



(86) Date de dépôt PCT/PCT Filing Date: 2012/09/12
(87) Date publication PCT/PCT Publication Date: 2013/03/21
(85) Entrée phase nationale/National Entry: 2014/03/13
(86) N° demande PCT/PCT Application No.: US 2012/054862
(87) N° publication PCT/PCT Publication No.: 2013/040033
(30) Priorité/Priority: 2011/09/13 (US61/534,073)

(51) Cl.Int./Int.Cl. *C12N 15/82* (2006.01),
C12N 15/113 (2010.01), *C12N 15/54* (2006.01),
C12N 15/87 (2006.01), *C12Q 1/68* (2006.01)

(71) Demandeur/Applicant:
MONSANTO TECHNOLOGY LLC, US

(72) Inventeurs/Inventors:
ADER, DANIEL, US;
DIMMIC, MATT W., US;
LI, ZHAOLONG, US;
SAMMONS, ROBERT DOUGLAS, US;
SHAH, RONAK HASMUKH, US;
TAO, NENGBING, US;
WANG, DAFU, US

(74) Agent: OSLER, HOSKIN & HARCOURT LLP

(54) Titre : PROCÉDES ET COMPOSITIONS DE LUTTE CONTRE LES MAUVAISES HERBES
(54) Title: METHODS AND COMPOSITIONS FOR WEED CONTROL

(57) **Abrégé/Abstract:**

The present invention provides novel compositions for use to enhance weed control. Specifically, the present invention provides for methods and compositions that modulate Acetyl- CoA carboxylase in weed species. The present invention also provides for combinations of compositions and methods that enhance weed control.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2013/040033 A8

(43) International Publication Date
21 March 2013 (21.03.2013)

- (51) **International Patent Classification:**
C12N 15/82 (2006.01)

(21) **International Application Number:**
PCT/US2012/054862

(22) **International Filing Date:**
12 September 2012 (12.09.2012)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**
61/534,073 13 September 2011 (13.09.2011) US

(71) **Applicant (for all designated States except US):**
MONSANTO TECHNOLOGY LLC [US/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US).

(72) **Inventors; and**

(75) **Inventors/Applicants (for US only):** **ADER, Daniel** [US/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US). **DIMMIC, Matt, W.** [US/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US). **LI, Zhaolong** [CN/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US). **SAMMONS, Robert, Douglas** [US/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US). **SHAH, Ronak, Has-mukh** [IN/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US). **TAO, Nengbing** [US/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US). **WANG, Dafu** [CN/US]; 800 North Lindbergh Boulevard, Mail Zone E1na, St. Louis, MO 63167 (US).

(74) **Agent:** **MCBRIDE, Thomas, P.**; Monsanto Technology LLC, 800 North Lindbergh Boulevard, Attention: Gail Wuellner, Mail Zone E1NA, St. Louis, MO 63167 (US).

(81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

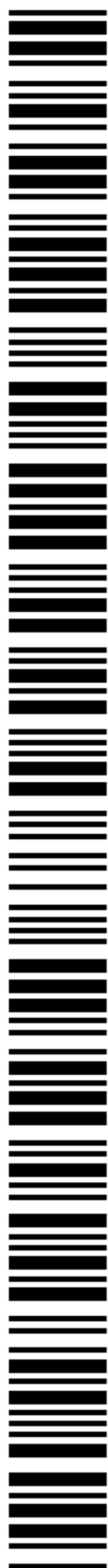
(84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 - with international search report (Art. 21(3))
 - with sequence listing part of description (Rule 5.2(a))

(48) **Date of publication of this corrected version:**
20 June 2013

(15) **Information about Correction:**
see Notice of 20 June 2013



WO 2013/040033 A8

(54) **Title:** METHODS AND COMPOSITIONS FOR WEED CONTROL

(57) **Abstract:** The present invention provides novel compositions for use to enhance weed control. Specifically, the present invention provides for methods and compositions that modulate Acetyl- CoA carboxylase in weed species. The present invention also provides for combinations of compositions and methods that enhance weed control.

METHODS AND COMPOSITIONS FOR WEED CONTROL

This application claims benefit under 35USC § 119(e) of United States provisional application serial no. 61/534,073 filed 09/13/2011, herein incorporated by reference in its entirety. The sequence listing that is contained in the file named “40_21(58637)B seq listing.txt”, which is 2,094,591 bytes (measured in operating system MS-Windows) and was created on 6 Sept 2012, is filed herewith and incorporated herein by reference.

FIELD OF THE INVENTION

The invention relates generally to the field of weed management. More specifically, the invention relates to acetyl-CoA carboxylase (ACCase) genes in weedy plants and compositions containing polynucleotide molecules for modulating their expression. The invention further provides methods and compositions useful for weed control.

BACKGROUND OF THE INVENTION

Weeds are plants that compete with cultivated plants in an agronomic environment and cost farmers billions of dollars annually in crop losses and the expense of efforts to keep weeds under control. Weeds also serve as hosts for crop diseases and insect pests. The losses caused by weeds in agricultural production environments include decreases in crop yield, reduced crop quality, increased irrigation costs, increased harvesting costs, reduced land value, injury to livestock, and crop damage from insects and diseases harbored by the weeds. The principal means by which weeds cause these effects are: 1) competing with crop plants for water, nutrients, sunlight and other essentials for growth and development, 2) production of toxic or irritant chemicals that cause human or animal health problem, 3) production of immense quantities of seed or vegetative reproductive parts or both that contaminate agricultural products and perpetuate the species in agricultural lands, and 4) production on agricultural and nonagricultural lands of vast amounts of vegetation that must be disposed of. Herbicide tolerant weeds are a problem with nearly all herbicides in use, there is a need to effectively manage these weeds. There are over 365 weed biotypes currently identified as being herbicide resistant to one or more herbicides by the Herbicide Resistance Action Committee (HRAC), the North American

Herbicide Resistance Action Committee (NAHRAC), and the Weed Science Society of America (WSSA).

The Acetyl-CoA carboxylase (ACCase) enzyme catalyzes the biotin-dependent carboxylation of acetyl-CoA to produce malonyl-CoA, this is the first and the committed step in the biosynthesis of long-chain fatty acids. This enzyme is the target of many herbicides that include members of the chemical families of aryloxyphenoxypropionates, cyclohexanediones and phenylpyrazoline..

SUMMARY OF THE INVENTION

In one aspect, the invention provides a method of weedy plant control comprising an external application to a weedy plant of a composition comprising a polynucleotide and a transfer agent, wherein the polynucleotide is essentially identical or essentially complementary to an ACCase gene sequence or fragment thereof, or to the RNA transcript of said ACCase gene sequence or fragment thereof, wherein said ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof, whereby the weedy plant growth or development or reproductive ability is reduced or the weedy plant is more sensitive to an ACCase inhibitor herbicide relative to a weedy plant not treated with said composition. In this manner, plants that have become resistant to the application of an ACCase inhibitor containing herbicides may be made more susceptible to the herbicidal effects of an ACCase inhibitor containing herbicide, thus potentiating the effect of the herbicide. The polynucleotide fragment is at least 18 contiguous nucleotides, at least 19 contiguous nucleotides, at least 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92 and the transfer agent is an organosilicone composition or compound. The polynucleotide fragment can also be sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA, or dsDNA/RNA hybrids. The composition can include more than one polynucleotide fragments, and the composition can include an ACCase inhibitor herbicide and/or other herbicides that enhance the weed control activity of the composition.

In another aspect of the invention, polynucleotide molecules and methods for modulating ACCase gene expression in weedy plant species are provided. The method reduces, represses or otherwise delays expression of an ACCase gene in a weedy plant comprising an external

application to a weedy plant of a composition comprising a polynucleotide and a transfer agent, wherein the polynucleotide is essentially identical or essentially complementary to an ACCase gene sequence, represses or otherwise delays, or to the RNA transcript of the ACCase gene sequence, represses or otherwise delays, wherein the ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof. The polynucleotide fragment is at least 18 contiguous nucleotides, at least 19 contiguous nucleotides, at least 20 contiguous nucleotides at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92 and the transfer agent is an organosilicone compound. The polynucleotide fragment can also be sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA, or dsDNA/RNA hybrids.

In a further aspect of the invention, the polynucleotide molecule containing composition of the invention may be combined with other herbicidal compounds to provide additional control of unwanted plants in a field of cultivated plants.

In a further aspect, the polynucleotide molecule composition may be combined with any one or more additional agricultural chemicals, such as, insecticides, fungicides, nematocides, bactericides, acaricides, growth regulators, chemosterilants, semiochemicals, repellents, attractants, pheromones, feeding stimulants, biopesticides, microbial pesticides or other biologically active compounds to form a multi-component pesticide giving an even broader spectrum of agricultural protection.

BRIEF DESCRIPTION OF THE FIGURES

The following drawings form part of the present specification and are included to further demonstrate certain aspects of the present invention. The invention may be better understood by reference to one or more of these drawings in combination with the detailed description of specific embodiments presented herein. The invention can be more fully understood from the following description of the figures:

Figure 1. Treatment of *Amaranthus palmer* with ssDNA trigger polynucleotides and ACCase inhibitor herbicide, clethodim.

DETAILED DESCRIPTION

Provides are methods and compositions containing a polynucleotide that provide for regulation, repression or delay of ACCase (Acetyl-CoA carboxylase) gene expression and enhanced control of weedy plant species and importantly ACCase inhibitor resistant weed biotypes. Aspects of the method can be applied to manage various weedy plants in agronomic and other cultivated environments.

The following definitions and methods are provided to better define the present invention and to guide those of ordinary skill in the art in the practice of the present invention. Unless otherwise noted, terms are to be understood according to conventional usage by those of ordinary skill in the relevant art. Where a term is provided in the singular, the inventors also contemplate aspects of the invention described by the plural of that term.

By “non-transcribable” polynucleotides is meant that the polynucleotides do not comprise a complete polymerase II transcription unit. As used herein “solution” refers to homogeneous mixtures and non-homogeneous mixtures such as suspensions, colloids, micelles, and emulsions.

Weedy plants are plants that compete with cultivated plants, those of particular importance include, but are not limited to important invasive and noxious weeds and herbicide resistant biotypes in crop production, such as, *Amaranthus* species -*A. albus*, *A. blitoides*, *A. hybridus*, *A. palmeri*, *A. powellii*, *A. retroflexus*, *A. spinosus*, *A. tuberculatus*, and *A. viridis*; *Ambrosia* species - *A. trifida*, *A. artemisifolia*; *Lolium* species -*L. multiflorum*, *L. rigidum*, *L. perenne*; *Digitaria* species -*D. insularis*; *Euphorbia* species -*E. heterophylla*; *Kochia* species - *K. scoparia*; *Sorghum* species -*S. halepense*; *Conyza* species -*C. bonariensis*, *C. canadensis*, *C. sumatrensis*; *Chloris* species -*C. truncate*; *Echinochloa* species - *E. colona*, *E. crus-galli*; *Eleusine* species -*E. indica*; *Poa* species -*P. annua*; *Plantago* species -*P. lanceolata*; *Avena* species - *A. fatua*; *Chenopodium* species - *C. album*; *Setaria* species – *S. viridis*, *Abutilon theophrasti*, *Ipomoea* species, *Sesbania*, species, *Cassia* species, *Sida* species, *Brachiaria*, species and *Solanum* species.

Additional weedy plant species found in cultivated areas include *Alopecurus myosuroides*, *Avena sterilis*, *Avena sterilis ludoviciana*, *Brachiaria plantaginea*, *Bromus diandrus*, *Bromus rigidus*, *Cynosurus echinatus*, *Digitaria ciliaris*, *Digitaria ischaemum*, *Digitaria sanguinalis*, *Echinochloa oryzicola*, *Echinochloa phyllopogon*, *Eriochloa punctata*, *Hordeum glaucum*, *Hordeum leporinum*, *Ischaemum rugosum*, *Leptochloa chinensis*, *Lolium*

persicum, , *Phalaris minor*, *Phalaris paradoxa*, *Rottboellia exalta*, *Setaria faberi*, *Setaria viridis* var, *robusta-alba schreiber*, *Setaria viridis* var, *robusta -purpurea*, *Snowdenia polystachea*, *Sorghum sudanese*, *Alisma plantago-aquatica*, *Amaranthus lividus*, *Amaranthus quitensis*, *Ammania auriculata*, *Ammania coccinea*, *Anthemis cotula*, *Apera spica-venti*, *Bacopa rotundifolia*, *Bidens pilosa*, *Bidens subalternans*, *Brassica tournefortii*, *Bromus tectorum*, *Camelina microcarpa*, *Chrysanthemum coronarium*, *Cuscuta campestris*, *Cyperus difformis*, *Damasonium minus*, *Descurainia sophia*, *Diploaxis tenuifolia*, *Echium plantagineum*, *Elatine triandra* var, *pedicellata*, *Euphorbia heterophylla*, *Fallopia convolvulus*, *Fimbristylis miliacea*, *Galeopsis tetrahit*, *Galium spurium*, *Helianthus annuus*, *Iva xanthifolia*, *Ixophorus unisetus*, *Ipomoea indica*, *Ipomoea purpurea*, *Ipomoea sepiaria*, *Ipomoea aquatic*, *Ipomoea triloba*, *Lactuca serriola*, *Limnocharis flava*, *Limnophila erecta*, *Limnophila sessiliflora*, *Lindernia dubia*, *Lindernia dubia* var, *major*, *Lindernia micrantha*, *Lindernia procumbens*, *Mesembryanthemum crystallinum*, *Monochoria korsakowii*, *Monochoria vaginalis*, *Neslia paniculata*, *Papaver rhoeas*, *Parthenium hysterophorus*, *Pentzia suffruticosa*, *Phalaris minor*, *Raphanus raphanistrum*, *Raphanus sativus*, *Rapistrum rugosum*, *Rotala indica* var, *uliginosa*, *Sagittaria guyanensis*, *Sagittaria montevidensis*, *Sagittaria pygmaea*, *Salsola iberica*, *Scirpus juncoides* var, *ohwianus*, *Scirpus mucronatus*, *Setaria lutescens*, *Sida spinosa*, *Sinapis arvensis*, *Sisymbrium orientale*, *Sisymbrium thellungii*, *Solanum ptycanthum*, *Sonchus asper*, *Sonchus oleraceus*, *Sorghum bicolor*, *Stellaria media*, *Thlaspi arvense*, *Xanthium strumarium*, *Arctotheca calendula*, *Conyza sumatrensis*, *Crassocephalum crepidiodes*, *Cuphea carthagenensis*, *Epilobium adenocaulon*, *Erigeron philadelphicus*, *Landoltia punctata*, *Lepidium virginicum*, *Monochoria korsakowii*, *Solanum americanum*, *Solanum nigrum*, *Vulpia bromoides*, *Youngia japonica*, *Hydrilla verticillata*, *Carduus nutans*, *Carduus pycnocephalus*, *Centaurea solstitialis*, *Cirsium arvense*, *Commelina diffusa*, *Convolvulus arvensis*, *Daucus carota*, *Digitaria ischaemum*, *Echinochloa crus-pavonis*, *Fimbristylis miliacea*, *Galeopsis tetrahit*, *Galium spurium*, *Limnophila erecta*, *Matricaria perforate*, *Papaver rhoeas*, *Ranunculus acris*, *Soliva sessilis*, *Sphenoclea zeylanica*, *Stellaria media*, *Nassella trichotoma*, *Stipa neesiana*, *Agrostis stolonifera*, *Polygonum aviculare*, *Alopecurus japonicus*, *Beckmannia syzigachne*, *Bromus tectorum*, *Chloris inflata*, *Echinochloa erecta*, *Portulaca oleracea*, and *Senecio vulgaris*. It is believed that all plants contain a phytoene desaturase gene in their genome, the sequence of which can be isolated and polynucleotides made according to the methods of the present invention that are useful for

regulation, suppressing or delaying the expression of the target ACCase gene in the plants and the growth or development of the treated plants.

Some cultivated plants may also be weedy plants when they occur in unwanted environments. For example, corn plants growing in a soybean field. Transgenic crops with one or more herbicide tolerances will need specialized methods of management to control weeds and volunteer crop plants. The present invention enables the targeting of a transgene for herbicide tolerance to permit the treated plants to become sensitive to the herbicide. For example, transgene ACCase DNA sequences in transgenic events that include DAS-40278-9.

A “trigger” or “trigger polynucleotide” is a polynucleotide molecule that is homologous or complementary to a target gene polynucleotide. The trigger polynucleotide molecules modulate expression of the target gene when topically applied to a plant surface with a transfer agent, whereby a plant treated with said composition has its growth or development or reproductive ability regulated, suppressed or delayed or said plant is more sensitive to an ACCase inhibitor herbicide as a result of said polynucleotide containing composition relative to a plant not treated with a composition containing the trigger molecule.

It is contemplated that the composition of the present invention will contain multiple polynucleotides and herbicides that include but not limited to ACCase gene trigger polynucleotides and an ACCase inhibitor herbicide and anyone or more additional herbicide target gene trigger polynucleotides and the related herbicides and anyone or more additional essential gene trigger polynucleotides. Essential genes are genes in a plant that provide key enzymes or other proteins, for example, a biosynthetic enzyme, metabolizing enzyme, receptor, signal transduction protein, structural gene product, transcription factor, or transport protein; or regulating RNAs, such as, microRNAs, that are essential to the growth or survival of the organism or cell or involved in the normal growth and development of the plant (Meinke, et al., Trends Plant Sci. 2008 Sep;13(9):483-91). The suppression of an essential gene enhances the effect of a herbicide that affects the function of a gene product different than the suppressed essential gene. The compositions of the present invention can include various trigger polynucleotides that modulate the expression of an essential gene other than ACCase.

Herbicides for which transgenes for plant tolerance have been demonstrated and the method of the present invention can be applied, include but are not limited to: auxin-like herbicides, glyphosate, glufosinate, sulfonyleureas, imidazolinones, bromoxynil, delapon,

dicamba, cyclohezanedione, protoporphyrionogen oxidase inhibitors, 4-hydroxyphenyl-pyruvate-dioxygenase inhibitors herbicides. For example, transgenes and their polynucleotide molecules that encode proteins involved in herbicide tolerance are known in the art, and include, but are not limited to an 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS), for example, as more fully described in U.S. Pat. Nos. 7,807,791 (SEQ ID NO:5); 6,248,876 B1; 5,627,061; 5,804,425; 5,633,435; 5,145,783; 4,971,908; 5,3072,910; 5,188,642; 4,940,835; 5,866,775; 6,225,114 B1; 6,130,366; 5,3070,667; 4,535,060; 4,769,061; 5,633,448; 5,510,471; U.S. Pat. No. Re. 36,449; U.S. Pat. Nos. RE 37,287 E; and 5,491,288; tolerance to sulfonylurea and/or imidazolinone, for example, as described more fully in U.S. Pat. Nos. 5,605,011; 5,013,659; 5,141,870; 5,767,361; 5,7307,180; 5,304,732; 4,761,373; 5,3307,107; 5,928,937; and 5,378,824; and international publication WO 96/33270; tolerance to hydroxyphenylpyruvatedioxygenases inhibitiong herbicides in plants are described in U.S. Pat. Nos. 6,245,968 B1; 6,268,549; and 6,069,115; US Pat.Pub. 20110191897 and US7,3072,379 SEQ ID NO:3; US7,935,869; US7,304,209, SEQ ID NO:1, 3,5 and 15; aryloxyalkanoate dioxygenase polynucleotides, which confer tolerance to 2,4-D and other phenoxy auxin herbicides as well as to aryloxyphenoxypropionate herbicides as described, for example, in WO2005/107437; US7,838,733 SEQ ID NO:5;) and dicamba-tolerance polynucleotides as described, for example, in Herman et al. (2005) J. Biol. Chem. 280: 24759-24767. Other examples of herbicide-tolerance traits include those conferred by polynucleotides encoding an exogenous phosphinothricin acetyltransferase, as described in U.S. Pat. Nos. 5,969,213; 5,489,520; 5,550,3078; 5,874,265; 5,919,675; 5,561,236; 5,648,477; 5,646,024; 6,177,616; and 5,879,903. Plants containing an exogenous phosphinothricin acetyltransferase can exhibit improved tolerance to glufosinate herbicides, which inhibit the enzyme glutamine synthase. Additionally, herbicide-tolerance polynucleotides include those conferred by polynucleotides conferring altered protoporphyrinogen oxidase (protox) activity, as described in U.S. Pat. Nos. 6,288,306 B1; 6,282,837 B1; and 5,767,373; and WO 01/12825. Plants containing such polynucleotides can exhibit improved tolerance to any of a variety of herbicides which target the protox enzyme (also referred to as protox inhibitors). Polynucleotides encoding a glyphosate oxidoreductase and a glyphosate-N-acetyl transferase (GOX described in U.S. Patent 5,463,175 and GAT described in U.S. Patent publication 20030083480, dicamba monooxygenase U.S. Patent publication 20030135879, all of which are incorporated herein by reference); a polynucleotide molecule encoding bromoxynil nitrilase (*Bxn*

described in U.S. Patent No. 4,810,648 for Bromoxynil tolerance, which is incorporated herein by reference); a polynucleotide molecule encoding phytoene desaturase (*crtI*) described in Misawa et al, (1993) *Plant J.* 4:833-840 and Misawa et al, (1994) *Plant J.* 6:481-489 for norflurazon tolerance; a polynucleotide molecule encoding acetohydroxyacid synthase (AHAS, *aka* ALS) described in Sathasiivan *et al.* (1990) *Nucl. Acids Res.* 18:3078-2193 for tolerance to sulfonylurea herbicides; and the *bar* gene described in DeBlock, *et al.* (1987) *EMBO J.* 6:2513-2519 for glufosinate and bialaphos tolerance. The transgenic coding regions and regulatory elements of the herbicide tolerance genes are targets in which polynucleotide triggers and herbicides can be included in the composition of the present invention.

The composition of the present invention include a component that is an ACCase inhibitor herbicide, which include members of the chemical families of aryloxyphenoxypropionates, cyclohexanediones and phenylpyrazoline that include, but are not limited to an aryloxyphenoxypropionate comprising clodinafop (Propanoic acid, 2-[4-[(5-chloro-3-fluoro-2-pyridinyl)oxy]phenoxy]-,2-propynyl ester, (2R)), cyhalofop (butyl(2R)-2-[4-(4-cyano-2-fluorophenoxy)phenoxy] propionate), diclofop (methyl 2-[4-(2,4-dichlorophenoxy)phenoxy]propanoate), fenoxaprop (ethyl (*R*)-2-[4-(6-chloro-1,3-benzoxazol-2-yloxy)phenoxy]propionate), fluazifop (2*R*)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoic acid), haloxyfop (2-[4-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoic acid), propaquizafop (2-[[1-methylethylidene)amino]oxy]ethyl (2*R*)-2-[4-[(6-chloro-2-quinoxalinyloxy]phenoxy]propanoate) and quizalofop(2*R*)-2-[4-[(6-chloro-2-quinoxalinyloxy]phenoxy]propanoic acid; a cyclohexanedione comprising alloxydim (methyl 2,2-dimethyl-4,6-dioxo-5-[(1*E*)-1-[(2-propen-1-yloxy)imino]butyl]cyclohexanecarboxylate), butroxydim (2-[1-(ethoxyimino)propyl]-3-hydroxy-5-[2,4,6-trimethyl-3-(1-oxobutyl)phenyl]-2-cyclohexen-1-one), clethodim (2-[1-[[[(2*E*)-3-chloro-2-propen-1-yl]oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one), cycloxydim (2-[1-(ethoxyimino)butyl]-3-hydroxy-5-(tetrahydro-2*H*-thiopyran-3-yl)-2-cyclohexen-1-one), profoxydim (2-[1-[[2-(4-chlorophenoxy)propoxy]imino]butyl]-3-hydroxy-5-(tetrahydro-2*H*-thiopyran-3-yl)-2-cyclohexen-1-one), sethoxydim (2-[1-(ethoxyimino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one), tepraloxym (2-[1-[[[(2*E*)-3-chloro-2-propen-1-yl]oxy]imino]propyl]-3-hydroxy-5-(tetrahydro-2*H*-pyran-4-yl)-2-cyclohexen-1-one) and tralkoxydim (2-[1-

(ethoxyimino)propyl]-3-hydroxy-5-(2,4,6-trimethylphenyl)-2-cyclohexen-1-one); a phenylpyrazoline comprising pinoxaden (8-(2,6-diethyl-4-methylphenyl)-1,2,4,5-tetrahydro-7-oxo-7*H*-pyrazolo[1,2-*d*][1,4,5]oxadiazepin-9-yl 2,2-dimethylpropanoate).

Numerous herbicides with similar or different modes of action (herein referred to as co-herbicides) are available that can be added to the composition of the present invention, for example, members of the herbicide families that include but are not limited to amide herbicides, aromatic acid herbicides, arsenical herbicides, benzothiazole herbicides, benzoylcyclohexanedione herbicides, benzofuranyl alkylsulfonate herbicides, carbamate herbicides, cyclohexene oxime herbicides, cyclopropylisoxazole herbicides, dicarboximide herbicides, dinitroaniline herbicides, dinitrophenol herbicides, diphenyl ether herbicides, dithiocarbamate herbicides, halogenated aliphatic herbicides, imidazolinone herbicides, inorganic herbicides, nitrile herbicides, organophosphorus herbicides, oxadiazolone herbicides, oxazole herbicides, phenoxy herbicides, phenylenediamine herbicides, pyrazole herbicides, pyridazine herbicides, pyridazinone herbicides, pyridine herbicides, pyrimidinediamine herbicides, pyrimidinyloxybenzylamine herbicides, quaternary ammonium herbicides, thiocarbamate herbicides, thiocarbonate herbicides, thiourea herbicides, triazine herbicides, triazinone herbicides, triazole herbicides, triazolone herbicides, triazolopyrimidine herbicides, uracil herbicides, and urea herbicides. In particular, the rates of use of the added herbicides can be reduced in compositions comprising the polynucleotides of the invention. Use rate reductions of the additional added herbicides can be 10-25 percent, 26-50 percent, 51-75 percent or more can be achieved that enhance the activity of the polynucleotides and herbicide composition and is contemplated as an aspect of the invention. Representative co-herbicides of the families include but are not limited to acetochlor, acifluorfen, acifluorfen-sodium, aclonifen, acrolein, alachlor, alloxymid, allyl alcohol, ametryn, amicarbazone, amidosulfuron, aminopyralid, amitrole, ammonium sulfamate, anilofos, asulam, atraton, atrazine, azimsulfuron, BCPC, beflubutamid, benazolin, benfluralin, benfuresate, bensulfuron, bensulfuron-methyl, bensulide, bentazone, benzfendazole, benzobicyclon, benzofenap, bifenox, bilanafos, bispyribac, bispyribac-sodium, borax, bromacil, bromobutide, bromoxynil, butachlor, butafenacil, butamifos, butralin, butroxydim, butylate, cacodylic acid, calcium chlorate, cafenstrole, carbetamide, carfentrazone, carfentrazone-ethyl, CDEA, CEPC, chlorflurenol, chlorflurenol-methyl, chloridazon, chlorimuron, chlorimuron-ethyl, chloroacetic acid,

chlorotoluron, chlorpropham, chlorsulfuron, chlorthal, chlorthal-dimethyl, cinidon-ethyl, cinmethylin, cinosulfuron, cisanilide, clethodim, clodinafop, clodinafop-propargyl, clomazone, clomeprop, clopyralid, cloransulam, cloransulam-methyl, CMA, 4-CPB, CPMF, 4-CPP, CPPC, cresol, cumyluron, cyanamide, cyanazine, cycloate, cyclosulfamuron, cycloxydim, cyhalofop, cyhalofop-butyl, 2,4-D, 3,4-DA, daimuron, dalapon, dazomet, 2,4-DB, 3,4-DB, 2,4-DEB, desmedipham, dicamba, dichlobenil, ortho-dichlorobenzene, para-dichlorobenzene, dichlorprop, dichlorprop-P, diclofop, diclofop-methyl, diclosulam, difenzoquat, difenzoquat metilsulfate, diflufenican, diflufenzopyr, dimefuron, dimepiperate, dimethachlor, dimethametryn, dimethenamid, dimethenamid-P, dimethipin, dimethylarsinic acid, dinitramine, dinoterb, diphenamid, diquat, diquat dibromide, dithiopyr, diuron, DNOC, 3,4-DP, DSMA, EBEP, endothal, EPTC, esprocarb, ethalfluralin, ethametsulfuron, ethametsulfuron-methyl, ethofumesate, ethoxyfen, ethoxysulfuron, etobenzanid, fenoxaprop-P, fenoxaprop-P-ethyl, fentrazamide, ferrous sulfate, flamprop-M, flazasulfuron, florasulam, fluazifop, fluazifop-butyl, fluazifop-P, fluazifop-P-butyl, flucarbazone, flucarbazone-sodium, flucetosulfuron, fluchloralin, flufenacet, flufenpyr, flufenpyr-ethyl, flumetsulam, flumiclorac, flumiclorac-pentyl, flumioxazin, fluometuron, fluoroglycofen, fluoroglycofen-ethyl, flupropanate, flupyrsulfuron, flupyrsulfuron-methyl-sodium, flurenol, fluridone, fluorchloridone, fluoroxypyr, flurtamone, fluthiacet, fluthiacet-methyl, fomesafen, foramsulfuron, fosamine, glufosinate, glufosinate-ammonium, glyphosate, halosulfuron, halosulfuron-methyl, haloxyfop, haloxyfop-P, HC-252, hexazinone, imazamethabenz, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, indanofan, iodomethane, iodosulfuron, iodosulfuron-methyl-sodium, ioxynil, isoproturon, isouron, isoxaben, isoxachlortole, isoxaflutole, karbutilate, lactofen, lenacil, linuron, MAA, MAMA, MCPA, MCPA-thioethyl, MCPB, mecoprop, mecoprop-P, mefenacet, mefluidide, mesosulfuron, mesosulfuron-methyl, mesotrione, metam, metamifop, metamidron, metazachlor, methabenzthiazuron, methylarsonic acid, methyldymron, methyl isothiocyanate, metobenzuron, metolachlor, S-metolachlor, metosulam, metoxuron, metribuzin, metsulfuron, metsulfuron-methyl, MK-66, molinate, monolinuron, MSMA, naproanilide, napropamide, naptalam, neburon, nicosulfuron, nonanoic acid, norflurazon, oleic acid (fatty acids), orbencarb, orthosulfamuron, oryzalin, oxadiargyl, oxadiazon, oxasulfuron, oxaziclomefone, oxyfluorfen, paraquat, paraquat dichloride, pebulate,

pendimethalin, penoxsulam, pentachlorophenol, pentanochlor, pentoxazone, pethoxamid, petroleum oils, phenmedipham, phenmedipham-ethyl, picloram, picolinafen, pinoxaden, piperophos, potassium arsenite, potassium azide, pretilachlor, primisulfuron, primisulfuron-methyl, prodiamine, profluazol, profoxydim, prometon, prometryn, propachlor, propanil, propaquizafop, propazine, propham, propisochlor, propoxycarbazone, propoxycarbazone-sodium, propyzamide, prosulfocarb, prosulfuron, pyraclonil, pyraflufen, pyraflufen-ethyl, pyrazolynate, pyrazosulfuron, pyrazosulfuron-ethyl, pyrazoxyfen, pyribenzoxim, pyributicarb, pyridafol, pyridate, pyriftalid, pyriminobac, pyriminobac-methyl, pyrimisulfan, pyriothiobac, pyriothiobac-sodium, quinclorac, quinmerac, quinclamine, quizalofop, quizalofop-P, rimsulfuron, sethoxydim, siduron, simazine, simetryn, SMA, sodium arsenite, sodium azide, sodium chlorate, sulcotrione, sulfentrazone, sulfometuron, sulfometuron-methyl, sulfosate, sulfosulfuron, sulfuric acid, tar oils, 2,3,6-TBA, TCA, TCA-sodium, tebuthiuron, tepraloxym, terbacil, terbumeton, terbuthylazine, terbutryn, thenylchlor, thiazopyr, thifensulfuron, thifensulfuron-methyl, thiobencarb, tiocarbamil, topramezone, tralkoxydim, tri-allate, triasulfuron, triaziflam, tribenuron, tribenuron-methyl, tricamba, triclopyr, trietazine, trifloxysulfuron, trifloxysulfuron-sodium, trifluralin, triflusulfuron, triflusulfuron-methyl, trihydroxytriazine, tritosulfuron, [3-[2-chloro-4-fluoro-5-(-methyl-6-trifluoromethyl-2,4-dioxo-,2,3,4-t- etrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetic acid ethyl ester (CAS RN 353292-3-6), 4-[(4,5-dihydro-3-methoxy-4-methyl-5-oxo)-H-,2,4-triazol--ylcarbonyl- sulfamoyl]-5-methylthiophene-3-carboxylic acid (BAY636), BAY747 (CAS RN 33504-84-2), topramezone (CAS RN 2063-68-8), 4-hydroxy-3-[[2-[(2-methoxyethoxy)methyl]-6-(trifluoro-methyl)-3-pyridi- nyl]carbonyl]-bicyclo[3.2.]oct-3-en-2-one (CAS RN 35200-68-5), and 4-hydroxy-3-[[2-(3-methoxypropyl)-6-(difluoromethyl)-3-pyridinyl]carbon- yl]-bicyclo[3.2.]oct-3-en-2-one. Additionally, including herbicidal compounds of unspecified modes of action as described in CN101279950A, CN101279951A, DE10000600A1, DE10116399A1, DE102004054666A1, DE102005014638A1, DE102005014906A1, DE102007012168A1, DE102010042866A1, DE10204951A1, DE10234875A1, DE10234876A1, DE10256353A1, DE10256354A1, DE10256367A1, EP1157991A2, EP1238586A1, EP2147919A1, EP2160098A2, JP03968012B2, JP2001253874A, JP2002080454A, JP2002138075A, JP2002145707A, JP2002220389A, JP2003064059A, JP2003096059A, JP2004051628A, JP2004107228A, JP2005008583A, JP2005239675A,

JP2005314407A, JP2006232824A, JP2006282552A, JP2007153847A, JP2007161701A, JP2007182404A, JP2008074840A, JP2008074841A, JP2008133207A, JP2008133218A, JP2008169121A, JP2009067739A, JP2009114128A, JP2009126792A, JP2009137851A, US20060111241A1, US20090036311A1, US20090054240A1, US20090215628A1, US20100099561A1, US20100152443A1, US20110105329A1, US20110201501A1, WO2001055066A2, WO2001056975A1, WO2001056979A1, WO2001090071A2, WO2001090080A1, WO2002002540A1, WO2002028182A1, WO2002040473A1, WO2002044173A2, WO2003000679A2, WO2003006422A1, WO2003013247A1, WO2003016308A1, WO2003020704A1, WO2003022051A1, WO2003022831A1, WO2003022843A1, WO2003029243A2, WO2003037085A1, WO2003037878A1, WO2003045878A2, WO2003050087A2, WO2003051823A1, WO2003051824A1, WO2003051846A2, WO2003076409A1, WO2003087067A1, WO2003090539A1, WO2003091217A1, WO2003093269A2, WO2003104206A2, WO2004002947A1, WO2004002981A2, WO2004011429A1, WO2004029060A1, WO2004035545A2, WO2004035563A1, WO2004035564A1, WO2004037787A1, WO2004067518A1, WO2004067527A1, WO2004077950A1, WO2005000824A1, WO2005007627A1, WO2005040152A1, WO2005047233A1, WO2005047281A1, WO2005061443A2, WO2005061464A1, WO2005068434A1, WO2005070889A1, WO2005089551A1, WO2005095335A1, WO2006006569A1, WO2006024820A1, WO2006029828A1, WO2006029829A1, WO2006037945A1, WO2006050803A1, WO2006090792A1, WO2006123088A2, WO2006125687A1, WO2006125688A1, WO2007003294A1, WO2007026834A1, WO2007071900A1, WO2007077201A1, WO2007077247A1, WO2007096576A1, WO2007119434A1, WO2007134984A1, WO2008009908A1, WO2008029084A1, WO2008059948A1, WO2008071918A1, WO2008074991A1, WO2008084073A1, WO2008100426A2, WO2008102908A1, WO2008152072A2, WO2008152073A2, WO2009000757A1, WO2009005297A2, WO2009035150A2, WO2009063180A1, WO2009068170A2, WO2009068171A2, WO2009086041A1, WO2009090401A2, WO2009090402A2, WO2009115788A1, WO2009116558A1, WO2009152995A1, WO2009158258A1, WO2010012649A1, WO2010012649A1, WO2010026989A1, WO2010034153A1, WO2010049270A1, WO2010049369A1, WO2010049405A1, WO2010049414A1, WO2010063422A1, WO2010069802A1,

WO2010078906A2, WO2010078912A1, WO2010104217A1, WO2010108611A1, WO2010112826A3, WO2010116122A3, WO2010119906A1, WO2010130970A1, WO2011003776A2, WO2011035874A1, WO2011065451A1, all of which are incorporated herein by reference.

An agronomic field in need of plant control is treated by application of the composition of the present invention directly to the surface of the growing plants, such as by a spray. For example, the method is applied to control weeds in a field of crop plants by spraying the field with the composition. The composition can be provided as a tank mix, a sequential treatment of components (generally the polynucleotide containing composition followed by the herbicide), or a simultaneous treatment or mixing of one or more of the components of the composition from separate containers. Treatment of the field can occur as often as needed to provide weed control and the components of the composition can be adjusted to target specific weed species or weed families through utilization of specific polynucleotides or polynucleotide compositions capable of selectively targeting the specific species or plant family to be controlled. The composition can be applied at effective use rates according to the time of application to the field, for example, preplant, at planting, post planting, post harvest. ACCase inhibitor herbicides can be applied to a field at rates of 10 to 500 g ai/ha (active ingredient per hectare) or more. The polynucleotides of the composition can be applied at rates of 1 to 30 grams per acre depending on the number of trigger molecules needed for the scope of weeds in the field.

Crop plants in which weed control is needed include but are not limited to, i) corn, soybean, cotton, canola, sugar beet, alfalfa, sugarcane, rice, and wheat; ii) vegetable plants including, but not limited to, tomato, sweet pepper, hot pepper, melon, watermelon, cucumber, eggplant, cauliflower, broccoli, lettuce, spinach, onion, peas, carrots, sweet corn, Chinese cabbage, leek, fennel, pumpkin, squash or gourd, radish, Brussels sprouts, tomatillo, garden beans, dry beans, or okra; iii) culinary plants including, but not limited to, basil, parsley, coffee, or tea; or, iv) fruit plants including but not limited to apple, pear, cherry, peach, plum, apricot, banana, plantain, table grape, wine grape, citrus, avocado, mango, or berry; v) a tree grown for ornamental or commercial use, including, but not limited to, a fruit or nut tree; or, vi) an ornamental plant (e. g., an ornamental flowering plant or shrub or turf grass). The methods and compositions provided herein can also be applied to plants produced by a cutting, cloning, or grafting process (i. e., a plant not grown from a seed) include fruit trees and plants that include,

but are not limited to, citrus, apples, avocados, tomatoes, eggplant, cucumber, melons, watermelons, and grapes as well as various ornamental plants.

Pesticidal Mixtures

The polynucleotide compositions may also be used as mixtures with various agricultural chemicals and/or insecticides, miticides and fungicides, pesticidal and biopesticidal agents. Examples include but are not limited to azinphos-methyl, acephate, isoxathion, isofenphos, ethion, etrimfos, oxydemeton-methyl, oxydeprofos, quinalphos, chlorpyrifos, chlorpyrifos-methyl, chlorfenvinphos, cyanophos, dioxabenzofos, dichlorvos, disulfoton, dimethylvinphos, dimethoate, sulprofos, diazinon, thiometon, tetrachlorvinphos, temephos, tebupirimfos, terbufos, naled, vamidothion, pyraclofos, pyridafenthion, pirimiphos-methyl, fenitrothion, fenthion, phenthoate, flupyrazophos, prothiofos, propaphos, profenofos, phoxime, phosalone, phosmet, formothion, phorate, malathion, mecarbam, mesulfenfos, methamidophos, methidathion, parathion, methyl parathion, monocrotophos, trichlorphon, EPN, isazophos, isamidofos, cadusafos, diamidaphos, dichlofenthion, thionazin, fenamiphos, fosthiazate, fosthietan, phosphocarb, DSP, ethoprophos, alanycarb, aldicarb, isoprocarb, ethiofencarb, carbaryl, carbosulfan, xylylcarb, thiodicarb, pirimicarb, fenobucarb, furathiocarb, propoxur, bendiocarb, benfuracarb, methomyl, metolcarb, XMC, carbofuran, aldoxycarb, oxamyl, acrinathrin, allethrin, esfenvalerate, empenethrin, cycloprothrin, cyhalothrin, gamma-cyhalothrin, lambda-cyhalothrin, cyfluthrin, beta-cyfluthrin, cypermethrin, alpha-cypermethrin, zeta-cypermethrin, silafluofen, tetramethrin, tefluthrin, deltamethrin, tralomethrin, bifenthrin, phenothrin, fenvalerate, fenpropathrin, furamethrin, prallethrin, flucythrinate, fluvalinate, flubrocycythrinate, permethrin, resmethrin, ethofenprox, cartap, thiocyclam, bensultap, acetamiprid, imidacloprid, clothianidin, dinotefuran, thiacloprid, thiamethoxam, nitenpyram, chlorfluazuron, diflubenzuron, teflubenzuron, triflumuron, novaluron, noviflumuron, bistrifluoron, fluazuron, flucycloxuron, flufenoxuron, hexaflumuron, lufenuron, chromafenozide, tebufenozide, halofenozide, methoxyfenozide, diofenolan, cyromazine, pyriproxyfen, buprofezin, methoprene, hydroprene, kinoprene, triazamate, endosulfan, chlorfenson, chlorobenzilate, dicofol, bromopropylate, acetoprole, fipronil, ethiprole, pyrethrin, rotenone, nicotine sulphate, BT (*Bacillus Thuringiensis*) agent, spinosad, abamectin, acequinocyl, amidoflumet, amitraz, etoxazole, chinomethionat, clofentezine, fenbutatin oxide, dienochlor, cyhexatin, spiroadiclofen, spiromesifen, tetradifon, tebufenpyrad, binapacryl, bifenazate, pyridaben, pyrimidifen, fenazaquin, fenothiocarb,

fenpyroximate, fluacrypyrim, fluazinam, flufenzin, hexythiazox, propargite, benzomate, polynactin complex, milbemectin, lufenuron, mecarbam, methiocarb, mevinphos, halfenprox, azadirachtin, diafenthiuron, indoxacarb, emamectin benzoate, potassium oleate, sodium oleate, chlorfenapyr, tolfenpyrad, pymetrozine, fenoxycarb, hydramethylnon, hydroxy propyl starch, pyridalyl, flufenerim, flubendiamide, flonicamid, metaflumizole, lepimectin, TPIC, albendazole, oxibendazole, oxfendazole, trichlamide, fensulfothion, fenbendazole, levamisole hydrochloride, morantel tartrate, dazomet, metam-sodium, triadimefon, hexaconazole, propiconazole, ipconazole, prochloraz, triflumizole, tebuconazole, epoxiconazole, difenoconazole, flusilazole, triadimenol, cyproconazole, metconazole, fluquinconazole, bitertanol, tetraconazole, triticonazole, flutriafol, penconazole, diniconazole, fenbuconazole, bromuconazole, imibenconazole, simeconazole, myclobutanil, hymexazole, imazalil, furametpyr, thifluzamide, etridiazole, oxpoconazole, oxpoconazole fumarate, pefurazoate, prothioconazole, pyrifenox, fenarimol, nuarimol, bupirimate, mepanipyrim, cyprodinil, pyrimethanil, metalaxyl, mefenoxam, oxadixyl, benalaxyl, thiophanate, thiophanate-methyl, benomyl, carbendazim, fuberidazole, thiabendazole, manzeb, propineb, zineb, metiram, maneb, ziram, thiuram, chlorothalonil, ethaboxam, oxycarboxin, carboxin, flutolanil, silthiofam, mepronil, dimethomorph, fenpropidin, fenpropimorph, spiroxamine, tridemorph, dodemorph, flumorph, azoxystrobin, kresoxim-methyl, metominostrobin, orysastrobin, fluoxastrobin, trifloxystrobin, dimoxystrobin, pyraclostrobin, picoxystrobin, iprodione, procymidone, vinclozolin, chlozolate, flusulfamide, dazomet, methyl isothiocyanate, chloropicrin, methasulfocarb, hydroxyisoxazole, potassium hydroxyisoxazole, echlomezol, D-D, carbam, basic copper chloride, basic copper sulfate, copper nonylphenolsulfonate, oxine copper, DBEDC, anhydrous copper sulfate, copper sulfate pentahydrate, cupric hydroxide, inorganic sulfur, wettable sulfur, lime sulfur, zinc sulfate, fentin, sodium hydrogen carbonate, potassium hydrogen carbonate, sodium hypochlorite, silver, edifenphos, tolclofos-methyl, fosetyl, iprobenfos, dinocap, pyrazophos, carpropamid, fthalide, tricyclazole, pyroquilon, diclocymet, fenoxanil, kasugamycin, validamycin, polyoxins, blasticiden S, oxytetracycline, mildiomyacin, streptomycin, rape seed oil, machine oil, benthiavalicarbisopropyl, iprovalicarb, propamocarb, diethofencarb, fluoroimide, fludioxanil, fenpiclonil, quinoxifen, oxolinic acid, chlorothalonil, captan, folpet, probenazole, acibenzolar-S-methyl, tiadinil, cyflufenamid, fenhexamid, diflumetorim, metrafenone, picobenzamide, proquinazid, famoxadone, cyazofamid, fenamidone, zoxamide, boscalid, cymoxanil, dithianon,

fluazinam, dichlofluanide, triforine, isoprothiolane, ferimzone, diclomezine, tecloftalam, pencycuron, chinomethionat, iminoctadine acetate, iminoctadine albesilate, ambam, polycarbamate, thiadiazine, chloroneb, nickel dimethyldithiocarbamate, guazatine, dodecylguanidine-acetate, quintozone, tolylfluanid, anilazine, nitrothalisopropyl, fenitropan, dimethirimol, benthiazole, harpin protein, flumetover, mandipropamide and penthiopyrad.

Polynucleotides

As used herein, the term “DNA”, “DNA molecule”, “DNA polynucleotide molecule” refers to a single-stranded DNA (ssDNA) or double-stranded DNA (dsDNA) molecule of genomic or synthetic origin, such as, a polymer of deoxyribonucleotide bases or a DNA polynucleotide molecule. As used herein, the term “DNA sequence”, “DNA nucleotide sequence” or “DNA polynucleotide sequence” refers to the nucleotide sequence of a DNA molecule. As used herein, the term “RNA”, “RNA molecule”, “RNA polynucleotide molecule” refers to a single-stranded RNA (ssRNA) or double-stranded RNA (dsRNA) molecule of genomic or synthetic origin, such as, a polymer of ribonucleotide bases that comprise single or double stranded regions. Unless otherwise stated, nucleotide sequences in the text of this specification are given, when read from left to right, in the 5' to 3' direction. The nomenclature used herein is that required by Title 37 of the United States Code of Federal Regulations § 1.822 and set forth in the tables in WIPO Standard ST.25 (1998), Appendix 2, Tables 1 and 3.

As used herein, “polynucleotide” refers to a DNA or RNA molecule containing multiple nucleotides and generally refers both to “oligonucleotides” (a polynucleotide molecule of typically 50 or fewer nucleotides in length) and polynucleotides of 51 or more nucleotides. Embodiments of this invention include compositions including oligonucleotides having a length of 18-25 nucleotides (18-mers, 19-mers, 20-mers, 21-mers, 22-mers, 23-mers, 24-mers, or 25-mers), for example, oligonucleotides SEQ ID NO:3901-4530 or fragments thereof or medium-length polynucleotides having a length of 26 or more nucleotides (polynucleotides of 26, 27, 28, 29, 30, 307, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 110, about 120, about 130, about 140, about 150, about 160, about 170, about 180, about 190, about 200, about 210, about 220, about 230, about 240, about 250, about 260, about 270, about 280, about 290, or about 300 nucleotides), for example, oligonucleotides SEQ

ID NO:93-3900 or fragments thereof or long polynucleotides having a length greater than about 300 nucleotides (for example, polynucleotides of between about 300 to about 400 nucleotides, between about 400 to about 500 nucleotides, between about 500 to about 600 nucleotides, between about 600 to about 700 nucleotides, between about 700 to about 800 nucleotides, between about 800 to about 900 nucleotides, between about 900 to about 1000 nucleotides, between about 300 to about 500 nucleotides, between about 300 to about 600 nucleotides, between about 300 to about 700 nucleotides, between about 300 to about 800 nucleotides, between about 300 to about 900 nucleotides, or about 1000 nucleotides in length, or even greater than about 1000 nucleotides in length, for example up to the entire length of a target gene including coding or non-coding or both coding and non-coding portions of the target gene), for example, polynucleotides of Table 1 (SEQ ID NO:1-93) wherein the selected polynucleotides or fragments thereof are homologous or complementary to SEQ ID NO:1-93 suppresses, represses or otherwise delay the expression of the target ACCase gene. A target gene comprises any polynucleotide molecule in a plant cell or fragment thereof for which the modulation of the expression of the target gene is provided by the methods and compositions of the present invention. Where a polynucleotide is double-stranded, its length can be similarly described in terms of base pairs. Oligonucleotides and polynucleotides of the present invention can be made that are essentially identical or essentially complementary to adjacent genetic elements of a gene, for example, spanning the junction region of an intron and exon, the junction region of a promoter and a transcribed region, the junction region of a 5' leader and a coding sequence, the junction of a 3' untranslated region and a coding sequence.

Polynucleotide compositions used in the various embodiments of this invention include compositions including oligonucleotides or polynucleotides or a mixture of both, including RNA or DNA or RNA/DNA hybrids or chemically modified oligonucleotides or polynucleotides or a mixture thereof. In some embodiments, the polynucleotide may be a combination of ribonucleotides and deoxyribonucleotides, for example, synthetic polynucleotides consisting mainly of ribonucleotides but with one or more terminal deoxyribonucleotides or synthetic polynucleotides consisting mainly of deoxyribonucleotides but with one or more terminal dideoxyribonucleotides. In some embodiments, the polynucleotide includes non-canonical nucleotides such as inosine, thiouridine, or pseudouridine. In some embodiments, the polynucleotide includes chemically modified nucleotides. Examples of chemically modified

oligonucleotides or polynucleotides are well known in the art; see, for example, US Patent Publication 20110171287, US Patent Publication 20110171176, and US Patent Publication 20110152353, US Patent Publication, 20110152346, US Patent Publication 20110160082, herein incorporated by reference. For example, including but not limited to the naturally occurring phosphodiester backbone of an oligonucleotide or polynucleotide can be partially or completely modified with phosphorothioate, phosphorodithioate, or methylphosphonate internucleotide linkage modifications, modified nucleoside bases or modified sugars can be used in oligonucleotide or polynucleotide synthesis, and oligonucleotides or polynucleotides can be labeled with a fluorescent moiety (for example, fluorescein or rhodamine) or other label (for example, biotin).

The polynucleotides can be single- or double-stranded RNA or single- or double-stranded DNA or double-stranded DNA/RNA hybrids or modified analogues thereof, and can be of oligonucleotide lengths or longer. In more specific embodiments of the invention the polynucleotides that provide single-stranded RNA in the plant cell are selected from the group consisting of (a) a single-stranded RNA molecule (ssRNA), (b) a single-stranded RNA molecule that self-hybridizes to form a double-stranded RNA molecule, (c) a double-stranded RNA molecule (dsRNA), (d) a single-stranded DNA molecule (ssDNA), (e) a single-stranded DNA molecule that self-hybridizes to form a double-stranded DNA molecule, and (f) a single-stranded DNA molecule including a modified Pol III gene that is transcribed to an RNA molecule, (g) a double-stranded DNA molecule (dsDNA), (h) a double-stranded DNA molecule including a modified Pol III gene that is transcribed to an RNA molecule, (i) a double-stranded, hybridized RNA/DNA molecule, or combinations thereof. In some embodiments these polynucleotides include chemically modified nucleotides or non-canonical nucleotides. In some embodiments, the oligonucleotides may be blunt-ended or may comprise a 3' overhang of from 1-5 nucleotides of at least one or both of the strands. Other configurations of the oligonucleotide are known in the field and are contemplated herein. In embodiments of the method the polynucleotides include double-stranded DNA formed by intramolecular hybridization, double-stranded DNA formed by intermolecular hybridization, double-stranded RNA formed by intramolecular hybridization, or double-stranded RNA formed by intermolecular hybridization. In one embodiment the polynucleotides include single-stranded DNA or single-stranded RNA that self-hybridizes to form a hairpin structure having an at least partially double-stranded structure

including at least one segment that will hybridize to RNA transcribed from the gene targeted for suppression. Not intending to be bound by any mechanism, it is believed that such polynucleotides are or will produce single-stranded RNA with at least one segment that will hybridize to RNA transcribed from the gene targeted for suppression. In certain other embodiments the polynucleotides further includes a promoter, generally a promoter functional in a plant, for example, a pol II promoter, a pol III promoter, a pol IV promoter, or a pol V promoter.

The term "gene" refers to chromosomal DNA, plasmid DNA, cDNA, intron and exon DNA, artificial DNA polynucleotide, or other DNA that encodes a peptide, polypeptide, protein, or RNA transcript molecule, and the genetic elements flanking the coding sequence that are involved in the regulation of expression, such as, promoter regions, 5' leader regions, 3' untranslated regions. Any of the components of the gene are potential targets for the oligonucleotides and polynucleotides of the present invention.

The polynucleotide molecules of the present invention are designed to modulate expression by inducing regulation or suppression of an endogenous ACCase gene in a plant and are designed to have a nucleotide sequence essentially identical or essentially complementary to the nucleotide sequence of an endogenous ACCase gene of a plant or to the sequence of RNA transcribed from an endogenous ACCase gene of a plant, including a transgene in a plant that provides for a herbicide resistant ACCase enzyme, which can be coding sequence or non-coding sequence. Effective molecules that modulate expression are referred to as "a trigger molecule, or trigger polynucleotide". By "essentially identical" or "essentially complementary" is meant that the trigger polynucleotides (or at least one strand of a double-stranded polynucleotide or portion thereof, or a portion of a single strand polynucleotide) are designed to hybridize to the endogenous gene noncoding sequence or to RNA transcribed (known as messenger RNA or an RNA transcript) from the endogenous gene to effect regulation or suppression of expression of the endogenous gene. Trigger molecules are identified by "tiling" the gene targets with partially overlapping probes or non-overlapping probes of antisense or sense polynucleotides that are essentially identical or essentially complementary to the nucleotide sequence of an endogenous gene. Multiple target sequences can be aligned and sequence regions with homology in common, according to the methods of the present invention, are identified as potential trigger molecules for the multiple targets. Multiple trigger molecules of various lengths, for example

18-25 nucleotides, 26-50 nucleotides, 51-100 nucleotides, 101-200 nucleotides, 201-300 nucleotides or more can be pooled into a few treatments in order to investigate polynucleotide molecules that cover a portion of a gene sequence (for example, a portion of a coding versus a portion of a noncoding region, or a 5' versus a 3' portion of a gene) or an entire gene sequence including coding and noncoding regions of a target gene. Polynucleotide molecules of the pooled trigger molecules can be divided into smaller pools or single molecules in order to identify trigger molecules that provide the desired effect.

The target gene RNA and DNA polynucleotide molecules (Table 1, SEQ ID NO: 1-93) are sequenced by any number of available methods and equipment. Some of the sequencing technologies are available commercially, such as the sequencing-by-hybridization platform from Affymetrix Inc. (Sunnyvale, Calif.) and the sequencing-by-synthesis platforms from 454 Life Sciences (Bradford, Conn.), Illumina/Solexa (Hayward, Calif.) and Helicos Biosciences (Cambridge, Mass.), and the sequencing-by-ligation platform from Applied Biosystems (Foster City, Calif.), as described below. In addition to the single molecule sequencing performed using sequencing-by-synthesis of Helicos Biosciences, other single molecule sequencing technologies are encompassed by the method of the invention and include the SMRT.TM. technology of Pacific Biosciences, the Ion Torrent.TM. technology, and nanopore sequencing being developed for example, by Oxford Nanopore Technologies. An ACCase target gene comprising DNA or RNA can be isolated using primers or probes essentially complementary or essentially homologous to SEQ ID NO:1-93 or a fragment thereof. A polymerase chain reaction (PCR) gene fragment can be produced using primers essentially complementary or essentially homologous to SEQ ID NO:1-93 or a fragment thereof that is useful to isolate an ACCase gene from a plant genome. SEQ ID NO: 1-93 or fragments thereof can be used in various sequence capture technologies to isolate additional target gene sequences, for example, including but not limited to Roche NimbleGen® (Madison, WI) and Streptavidin-coupled Dynabeads® (Life Technologies, Grand Island, NY) and US20110015084, herein incorporated by reference in its entirety.

Embodiments of functional single-stranded polynucleotides have sequence complementarity that need not be 100 percent, but is at least sufficient to permit hybridization to RNA transcribed from the target gene or DNA of the target gene to form a duplex to permit a gene silencing mechanism. Thus, in embodiments, a polynucleotide fragment is designed to be

essentially identical to, or essentially complementary to, a sequence of 18 or more contiguous nucleotides in either the target ACCase gene sequence or messenger RNA transcribed from the target gene. By “essentially identical” is meant having 100 percent sequence identity or at least about 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, or 99 percent sequence identity when compared to the sequence of 18 or more contiguous nucleotides in either the target gene or RNA transcribed from the target gene; by “essentially complementary” is meant having 100 percent sequence complementarity or at least about 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, or 99 percent sequence complementarity when compared to the sequence of 18 or more contiguous nucleotides in either the target gene or RNA transcribed from the target gene. In some embodiments of this invention polynucleotide molecules are designed to have 100 percent sequence identity with or complementarity to one allele or one family member of a given target gene (coding or non-coding sequence of a gene for of the present invention); in other embodiments the polynucleotide molecules are designed to have 100 percent sequence identity with or complementarity to multiple alleles or family members of a given target gene.

In certain embodiments, the polynucleotides used in the compositions that are essentially identical or essentially complementary to the target gene or transcript will comprise the predominant nucleic acid in the composition. Thus in certain embodiments, the polynucleotides that are essentially identical or essentially complementary to the target gene or transcript will comprise at least about 50%, 75%, 95%, 98% or 100% of the nucleic acids provided in the composition by either mass or molar concentration. However, in certain embodiments, the polynucleotides that are essentially identical or essentially complementary to the target gene or transcript can comprise at least about 1% to about 50%, about 10% to about 50%, about 20% to about 50%, or about 30% to about 50% of the nucleic acids provided in the composition by either mass or molar concentration. Also provided are compositions where the polynucleotides that are essentially identical or essentially complementary to the target gene or transcript can comprise at least about 1% to 100%, about 10% to 100%, about 20% to about 100%, about 30% to about 50%, or about 50% to a 100% of the nucleic acids provided in the composition by either mass or molar concentration.

"Identity" refers to the degree of similarity between two polynucleic acid or protein sequences. An alignment of the two sequences is performed by a suitable computer program. A widely used and accepted computer program for performing sequence alignments is

CLUSTALW v1.6 (Thompson, et al. Nucl. Acids Res., 22: 4673-4680, 1994). The number of matching bases or amino acids is divided by the total number of bases or amino acids, and multiplied by 100 to obtain a percent identity. For example, if two 580 base pair sequences had 145 matched bases, they would be 25 percent identical. If the two compared sequences are of different lengths, the number of matches is divided by the shorter of the two lengths. For example, if there are 100 matched amino acids between a 200 and a 400 amino acid protein, they are 50 percent identical with respect to the shorter sequence. If the shorter sequence is less than 150 bases or 50 amino acids in length, the number of matches are divided by 150 (for nucleic acid bases) or 50 (for amino acids), and multiplied by 100 to obtain a percent identity.

Trigger molecules for specific gene family members can be identified from coding and/or non-coding sequences of gene families of a plant or multiple plants, by aligning and selecting 200-300 polynucleotide fragments from the least homologous regions amongst the aligned sequences and evaluated using topically applied polynucleotides (as sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA) to determine their relative effectiveness in inducing the herbicidal phenotype. The effective segments are further subdivided into 50-60 polynucleotide fragments, prioritized by least homology, and reevaluated using topically applied polynucleotides. The effective 50-60 polynucleotide fragments are subdivided into 19-30 polynucleotide fragments, prioritized by least homology, and again evaluated for induction of the yield/quality phenotype. Once relative effectiveness is determined, the fragments are utilized singly, or again evaluated in combination with one or more other fragments to determine the trigger composition or mixture of trigger polynucleotides for providing the yield/quality phenotype.

Trigger molecules for broad activity can be identified from coding and/or non-coding sequences of gene families of a plant or multiple plants, by aligning and selecting 200-300 polynucleotide fragments from the most homologous regions amongst the aligned sequences and evaluated using topically applied polynucleotides (as sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA) to determine their relative effectiveness in inducing the yield/quality phenotype. The effective segments are subdivided into 50-60 polynucleotide fragments, prioritized by most homology, and reevaluated using topically applied polynucleotides. The effective 50-60 polynucleotide fragments are subdivided into 19-30 polynucleotide fragments, prioritized by most homology, and again evaluated for induction of the yield/quality phenotype.

Once relative effectiveness is determined, the fragments may be utilized singly, or in combination with one or more other fragments to determine the trigger composition or mixture of trigger polynucleotides for providing the yield/quality phenotype.

Methods of making polynucleotides are well known in the art. Chemical synthesis, in vivo synthesis and in vitro synthesis methods and compositions are known in the art and include various viral elements, microbial cells, modified polymerases, and modified nucleotides. Commercial preparation of oligonucleotides often provides two deoxyribonucleotides on the 3' end of the sense strand. Long polynucleotide molecules can be synthesized from commercially available kits, for example, kits from Applied Biosystems/Ambion (Austin, TX) have DNA ligated on the 5' end in a microbial expression cassette that includes a bacterial T7 polymerase promoter that makes RNA strands that can be assembled into a dsRNA and kits provided by various manufacturers that include T7 RiboMax Express (Promega, Madison, WI), AmpliScribe T7-Flash (Epicentre, Madison, WI), and TranscriptAid T7 High Yield (Fermentas, Glen Burnie, MD). dsRNA molecules can be produced from microbial expression cassettes in bacterial cells (Ongvarrasopone et al. *ScienceAsia* 33:35-39; Yin, *Appl. Microbiol. Biotechnol* 84:323-333, 2009; Liu et al., *BMC Biotechnology* 10:85, 2010) that have regulated or deficient RNase III enzyme activity or the use of various viral vectors to produce sufficient quantities of dsRNA. In the present invention, ACCase gene fragments are inserted into the microbial expression cassettes in a position in which the fragments are express to produce ssRNA or dsRNA useful in the methods described herein to regulate expression on a target ACCase gene. In some embodiments design parameters such as Reynolds score (Reynolds et al. *Nature Biotechnology* 22, 326 - 330 (2004), Tuschl rules (Pei and Tuschl, *Nature Methods* 3(9): 670-676, 2006), i-score (Nucleic Acids Res 35: e123, 2007), i-Score Designer tool and associated algorithms (Nucleic Acids Res 32: 936-948, 2004, *Biochem Biophys Res Commun* 316: 1050-1058, 2004, Nucleic Acids Res 32: 893-901, 2004, *Cell Cycle* 3: 790-5, 2004, *Nat Biotechnol* 23: 995-1001, 2005, Nucleic Acids Res 35: e27, 2007, *BMC Bioinformatics* 7: 520, 2006, Nucleic Acids Res 35: e123, 2007, *Nat Biotechnol* 22: 326-330, 2004) are known in the art and may be used in selecting polynucleotide sequences effective in gene silencing. In some embodiments the sequence of a polynucleotide is screened against the genomic DNA of the intended plant to minimize unintentional silencing of other genes.

The trigger polynucleotide and oligonucleotide molecule polynucleotide compositions are useful in compositions, such as liquids that comprise these of polynucleotide molecules, at low concentrations, alone or in combination with other components, for example one or more herbicide molecules, either in the same solution or in separately applied liquids that also provide a transfer agent. While there is no upper limit on the concentrations and dosages of polynucleotide molecules that can be useful in the methods of this invention, lower effective concentrations and dosages will generally be sought for efficiency. The concentrations can be adjusted in consideration of the volume of spray or treatment applied to plant leaves or other plant part surfaces, such as flower petals, stems, tubers, fruit, anthers, pollen, or seed. In one embodiment, a useful treatment for herbaceous plants using 25-mer oligonucleotide molecules is about 1 nanomole (nmol) of oligonucleotide molecules per plant, for example, from about 0.05 to 1 nmol per plant. Other embodiments for herbaceous plants include useful ranges of about 0.05 to about 100 nmol, or about 0.1 to about 20 nmol, or about 1 nmol to about 10 nmol of polynucleotides per plant. Very large plants, trees, or vines may require correspondingly larger amounts of polynucleotides. When using long dsRNA molecules that can be processed into multiple oligonucleotides, lower concentrations can be used. To illustrate embodiments of the invention, the factor 1X, when applied to oligonucleotide molecules is arbitrarily used to denote a treatment of 0.8 nmol of polynucleotide molecule per plant; 10X, 8 nmol of polynucleotide molecule per plant; and 100X, 80 nmol of polynucleotide molecule per plant.

The polynucleotide compositions of this invention are useful in compositions, such as liquids that comprise polynucleotide molecules, alone or in combination with other components either in the same liquid or in separately applied liquids that provide a transfer agent. As used herein, a transfer agent is an agent that, when combined with a polynucleotide in a composition that is topically applied to a target plant surface, enables the polynucleotide to enter a plant cell. In certain embodiments, a transfer agent is an agent that conditions the surface of plant tissue, e. g., leaves, stems, roots, flowers, or fruits, to permeation by the polynucleotide molecules into plant cells. The transfer of polynucleotides into plant cells can be facilitated by the prior or contemporaneous application of a polynucleotide-transferring agent to the plant tissue. In some embodiments the transferring agent is applied subsequent to the application of the polynucleotide composition. The polynucleotide transfer agent enables a pathway for polynucleotides through cuticle wax barriers, stomata and/or cell wall or membrane barriers into

plant cells. Suitable transfer agents to facilitate transfer of the polynucleotide into a plant cell include agents that increase permeability of the exterior of the plant or that increase permeability of plant cells to oligonucleotides or polynucleotides. Such agents to facilitate transfer of the composition into a plant cell include a chemical agent, or a physical agent, or combinations thereof. Chemical agents for conditioning or transfer include (a) surfactants, (b) an organic solvent or an aqueous solution or aqueous mixtures of organic solvents, (c) oxidizing agents, (d) acids, (e) bases, (f) oils, (g) enzymes, or combinations thereof. Embodiments of the method can optionally include an incubation step, a neutralization step (e.g., to neutralize an acid, base, or oxidizing agent, or to inactivate an enzyme), a rinsing step, or combinations thereof.

Embodiments of agents or treatments for conditioning of a plant to permeation by polynucleotides include emulsions, reverse emulsions, liposomes, and other micellar-like compositions. Embodiments of agents or treatments for conditioning of a plant to permeation by polynucleotides include counter-ions or other molecules that are known to associate with nucleic acid molecules, *e. g.*, inorganic ammonium ions, alkyl ammonium ions, lithium ions, polyamines such as spermine, spermidine, or putrescine, and other cations. Organic solvents useful in conditioning a plant to permeation by polynucleotides include DMSO, DMF, pyridine, *N*-pyrrolidine, hexamethylphosphoramide, acetonitrile, dioxane, polypropylene glycol, other solvents miscible with water or that will dissolve phosphonucleotides in non-aqueous systems (such as is used in synthetic reactions). Naturally derived or synthetic oils with or without surfactants or emulsifiers can be used, *e. g.*, plant-sourced oils, crop oils (such as those listed in the 9th Compendium of Herbicide Adjuvants, publicly available on the worldwide web (internet) at herbicide.adjuvants.com can be used, *e. g.*, paraffinic oils, polyol fatty acid esters, or oils with short-chain molecules modified with amides or polyamines such as polyethyleneimine or *N*-pyrrolidine. Transfer agents include, but are not limited to, organosilicone preparations.

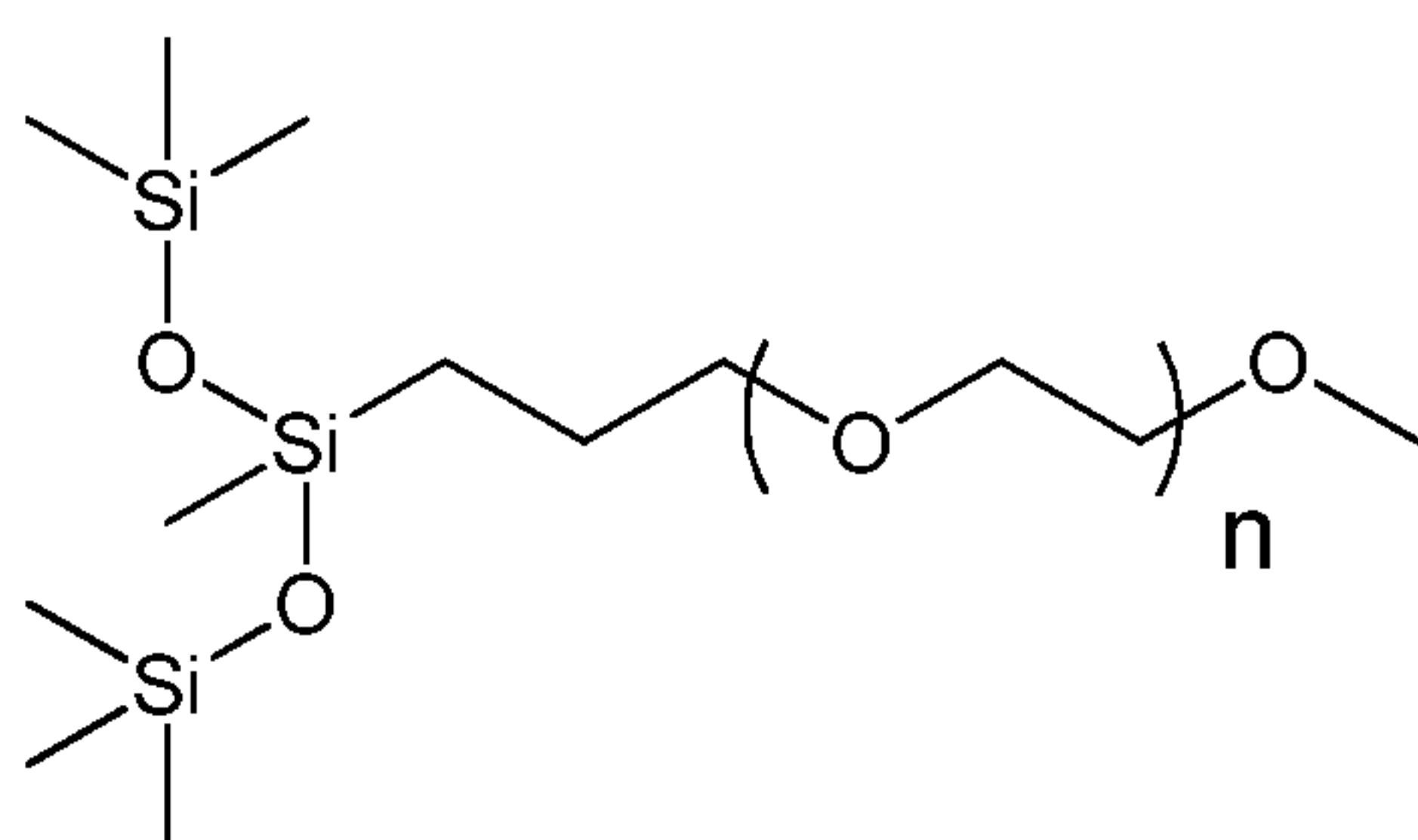
In certain embodiments, an organosilicone preparation that is commercially available as Silwet® L-77 surfactant having CAS Number 27306-78-1 and EPA Number: CAL.REG.NO. 5905-50073-AA, and currently available from Momentive Performance Materials, Albany, New York can be used to prepare a polynucleotide composition. In certain embodiments where a Silwet L-77 organosilicone preparation is used as a pre-spray treatment of plant leaves or other plant surfaces, freshly made concentrations in the range of about 0.015 to about 2 percent by weight (wt percent) (*e. g.*, about 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.04, 0.045, 0.05, 0.055,

0.06, 0.065, 0.07, 0.075, 0.08, 0.085, 0.09, 0.095, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.5 wt percent) are efficacious in preparing a leaf or other plant surface for transfer of polynucleotide molecules into plant cells from a topical application on the surface. In certain embodiments of the methods and compositions provided herein, a composition that comprises a polynucleotide molecule and an organosilicone preparation comprising Silwet L-77 in the range of about 0.015 to about 2 percent by weight (wt percent) (*e. g.*, about 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.04, 0.045, 0.05, 0.055, 0.06, 0.065, 0.07, 0.075, 0.08, 0.085, 0.09, 0.095, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.5 wt percent) is used or provided.

In certain embodiments, any of the commercially available organosilicone preparations provided such as the following Breakthru S 321, Breakthru S 200 Cat# 67674-67-3, Breakthru OE 441 Cat#68937-55-3, Breakthru S 278 Cat #27306-78-1, Breakthru S 243, Breakthru S 233 Cat#134180-76-0, available from manufacturer Evonik Goldschmidt (Germany), Silwet® HS 429, Silwet® HS 312, Silwet® HS 508, Silwet® HS 604 (Momentive Performance Materials, Albany, New York) can be used as transfer agents in a polynucleotide composition. In certain embodiments where an organosilicone preparation is used as a pre-spray treatment of plant leaves or other surfaces, freshly made concentrations in the range of about 0.015 to about 2 percent by weight (wt percent) (*e. g.*, about 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.04, 0.045, 0.05, 0.055, 0.06, 0.065, 0.07, 0.075, 0.08, 0.085, 0.09, 0.095, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.5 wt percent) are efficacious in preparing a leaf or other plant surface for transfer of polynucleotide molecules into plant cells from a topical application on the surface. In certain embodiments of the methods and compositions provided herein, a composition that comprises a polynucleotide molecule and an organosilicone preparation in the range of about 0.015 to about 2 percent by weight (wt percent) (*e. g.*, about 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.04, 0.045, 0.05, 0.055, 0.06, 0.065, 0.07, 0.075, 0.08, 0.085, 0.09, 0.095, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.5 wt percent) is used or provided.

Organosilicone preparations used in the methods and compositions provided herein can comprise one or more effective organosilicone compounds. As used herein, the phrase “effective organosilicone compound” is used to describe any organosilicone compound that is found in an organosilicone preparation that enables a polynucleotide to enter a plant cell. In certain

embodiments, an effective organosilicone compound can enable a polynucleotide to enter a plant cell in a manner permitting a polynucleotide mediated suppression of a target gene expression in the plant cell. In general, effective organosilicone compounds include, but are not limited to, compounds that can comprise: i) a trisiloxane head group that is covalently linked to, ii) an alkyl linker including, but not limited to, an n-propyl linker, that is covalently linked to, iii) a poly glycol chain, that is covalently linked to, iv) a terminal group. Trisiloxane head groups of such effective organosilicone compounds include, but are not limited to, heptamethyltrisiloxane. Alkyl linkers can include, but are not limited to, an n-propyl linker. Poly glycol chains include, but are not limited to, polyethylene glycol or polypropylene glycol. Poly glycol chains can comprise a mixture that provides an average chain length “n” of about “7.5”. In certain embodiments, the average chain length “n” can vary from about 5 to about 14. Terminal groups can include, but are not limited to, alkyl groups such as a methyl group. Effective organosilicone compounds are believed to include, but are not limited to, trisiloxane ethoxylate surfactants or polyalkylene oxide modified heptamethyl trisiloxane.



(Compound I: polyalkyleneoxide heptamethyltrisiloxane, average n=7.5).

In certain embodiments, an organosilicone preparation that comprises an organosilicone compound comprising a trisiloxane head group is used in the methods and compositions provided herein. In certain embodiments, an organosilicone preparation that comprises an organosilicone compound comprising a heptamethyltrisiloxane head group is used in the methods and compositions provided herein. In certain embodiments, an organosilicone composition that comprises Compound I is used in the methods and compositions provided herein. In certain embodiments, an organosilicone composition that comprises Compound I is used in the methods and compositions provided herein. In certain embodiments of the methods and compositions provided herein, a composition that comprises a polynucleotide molecule and

one or more effective organosilicone compound in the range of about 0.015 to about 2 percent by weight (wt percent) (*e. g.*, about 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.04, 0.045, 0.05, 0.055, 0.06, 0.065, 0.07, 0.075, 0.08, 0.085, 0.09, 0.095, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.5 wt percent) is used or provided.

Compositions include but are not limited components that are one or more polynucleotides essentially identical to, or essentially complementary to an ACCase gene sequence (promoter, intron, exon, 5' untranslated region, 3' untranslated region), a transfer agent that provides for the polynucleotide to enter a plant cell, a herbicide that complements the action of the polynucleotide, one or more additional herbicides that further enhance the herbicide activity of the composition or provide an additional mode of action different from the complementing herbicide, various salts and stabilizing agents that enhance the utility of the composition as an admixture of the components of the composition.

Methods include one or more applications of a polynucleotide composition and one or more applications of a permeability-enhancing agent for conditioning of a plant to permeation by polynucleotides. When the agent for conditioning to permeation is an organosilicone composition or compound contained therein, embodiments of the polynucleotide molecules are double-stranded RNA oligonucleotides, single-stranded RNA oligonucleotides, double-stranded RNA polynucleotides, single-stranded RNA polynucleotides, double-stranded DNA oligonucleotides, single-stranded DNA oligonucleotides, double-stranded DNA polynucleotides, single-stranded DNA polynucleotides, chemically modified RNA or DNA oligonucleotides or polynucleotides or mixtures thereof.

Compositions and methods are useful for modulating the expression of an endogenous ACCase gene (for example, US Pat. No. 7,297,541, U.S. Patent Publ. 20110185444, and 20110185445) or transgenic ACCase gene (for example, U.S. Patent No: 7,3072,379, U.S. Patent Publ. 20110191897) or ACCase inhibitor inactivating genes (US Pat. No. 6,268,549; 6,768,044; 7,3072,379; 7,304,209; WO 96/38567, WO 99/24585) in a plant cell. In various embodiments, an ACCase gene includes coding (protein-coding or translatable) sequence, non-coding (non-translatable) sequence, or both coding and non-coding sequence. Compositions of the invention can include polynucleotides and oligonucleotides designed to target multiple genes, or multiple segments of one or more genes. The target gene can include multiple consecutive segments of a

target gene, multiple non-consecutive segments of a target gene, multiple alleles of a target gene, or multiple target genes from one or more species.

An aspect of the invention provides a method for modulating expression of an ACCase gene in a plant including (a) conditioning of a plant to permeation by polynucleotides and (b) treatment of the plant with the polynucleotide molecules, wherein the polynucleotide molecules include at least one segment of 18 or more contiguous nucleotides cloned from or otherwise identified from the target ACCase gene in either anti-sense or sense orientation, whereby the polynucleotide molecules permeate the interior of the plant and induce modulation of the target gene. The conditioning and polynucleotide application can be performed separately or in a single step. When the conditioning and polynucleotide application are performed in separate steps, the conditioning can precede or can follow the polynucleotide application within minutes, hours, or days. In some embodiments more than one conditioning step or more than one polynucleotide molecule application can be performed on the same plant. In embodiments of the method, the segment can be cloned or identified from (a) coding (protein-encoding), (b) non-coding (promoter and other gene related molecules), or (c) both coding and non-coding parts of the target gene. Non-coding parts include DNA, such as promoter regions or the RNA transcribed by the DNA that provide RNA regulatory molecules, including but not limited to: introns, 5' or 3' untranslated regions, and microRNAs (miRNA), *trans*-acting siRNAs, natural anti-sense siRNAs, and other small RNAs with regulatory function or RNAs having structural or enzymatic function including but not limited to: ribozymes, ribosomal RNAs, t-RNAs, aptamers, and riboswitches.

All publications, patents and patent applications are herein incorporated by reference to the same extent as if each individual publication or patent application was specifically and individually indicated to be incorporated by reference.

The following examples are included to demonstrate examples of certain preferred embodiments of the invention. It should be appreciated by those of skill in the art that the techniques disclosed in the examples that follow represent approaches the inventors have found function well in the practice of the invention, and thus can be considered to constitute examples of preferred modes for its practice. However, those of skill in the art should, in light of the present disclosure, appreciate that many changes can be made in the specific embodiments that

are disclosed and still obtain a like or similar result without departing from the spirit and scope of the invention.

EXAMPLES

Example 1. Polynucleotides related to the ACCase gene sequences.

The target ACCase polynucleotide molecule naturally occurs in the genome of *Amaranthus palmeri*, *Amaranthus rudis*, *Amaranthus chlorostachys*, *Amaranthus thunbergii*, *Amaranthus graecizans*, *Amaranthus hybridus*, *Amaranthus lividus*, *Amaranthus spinosus*, , *Abutilon theophrasti*, *Ambrosia trifida*, *Commelina diffusa*, *Conyza candensis*, *Lolium multiflorum*, *Sorghum halepense*, *Xanthium strumarium*, *Euphorbia heterophylla*, *Kochia scoparia* and *Digitaria sanguinalis* and include molecules related to the expression of a polypeptide identified as an ACCase, that include regulatory molecules, cDNAs comprising coding and noncoding regions of an ACCase gene and fragments thereof as shown in Table 1.

Polynucleotide molecules were extracted from these plant species by methods standard in the field, for example, total RNA is extracted using Trizol Reagent (Invitrogen Corp, Carlsbad, CA Cat. No. 15596-018), following the manufacturer's protocol or modifications thereof by those skilled in the art of polynucleotide extraction that may enhance recover or purity of the extracted RNA. Briefly, start with 1 gram of ground plant tissue for extraction. Prealiquot 10 milliliters (mL) Trizol reagent to 15 mL conical tubes. Add ground powder to tubes and shake to homogenize. Incubate the homogenized samples for 5 minutes (min) at room temperature (RT) and then add 3 mL of chloroform. Shakes tubes vigorously by hand for 15-30 seconds(sec) and incubate at RT for 3 min. Centrifuge the tubes at 7,000 revolutions per minute (rpm) for 10 min at 4 degrees C. Transfer the aqueous phase to a new 1.5 mL tube and add 1 volume of cold isopropanol. Incubate the samples for 20-30 min at RT and centrifuge at 10,000 rpm for 10 min at 4 degrees C. Wash pellet with Sigma-grade 80 percent ethanol. Remove the supernatant and briefly air-dry the pellet. Dissolve the RNA pellet in approximately 200 microliters of DEPC treated water. Heat briefly at 65 degrees C to dissolve pellet and vortex or pipet to resuspend RNA pellet. Adjust RNA concentration to 1-2 microgram/microliter.

DNA was extracted using EZNA SP Plant DNA Mini kit (Omega Biotek, Norcross GA, Cat#D5511) and Lysing Matrix E tubes (Q-Biogen, Cat#6914), following the manufacturer's

protocol or modifications thereof by those skilled in the art of polynucleotide extraction that may enhance recover or purity of the extracted DNA. Briefly, aliquot ground tissue to a Lysing Matrix E tube on dry ice, add 800µl Buffer SP1 to each sample, homogenize in a bead beater for 35-45sec, incubate on ice for 45-60 sec, centrifuge at ≥ 14000 rpm for 1min at RT, add 10 microliter RNase A to the lysate, incubate at 65°C for 10min, centrifuge for 1min at RT, add 280µl Buffer SP2 and vortex to mix, incubate the samples on ice for 5min, centrifuge at $\geq 10,000g$ for 10min at RT, transfer the supernatant to a homogenizer column in a 2ml collection tube, centrifuge at 10,000g for 2min at RT, transfer the cleared lysate into a 1.5ml microfuge tube, add 1.5 volumes Buffer SP3 to the cleared lysate, vortex immediately to obtain a homogeneous mixture, transfer up to 650µl supernatant to the Hi-Bind column, centrifuge at 10,000g for 1min, repeat, apply 100µl 65°C Elution Buffer to the column, centrifuge at 10,000g for 5min at RT.

Next-generation DNA sequencers, such as the 454-FLX (Roche, Branford, CT), the SOLiD (Applied Biosystems,), and the Genome Analyzer (HiSeq2000, Illumina, San Diego, CA) were used to provide polynucleotide sequence from the DNA and RNA extracted from the plant tissues. Raw sequence data is assembled into contigs. The contig sequence is used to identify trigger molecules that can be applied to the plant to enable regulation of the gene expression. The target DNA sequence isolated from genomic (gDNA) and coding DNA (cDNA) from the various weedy plant species for the ACCase gene and the assembled contigs as set forth in SEQ ID NOs 1-93 and Table 1.

Example 2. Polynucleotides of the invention related to the trigger molecules

The gene sequences and fragments of Table 1 were divided into 200 polynucleotide (200-mer) lengths with 25 polynucleotide overlapping regions (SEQ ID NO:93-3900). These polynucleotides are tested to select the most efficacious trigger regions across the length of any target sequence. The trigger polynucleotides are constructed as sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA, or dsDNA/RNA hybrids and combined with an organosilicone based transfer agent to provide a polynucleotide preparation. The polynucleotides are combined into sets of two to three polynucleotides per set, using 4-8 nmol of each polynucleotide. Each polynucleotide set is prepared with the transfer agent and applied to a plant or a field of plants in combination with a ACCase inhibitor containing herbicide, or followed by a ACCase inhibitor

treatment one to three days after the polynucleotide application, to determine the effect on the plant's susceptibility to an ACCase inhibitor. The effect is measured as stunting the growth and/or killing of the plant and is measured 8-14 days after treatment with the polynucleotide set and ACCase inhibitor. The most efficacious sets are identified and the individual polynucleotides are tested in the same methods as the sets are and the most efficacious single 200-mer identified. The 200-mer sequence is divided into smaller sequences of 50-70-mer regions with 10-15 polynucleotide overlapping regions and the polynucleotides tested individually. The most efficacious 50-70-mer is further divided into smaller sequences of 25-mer regions with a 12 to 13 polynucleotide overlapping region and tested for efficacy in combination with ACCase inhibitor treatment. By this method it is possible to identify an oligonucleotide or several oligonucleotides that are the most efficacious trigger molecule to effect plant sensitivity to an ACCase inhibitor or modulation of an ACCase gene expression. The modulation of ACCase gene expression is determined by the detection of ACCase siRNA molecules specific to an ACCase gene or by an observation of a reduction in the amount of ACCase RNA transcript produced relative to an untreated plant or by merely observing the anticipated phenotype of the application of the trigger with the ACCase inhibitor containing herbicide. Detection of siRNA can be accomplished, for example, using kits such as mirVana (Ambion, Austin TX) and mirPremier (Sigma-Aldrich, St Louis, MO).

The target DNA sequence isolated from genomic (gDNA) and coding DNA (cDNA) from the various weedy plant species for the ACCase gene and the assembled contigs as set forth in SEQ ID NOs 1-92 were divided into polynucleotide fragments as set forth in SEQ ID NOs 93-3900.

The gene sequences and fragments of Table 1 were compared and 21-mers of contiguous polynucleotides were identified that have homology across the various ACCase gene sequences. The purpose was to identify trigger molecules that are useful as herbicidal molecules or in combination with an ACCase inhibitor herbicide across a broad range of weed species. The sequences, SEQ ID NO:3901-4530 represent the 21-mers that are present in the ACCase gene of at least eight of the weed species of Table 1. It is contemplated that additional 21-mers can be selected from the sequences of Table 1 that are specific for a single weed species or a few weeds species within a genus or trigger molecules that are at least 18 contiguous nucleotides, at least 19 contiguous nucleotides, at least 20 contiguous nucleotides or at least 21 contiguous nucleotides

in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92 or fragment thereof.

By this method it is possible to identify an oligonucleotide or several oligonucleotides that are the most efficacious trigger molecule to effect plant sensitivity to ACCase inhibitor or modulation of ACCase gene expression. The modulation of ACCase gene expression is determined by the detection of ACCase siRNA molecules specific to ACCase gene or by an observation of a reduction in the amount of ACCase RNA transcript produced relative to an untreated plant or by merely observing the anticipated phenotype of the application of the trigger with the ACCase inhibitor containing herbicide. Detection of siRNA can be accomplished, for example, using kits such as mirVana (Ambion, Austin TX) and mirPremier (Sigma-Aldrich, St Louis, MO).

The target DNA sequence isolated from genomic (gDNA) and coding DNA (cDNA) from the various weedy plant species for the ACCase gene and the assembled contigs as set forth in SEQ ID NOs 1-92 were divided into fragments as set forth in SEQ ID NOs 3901-4530.

Example 3. Methods used in the invention related to treating plants or plant parts with a topical mixture of the trigger molecules.

Glyphosate-sensitive Palmer amaranth (*A. palmeri* R-22) plants were grown in the greenhouse (30 / 20 C day/night T; 14 hour photoperiod) in 4 inch square pots containing Sun Gro® Redi-Earth and 3.5 kg/cubic meter Osmocote® 14-14-14 fertilizer. Palmer amaranth plants at 5 to 10 cm in height were treated with a pool of eight 8 short (21-22mer) single-strand antisense oligo DNA polynucleotides (ssDNA) targeting ACCase shown in Table 2 at 16 nmol, formulated in 10 millimolar sodium phosphate buffer (pH 6.8) containing 2% ammonium sulfate and 0.5% Silwet L-77. Plants were treated manually by pipetting 10 µL of polynucleotide solution on four fully expanded mature leaves, for a total of 40 microliters of solution per plant. Twenty-four and forty-eight hours later, the plants were treated with clethodim (SelectMax®, 0.97 lb ai per gallon; ACCase inhibitor) at 272 g ai/ha, crop oil concentrate (COC) at 1% was added to the herbicide treatments. Four replications of each treatment were conducted. Plant height was determined just before ssDNA treatment and at intervals up to twelve days after herbicide treatments to determine effect of the oligonucleotide and herbicide treatments.

Table 2. ssDNA ACCase oligonucleotides

OLIGO1	SEQ ID NO: 4531	gtcttacaagggtttctcaa
OLIGO2	SEQ ID NO: 4532	ATCTATGTTACCTCCCTGTG
OLIGO3	SEQ ID NO: 4533	ATAAACCATTAGCTTTCCcGG
OLIGO4	SEQ ID NO: 4534	TTtATtGgAaCAaGCGgAgTT
OLIGO5	SEQ ID NO: 4535	TATAGCACCACTTCCCGATAG
OLIGO6	SEQ ID NO: 4536	GCACCACGAGGATCACAAGAA
OLIGO7	SEQ ID NO: 4537	CCACCCGAGAAACCTCTCCAA
OLIGO8	SEQ ID NO: 4538	CAGTCTTGaCGAGTGATTCTT

The results of the treatments are shown in Figure 1 and demonstrated that plants treated with 16 nmol and the clethodim herbicide caused 22 percent reduction in plant height relative to the untreated control and clethodim alone caused 0 percent reduction in plant height. Surprising result since dicot plants are not normally sensitive to ACCase inhibitor herbicides.

An additional test was conducted to determine which of the ACCase oligonucleotides was responsible for the result. In this test, each oligonucleotide was applied to four plants at 4 nmol (nanomole) per plant, the herbicide was applied 24 hours after the oligonucleotide treatment and the plants were rated for growth effects. This followup test identified that formulated oligo6 (SEQ ID NO:4536) had the largest effect and was able to reduce the plant growth by an average of 40 percent relative to untreated plants. This result provides an opportunity to broaden the spectrum of use for ACCase inhibitor herbicides to include dicot weeds.

Example 4. A method to control weeds in a field.

A method to control weeds in a field comprises the use of trigger polynucleotides that can modulate the expression of an ACCase gene in one or more target weed plant species. An analysis of ACCase gene sequences from seventeen plant species provided a collection of 21-mer polynucleotides that can be used in compositions to affect the growth or develop or sensitivity to ACCase inhibitor herbicide to control multiple weed species in a field. A composition containing 1 or 2 or 3 or 4 or more of the polynucleotides of SEQ ID NO: 3901-4530 would enable broad activity of the composition against the multiple weed species that occur in a field environment.

The method includes creating a composition that comprises components that include at least one polynucleotide of SEQ ID NO: 3901-4530 or any other effective gene expression modulating polynucleotide essentially identical or essentially complementary to SEQ ID NO: 1-92 or fragment thereof, a transfer agent that mobilizes the polynucleotide into a plant cell and a ACCase inhibiting herbicide and optionally a polynucleotide that modulates the expression of an essential gene and optionally a herbicide that has a different mode of action relative to an ACCase inhibitor. The polynucleotide of the composition includes a dsRNA, ssDNA or dsDNA or a combination thereof. A composition containing a polynucleotide can have a use rate of about 1 to 30 grams or more per acre depending on the size of the polynucleotide and the number of polynucleotides in the composition. The composition may include one or more additional herbicides as needed to provide effective multi-species weed control. A field of crop plants in need of weed plant control is treated by spray application of the composition. The composition can be provided as a tank mix, a sequential treatment of components (generally the polynucleotide followed by the herbicide), a simultaneous treatment or mixing of one or more of the components of the composition from separate containers. Treatment of the field can occur as often as needed to provide weed control and the components of the composition can be adjusted to target specific weed species or weed families.

Table 1. ACCase gene sequences isolated from weedy plant species

SEQ ID NO	SPECIES	TYPE	LENGTH	SEQ
1	Abutilon theophrasti	cDNA Contig	1036	TTGCTGTAAGTCTTGCCTGCAGTAAGAACTGCCTTTA ATTTATTTGGCTGCGAACTCTGGTGCTCGTATTGGGGTAGC TGAAGAAGTCAAAGCCTGCTTTAAAGTTGGTTGGTCTGAT GAATCCAGCCCTGAGCGTGGTTTTTCAGTACATTTACATAAC TCCTGAGGATTATACTAGGATTGGATCATCGGTCATTGCAC ATGAGATGAAGCTGGCCAGTGGAGAGAGCAGATGGGTGA TAGATACTATTGTTGGGAAGGAGGATGGTTTGGGGGATC GAGAACTTAACAGGTAGTGGAGCCATTGCTGGTGCATACT CTCGGGCATACAAAGAAACCTTTACCCTAACGTATGTGACT GGTAGAACTGTGGGAATTGGTGCTTATCTTGCTCGTCTTGG CATGCGGTGTATACAAAGACTCGATCAACCCATTATTTTGA CTGGTTTCTCAGCATTGAACAACTTCTAGGTCGTGAGGTG TATAGCTCCACATGCAACTTGGTGGACCTAAAATCATGGC AACAAATGGGGTGGTTCATCTACCGTCTCAGATGATCTTG AAGGGGTGTCAGCTATTTTGAAGTGGATAAGTTGCATACC TCCTCATATTGGTGGTCCACTTCCCATTTTAAACCCATCAGA

				TCCTCCAGAAAGGCCTGTGGAGTACATCCCGGAAAATTCA TGTGATCCTCGTGCCGCTATTTGTGGTGCTTTAGATAGTAA TGGCAAGTGGAAGGGCGGTATTTTTGACAGGGATAGCTTT GTGGAGACGCTCGAAGGTTGGGCTAGAACAGTTGTCACA GGAAGGGCAAAGCTTGGAGGAATTCCTGCAGGAATAGTT GCAGTTGAGACACAGACGGTGATGCAGGTTATCCCTGCCG ATCCAGGACAACTTGATTCCCATGAAAGAGTTGTCCCTCAA GCTGGACAGGTATGGTTTCCGGATTCTGCTACAAAGACAG CTCAGGCAATAATGGATTTCAACAGGGAAGAGCTTCCACT TTTCATTCTTGCCAATTGGAGAGGCT
2	Amaranthus graecizans	cDNA Contig	1479	ACCACGAGAAGATGCTTTCTTCCTTGCGGTTACAAATCTTG CTTGTGCGAAGAACTTCCTCTTATTTATCTGGCTGCAAATT CAGGAGCTCGACTTGGTGTTGCCGAAGAGCTAAAATCCTG CTTTAAAGTTGGCTGGTCGGATGAGTCAAACCCCGAGAGT GGATTTCAGTATGTCTTCTTAACCCCGGAAGATTACGATCG TATCGGATCGTCAGTCATAGCCACGAGTTAAACTCGAA AGTGGAGAAAAAAGATGGGTTATAGACACAGTTGTGCGGA AAGGAGGACGGATTAGGTGTCGAGAATCTATCAGGAAGT GGTGCTATAGCCAGTGCATACTCAAGGGCTTACAAGGAAA CATTTACTCTGACTTTTGTAAGTGGTAGAACGGTCGGTATT GGTGCCTATCTTGCTCGCCTTGGGATGCGTTGTATACAGAG GCTTGACCAGCCTATAATTCTCACGGGTTTTTCTGCGTTAA ATAAACTTCTTGGTCGGGAGGTTTACAGTTCACACATGCAA CTTGGTGGACCGAAGATTATGGGCACAAACGGGGTAGTTC ATCTTACAGTTTCCGATGATCTTGAAGGCATTTATCTATCT TGAAGTGGCTGAGCTATGTTCCACCCTATGCAGGTGGTGA ACTCCGATTTCTCGGTGTTTAGACCCTCCAGAAAGACCCG TTGCGTATTTGCCTGAAAATTCTTGTGATCCTCGTGGTGCT ATATCTGGTACAGTTGACTCCACCGGTAAATGGCATGGGG GTATTTTCGACAAGGATAGTTTTGTGGAAACCTTAGAAGG CTGGGCACGAACAGTTGTCACGGGAAGGGCTAAACTTGG AGGAATTCCAGTTGGGATAGTTGCCGTTGAGACGCAGACT GTTATGCAAGTAATCCCAGCAGATCCCGGTCAACTCGACTC ACACGAGAGAGTCGTACCACAAGCAGGGCAAGTATGGTTC CCAGATTCCGCATCCAAGACAGCACAAGCGCTGATGGATT TCAACCGGGAAGAACTACCACTTTTCATTTAGCTAATTGG AGAGGTTTCTCGGGTGGACAAAGGGATCTCTTTGAAGGGA TCCTTCAAGCCGGATCCACCATTTGTCGAAAATCTTAGGACT TATAATCAACCCGTTTTTGTATATACCAATGATGGGGGA GCTTCGAGGAGGCGCATGGGTGGTCGTGGATAGTCGAAT TAATTCCGATCATATAGAAATGTACGCCGACCAAACAGCTA AAGGAAATGTGCTTGAACCCGAAGGAATGATCGAGATTAA GTTCAGAACCAAGGAACTTCTCGAGTGTATGGGAAGGCTT GATCAACAACCTCATCGGTCTCAAGGAAAACTAGCAGAAG CCAAGAGCTCTAATTCCTACGATAAAATCGACCCCTGCAG CAACAAATAAAAGCCCGCGAGAAGCAACTATTGCCTCTAT ATACTCAGATAGCCACCAAATTTGC
3	Amaranthus	cDNA	638	AAATATACTCCTTCCCGTGATCGTCAATGGCATCTTTACAC

	graecizans	Contig		GGTTATTGATAAACCACTCATTCGGAGGATGTTTTTGAGAA CCCTTGTAAGACAACCCATCTCTGAGTTCACAGGCGTCGAA CTAAGCGCTCTTGAAACACAAAAGCCCATCTCTTTTACTTCA AGAAGCATCCTAAGGTCCTTAACAACCGCCATGGAGGAGT TGGAACCTCAATGCACATAGTGCTTCATTGAAACCCGATCAC GCTCATATGTACTTGTACATTGTTTCGAGAGCAACAAATATA CGATCTTGTGCCATATCACAGGGAGGTGAACATAGATTAC CAACAAGAAGAGGCTTCGGTTCAATTCTTTTTGGAAGAGC TCGCGCATGAAATCCACAGTCTTGCTGGTGTAAAGGATGCA TAAACTAAATGTTTGTGAGTGGGAAGTGAAACTTCGGATA TCTTCTCCCGGGAAAGCTAATGGTTTATGGAGGGTGGCGG TACTAATGTGACTGGTCAGACCTGTTCCGGTACATGTTTAT CGTGAATTGGAAGATAGCAACCTACATGAAATGGTCTACC ATTCATTATCCGTTACGGTCCCCACCATGGGGTACCTGTG AATGCACCCTATCAACCACTAGGTGGCAT
4	Amaranthus hybridus	cDNA Contig	2174	TGAACATAGATTACCAACAAGAAGAGGCTTCGGTTCAATT CTTTTTGGAAGATCTCGCGCATGAAATCCATAGTCTTGCTG GTGTAAGGATGCATAAACTAAATGTTTGTGAGTGGGAAGT GAAACTTCGGATATCATCTCCCGGGAAAGCTAATGGTTTAT GGAGGGTGGCAGTTACTAATGTGACTGGTCATACCTGTTC GGTACATGTTTATCGTGAATTGGAAGATAGCAACCTACAT GAAATGGTCTACCATTAGTATCTGTTACGGCCCCCACCA TGGGGTACCTGTGAATGCACCCTATCAACCACTCGGTGGC ATCTCCCGTAAGCGACTTCAGGCCATGAAGAGTAGCACAA CATACTGTTACGATTTTCCACTGGCTTTCTCAACTGCCCTGA AGCAATCATGGGCATCGGAAGCTCCGGATGTCAAGAAACC CTCGGACAAAGCACTTTTGAAAGTAACCGAGCTAGCATTT GCTGATCCAAAAGGCACATGGGGAACTCCGCTTGTTCCAA TAAATCGCAAGCCTGGTATGAACGATGTTGGCATGGTAGC CTGGTACTTGGAATGTCCACCCCGAGTTCCTAACGGAA GAACAATAATGGTTGTAGCTAATGATGTTACCTTCAAGGCC GGATCTTTCGGACCACGAGAAGATGCTTTCCTTGCTGT TACAAATCTTGCTTGCGCGAAGAACTTCCTCTTATTATCT GGCTGCCAATTCAGGAGCTCGACTTGGTGTTGCCGAAGAG CTAAAATCCTGCTTTAAAGTTGGCTGGTCGGATGAGTCAA ACCCCGAGAGTGGATTTAGTATGTCTACTTAACCCCTGAA GATTACGATCGTATAGGATCGTCAGTCATAGCCCACGAGT TAAACTCGAAAGTGGAGAAAAAAGATGGGTTATAGACA CCGTTGTCGGTAAGGAGGACGGATTAGGTGTCGAGAATCT ATCAGGAAGTGGTGCTATAGCCAGTGCATACTCAAGGGCT TACAAGGAAACATTTACTCTGACTTTTGTAAACCGGTAGAAC GGTCGGTATTGGTGCCTATCTTGCTCGTCTTGGGATGCGTT GTATACAGAGGCTTGACCAGCCTATAATTCTCACGGGTTTT TCTGCGTTAAATAAACTTCTCGGTCGGGAGGTTTACAGTTC ACACATGCAACTTGGTGGACCGAAGATAATGGGCACAAAC GGGGTAGTTCATCTTACAGTTTCCGATGATCTTGAAGGCAT TTCATCTATCTTGAAGTGGCTGAGCTATGTTCCACCCTATTC AGGTGGTGAACCTCCGATTTCTCGGTGTTTAGACCCTCCCG

				AAAGACCGGTTGCGTATTTGCCTGAAAATTGTTGTGATCCT CGTGGGGCTATATCTGGTACGGTTGACTCCGCCGGTAAAT GGTTTGGGGGTATTTTCGACAAGGATAGTTTTGTGGAAAC CTTAGAAGGATGGGCACGAACAGTTGTCACGGGAAGGGC TAAACTCGGAGGAATTCCAGTTGGCATAGTTGCTGTTGAG ACACAGACTGTTATGCAAGTAATCCCAGCAGATCCCGGTC AACTCGACTCACATGAGAGAGTCGTACCACAAGCAGGGCA AGTATGGTTCCCAGATTCCGCATCCAAGACAGCACAAGCG CTGATGGATTTCAACCGGGAAGAACTCCCACTTTTCATTTT AGCTAATTGGAGAGGTTTCTCGGGTGGACAAAGGGATCTC TTTGAAGGGATCCTTCAGGCTGGATCCACCATAGTCGAAA ATCTTAGGACTTATAATCAACCCGTTTTTGTATATCCCTA TGATGGGGGAGCTTCGAGGAGGCGCATGGGTGGTCGTCG ATAGTCGAATTAATTCCGACCATATAGAAATGTACGCCGAC CAAACAGCTAAAGGAAATGTGCTTGAACCGGAAGGAATG ATCGAGATTAAGTTCCGAACCAAGGAACTTCTCGAGTGTAT GGGAAGGCTTGACCAACAACCTCATCGGTCTCAAGGAAAAA CTAGCCGAAGCCAAGAGCTCTAATTCCTACGATAAAATCG AGCCCCTGCAGCAACAAATAAAAGCCCGCGAGAAGCAACT ATTGCCTCTTTATACTCAGATAGCCACCAAATTTGCCGAGT TGCATGATACGTCTTTAAGGATGGCTGCCAAA
5	Amaranthus hybridus	cDNA Contig	530	CACTCGTCAAGACTGTTTCGAGATGCTGCAGGTGAACGGTT GACCCATAAGTCGGCTTTGGAGTTGATCCGGAAATGGTTC AATGAGTCAGATATTTCCGGAGAGGCTTCCGATGCTTGGG CTGATGATGCGACCTTCTTTAAGTGGAAGGACAATACCGC TAACTACGAGGAGAAGTTGAAAGAGTTGCGGGTTCAGAA GGTATTGGATCAGCTGTCGAATATTGGAGATTCGGTAACT AATTTGAGGGCTCTGCCTCAGGGTCTTGCTGCCCTACTTCA AAAGGTGGATCCATCGAGTCGAGAAGAACTAGTCGAGGA ACTCCGAAAAGTGCTCACTTGATTTTCGCAACCGTTGATGGT GAAGTGAAACCTTCTTGGTTTCATCATGGTAGAAAATATTA TTAGGCAAATCTATAATTTTATGTGACATCAATTGTTTTAGA CAATAGTATTGAACTAATTTATTTAATTAAATTGTATAAATA GGAGACCTTGAATTCATTTGAATTAAGTGGCTTATGCTTGC ATTA
6	Amaranthus hybridus	cDNA Contig	527	TATAGATGAAGTAGTACAGAGTTTGCTGGAATGCCTTGAT AGTCCCGAACTTCCATTCCTTCAATGGCAAGAATGCTTGTC TGTGCTGGCAACACGACTTCCCAAAGATCTGAGATACGAA TTGGAATCAAAATCTAGAGCTTTTGAAGGGATTACCAACAC CCAGAACGTAGAATTTCTGCTAAGTTGTTGAAAAGCATTC TTGAGGACCATTTAACTCATGCCACGAGAAAGATAAAGG AGCTCAAGAGAGGCTTATTGAGCCTCTTATGGCTCTTGTA AGTCTTACGAAGGTGGGCGAGAAAGTCATGCTCGTTTTAT TGTTCAATCTTTATTTGAAGAGTATTTATCCGTTGAAGAATT GTTTAGCGACAATCTCCAGGCTGATGTGATTGAACGTCTCC GCCTTCAGTATAAGAAGGATCTGCTGAAGATTGTTGACATT GTACTGTCGCATCAGGGTGTTAAGAATAAAAAATAAGCTGA TTCTACGACTCATGGAACAGCTGGTTTACCCAAATCCCG

7	Amaranthus lividus	cDNA Contig	1310	CGAGAGTGGATTTCAGTATGTCTACTTAACCCCTGAAGATT ACGATCGTATAGGATCGTCAGTCATAGCCCACGAGTTAAA ACTCGAAAGTGGAGAAAAAAGATGGGTTATAGACACCGTT GTCGGTAAGGAGGACGGATTAGGTGTGAGAATCTATCA GGAAGTGGTGCTATAGCCAGTGCATACTCAAGGGCTTACA AGGAAACATTTACTCTGACTTTTGTAACCGGTAGAACGGTC GGTATTGGTGCCTATCTTGCTCGTCTTGGGATGCGTTGTAT ACAGAGGCTTGACCAGCCTATAATTCTCACGGGTTTTTCTG CGTTAAATAAACTTCTCGGTGCGGAGGTTTACAGTTCACAC ATGCAACTTGGTGGACCGAAGATAATGGGCACAAACGGG GTAGTTCATCTTACAGTTTCCGATGATCTTGAAGGCATTTTC ATCTATCTTGAAGTGGCTGAGCTATGTTCCACCCTATTCAG GTGGTGAACCTCCGATTTCTCGGTGTTTAGACCCTCCCGAA AGACCGGTTGCGTATTTGCCTGAAAATTGTTGTGATCCTCG TGGGGCTATATCTGGTACGGTTGACTCCTCCGGTAAATGG TTTGGGGGTATTTTCGACAAGGATAGTTTTGTGGAAACCTT AGAAGGATGGGCACGAACAGTTGTCACGGGAAGGGCTAA ACTCGGAGGAATTCCAGTTGGCATAGTTGCTGTTGAGACG CAGACTGTTATGCAAGTAATCCCAGCAGATCCCGGTCAACT CGACTCACATGAGAGAGTCGTACCACAAGCAGGGCAAGTA TGGTTCCCAGATTCCGCATCCAAGACAGCACAAAGCGCTGA TGGATTTCAACCGGGAAGAACTCCCACTTTTCATTTAGCT AATTGGAGAGGTTTCTCGGGTGGACAAAGGGATCTCTTTG AAGGGATCCTTCAGGCTGGATCCACCATAGTCGAAAATCTT AGGACTTATAATCAACCCGTTTTTGTTTATATCCCTATGATG GGGGAGCTTCGAGGAGGCGCATGGGTGGTCGTCGATAGT CGAATTAATTCCGACCATATAGAAATGTACGCCGATCAAAC AGCTAAAGGAAATGTGCTTGAACCGGAAGGAATGATCGA GATTAAGTTCCGAACCAAGGAACCTTCTCGAGTGTATGGGA AGGCTTGACCAACAACTCATCGGTCTCAAGGAAAAACTAG CCGTAGCCAAGAGCTCTAATTCCTACGATAAAATCGAGCCC CTGCAGCAACAAATAAAAGCCCGCGAGAAGCAACTATTGC CTCTTTATACTCAGATAG
8	Amaranthus lividus	cDNA Contig	1309	AAAGCATTCTTGAGGACCATTAAATTCATGCCACGAGAAA GATAAAGGAGCTCAAGAGAGGCTTATTGAGCCTCTTATGG CTCTTGTAAGTCTTACGAAGGTGGGCGAGAAAGTCATGC TCGTTTTATTGTTCAATCTTTATTTGAAGAGTATTTATCCGT TGAAGAATTGTTTAGCGACAATCTCCAGGCTGATGTGATT GAACGTCTCCGTCTTCAGTATAAGAAGGATCTGCTGAAGA TTGTTGACATTGTACTGTCGCATCAGGGTGTTAAGAATAAA ATAAGCTGATTCTACGACTCATGGAACAGCTGGTTTACCCA AATCCCGCTGCATACAGGGGGGAACTTATCCGTTTCTCTCA ATTGAACCATAACAATGTATTCTGAGTTGGCACTAAAGGCCA GTCAATTGCTTGAACAAACGAAATTGAGTGAGCTCCGTTC GAACATTGCTAGAAACCTCTCTGAGCTAGAAATGTTTACCG AGGATGGCGAAAACATGGATACTCCAAAAAGAAAAAGTG CTATTAATGAACGTATGGAGGCGCTTGTGAGTACTCCTCTA GCTGTGCAAGATGCCCTTGTTGGTTTGTTTGATCATAGTGA

				TCATACACTTCAGAGGCGGGTTGTTGAGACCTATGTTCCG AGGCTTTATCAGCCTTATCTTGTCAAGGGAAGTGTCAGGAT GCTGTGGCACAGATCAGGCTTCATAGCTTTATGGGAATTT GTTGAGGAGAATATTGACCGAACAAATTTTTCTGATCTGAC TACAAACAGTGGGAACCATAGTGAGCGAAAGTGGGGGGC CATGGTCGTTATTA AAACTCTTCAGTTCTTGCCATCGGTAAT TGCTGCAGCATTGAGAGAAACAACCTCATAGTTCCGATCAAT CAACTTCCACTGGCTCTATAGAATCAGTCATCCATGGAAAT ATGCTGCACATTGCACTAGTGGGGGTGAATAACCAGATGA GCTTGTTGCAGGATAGTGGTGATGAAGATCAGGCTCAAGA GAGAATCGATAAGTTGGCCAAAATTCTGAGAGAACAAGAA GTGAGTTCAGCCCTTCGTGCTGTTGGTGTGTTGGTGTGATTAG TTGCATCATAACAGAGAGATGAAGGGCGAACTCCGATGAG GCATTCATTCTATTGGTCAGCAGAAAAACAATATTATAGTG AGGAACCTTTACTACGTCATTTGGAACCCCTCTATCTATGT ATCTCGAGCTGGACAAGCTTAAGGGTTATGAAGATATCAA ATATACTCCTTCCCGTGATCGTCAATGGCATCTTTACACGG TTATTGATAAAC
9	Amaranthus lividus	cDNA Contig	638	GGCAGTTACTAATGTGACTGGTCATACCTGTTCCGGTACATG TTTATCGTGAATTGGAAGATAGCAACCTACATGAAATGGTC TACCATT CAGTATCTGTTACGGCCCCCACCATGGGGTACC TGTGAATGCACCCTACCAACCACTCGGTGGCATCTCCCGTA AGCGACTTCAGGCCATGAAGAGTAGCACAACATACTGTTA TGATTTTCCACTGGCTTTCTCAACTGCCCTGAAGCAATCAT GGGCATCGGAAGCTCCGGATGTCAAGAAACCCTCGGACAA AGCACTTTTGAAAGTAACCGAGCTAGCATTGCTGATCCAA AAGGCACATGGGGAACCTCCGCTTGTTCCAATAAATCGCAA GCCTGGTATGAACGATGTTGGCATGGTAGCCTGGTACTTG GAAATGTCCACCCCCGAGTTCCCTAACGGAAGAACAATAA TGGTTGTAGCTAATGATGTTACCTTCAAGGCCGGATCTTTC GGACCACGAGAAGATGCTTTCCTTGCTGTTACAAATCT TGCTTGCGCGAAGAACTTCCTCTTATTATCTGGCTGCCAA TTCAGGAGCTCGACTTGGTGTTGCCGAAGAGCTAAAATCC TGCTTTAAAGTTGGCTGGTCGGATGAGTC
10	Amaranthus palmeri	cDNA Contig	4689	CATAATACATTAAGTCCAGTATCTATACAAGAGATTAAACC AGCTACAAAAAAGCTGATGAGCACAAGATACATCAAACAA AAACCAGCAGCTGATAGCAGTATTTCTTTTTCTTAATGGC AAGAATGCTTGTCTGTGCTGGCAACACGACTCCCCAAAGA TCTGAGATACGAATTGGAATCAAAATCTAGAGCTTTTGAA GCGATTACCAACACCCCAAACATAGAATTTCTGCTAAGTT GTTGAAAAGTATTCTTGAGGACCATTAAACTCATGCCAAG AGAAAGATAAAGGAGCTCAAGAGAGGCTTATTGAGCCTCT TATGGTTCTTGTAAGTCTTACGAAGGTGGGCGAGAAAGT CATGCTCGTTTTATTGTTCAATCTTTATTTGAAGAGTATTTA TCCGTTGAAGAATTGTTTAGCGACAATCTCCAGGCTGATGT GATTGAACGTCTCCGCCTTCAGTATAAGAAGGATCTGCTG AAGATTGTTGACATTGTACTGTCGCATCAGGGTGTTAAGA ATAAAAATAAGCTGATTCTACGACTCATGGAACAGCTGGTT

				TACCCAAATCCCGCTGCATACAGGGGGGCAACTTATCCGTTT CTCTCAATTGAACCATAACAATGTATTCTGAGTTGGCACTAA AGGCCAGTCAATTGCTTGAACAAACGAAATTGAGTGAGCT CCGTTCGAACATTGCTAGAAACCTCTCTGAGCTAGAAATGT TTACCGAGGATGGCGAAAACATGGATACTCCAAAAAGAAA AAGTGCTATTAATGAACGTATGGAGGCCCTTGTGAGTACT CCTCTAGCTGTTGAAGATGCCCTTGTGCGTTTGTGTTGATCA TAGTGATCATACACTTCAGAGGCGGGTTGTTGAGACCTAT GTTGCGGAGGCTTTATCAGCCTTATCTTGTCAAGGGAAGTGT CAGGATGCTGTGGCACAGATCAGGTTTCATAGCTTTATGG GAATTTGTTGAGGAGAATATTGACCGAACAAATTTTCNG ATGATCTGACTACAAACAGTGGGAACCATAGTGAGCGAAA GTGGGGGGGCCATGGTCGTTATTA AAAACTCTTCAGTTCTTGC CATCGGTGATTGCTGCAGCATTGAGAGAAACA ACTCATAG TTCCGATCAATCAACTTCCACTGGCTCTATAGAATCAGTCA TCCATGGAAATATGCTGCACATTGCACTAGTGGGGGTGAA CAACCAGATGAGCTTGTTGCAGGATAGTGGTGATGAAGAT CAGGCTCAAGAGAGAATCGATAAATTGGCCAAAATTCTGA GAGAGCAAGAAGTGAGTTCAGCCCTTCGTGCTGCTGGTGT TGGTGTGATTAGTTGCATCATACAGAGAGATGAAGGGCGA ACTCCGATGAGGCATTCACTTCTATTGGTCAGCAGAAAAACA ATATTATAGTGAGGAGCCTTTACTACGTCATTTGGAACCCC CTCTATCTATGTATCTCGAGCTGGACAAGCTTAAGGGTTAT GAAGATATCAAATATACTCCTTCCCGTGATCGTCAATGGCA TCTTTACACGGTTATTGATAAACCATTCAATCGGAGGATGT TTTTGAGAACCCTTGTAAGACAACCCATCTCTGAGTTCACA GGCGTCGAACTAAGCGCTCTTGAAACACAAAAGCCTATCT CTTCACTTCAAGAAGCATCCTAAGGTCCTTAACAACCGCC ATGGAGGAGTTGGAGCTCAATGCACATAGTGCTTCACTGA AACCCGATCACGCTCATATGTACTTGTACATTGTCCGAGAG CAACAAATATACGATCTTGTGCCATATCACAGGGAGGTGA ACATAGATCACCAACAAGAAGAGGCTTCGGTTCAATTCTTT TTGGAAGATCTCGCGCATGAAATCCATAGTCTTGCTGGTGT AAGGATGCATAAACTAAATGTTTGTGAGTGGGAAAGTGAAA CTTCGGGTATCATCTCCCGGGAAAGCTAATGGTTTATGGA GGGTGGCAGTTACTAATGTGACTGGTCATACCTGTTCCGT ACATGTTTATCGTGAATTGGAAGATAGCAACCTACATGAA ATGGTCTACCATTCAGTATCTGTTACGGCCCCCACCATGG GGTACCTGTGAATGCACCCTATCAACCACTCGGTGGCATC GCCCCTAAGCGACTTCAGGCCATGAAAAGTAGCACA ACTT ACTGTTACGATTTTCCACTGGCTTTCTCAACTGCCCTGAAGC AATCATGGGCATCGGAAGCTCCGGATGTCAAGAAACCTC GGACAAAGCGCTTTTGAAAGTAACCGAGCTTAGCATTTC TGATCCAAAAGGCACATGGGGAACTCCGCTTGTTCCAATA AATCGCAAGCCTGGTATGAACGATGTTGGCATGGTAGCCT GGTACATGGAAATGTCCACCCCGAGTTCCCTAACGGAAG AACATAATGGTTGTAGCTAATGATGTTACCTTCAAGGCCG GATCTTTCGGACCACGAGAAGATGCTTCTTCCTTGCTGTT
--	--	--	--	--

				ACAAATCTTGCTTGCGCGAAGAACTTCCTCTTATTTATCTG GCTGCCAATTCAGGAGCTCGACTTGGTGTTGCCGAAGAGC TAAAATCCTGCTTTAAAGTTGGCTGGTCGGATGAGTCAAAT CCCGAGAGTGGATTTCAGTATGTCTACTTAACCCCTGAAGA TTACGATCGTATAGGATCGTCAGTCATAGCCCACGAGTTAA AACTCGAAAGTGGAGAAAAAAGATGGGTTATAGATACCGT TGTAGGTAAGGAGGACGGATTAGGTGTTGAGAACCTATC GGGAAAGTGGTGCTATAGCCAGTGCATACTCAAGGGCTTAC AAGGAAACATTTACTCTGACTTTTGTAAACCGGAAGAACGG TCGGTATTGGTGCTATCTTGCTCGTCTTGGGATGCGTTGT ATACAGAGGCTTGACCAGCCTATAATTCTCACGGGTTTTTC TGCTTTAAATAAACTTCTCGGCCGGGAGGTTTATAGTTCAC ACATGCAACTTGGTGGACCGAAGATTATGGGCACAAACGG GGTAGTTCATCTTACAGTTTCCGATGATCTTGAAGGCATTT CATCTATCTTGAAGTGGCTGAGCTACGTTCCACCCTATTCA GGTGGTGAACCTCCGATTTCTCGGTGTTTAGACCCTCCAGA AAGACCGGTTGCGTATTTGCCTGAAAATTCTTGTGATCCTC GTGGTGCTATATCTGGTACGGTTGACTCCACCGGTAAATG GTTAGGGGGTATTTTCGACAAAGATAGTTTTGTGGAAACC TTAGAAGGATGGGCGCGAACAGTTGTCACGGGAAGGGCT AAGCTCGGAGGAATTCCAGTTGGCATAGTTGCCGTTGAGA CGCAGACTGTTATGCAAGTAATCCCAGCAGATCCCGGTCA ACTCGACTCACACGAGAGAGTCGTACCACAAGCAGGGCAA GTATGGTTCCCAGATTCCGCATCCAAGACAGCACAAAGCGC TGATGGATTTCAACCGGGAAGAACTCCCACTTTTCATTTA GCTAATTGGAGAGGTTTCTCGGGTGGACAAAGGGATCTCT TTGAAGGGATCCTTCAGGCCGGATCCACCATAGTTGAAAA TCTTAGGACTTATAATCAACCCGTTTTTGTATATCCCTAT GATGGGGGAGCTTCGAGGAGGCGCATGGGTGGTCGTCGA TAGTCGAATTAATTCCGACCATATAGAAATGTACGCCGACC AAACAGCTAAAGGAAATGTGCTTGAACCGGAAGGAATGA TCGAGATTAAGTTCCGAACCAAGGAACCTCTCGAGTGTAT GGGAAGGCTTGATCAACAACTCATCGGTCTCAAGGAAAAA CTAGCCGAAGCCAAGAGCTCTAATTCCTACAATAAAATCGA GCCCCTGCAGCAACAAATAAAAGCCCGCGAGAAGCAACTA TTGCCTCTATATACTCAAATAGCCACCAAATTTGCCGAGTT GCACGATACGTCTTTAAGGATGGCTGCCAAAGGAGTTATT AGGGACGTCTTGGAATGGAAAAGCTCGCGTTCTGTTCTTTT ACAAAGATTATACAGGAGAGTTATGGAGGAATCACTCGT CAAGACTGTTGAGATGCTGCAGGTGAACGGTTGACCCAT AAGTCGGCTTTGGAGTTGATCCAAAAATGGTTCAATGAGT CGAATATCTCCGGAGAGGCTTCCGATGCTTGGGCTGATGA TGCGGCCTTCTTTAAGTGGAAGGACGATACCGCCAACACTAC GAGGAGAAGTTGAAAGAGTTGCGCGTTCAGAAGGTATTG GATCAGCTGTCGAATATTGGAGATTCGGCAACTAATTTGA GGGCTCTGCCTCAGGGTCTTGCTGCCCTACTTCAAAGGTG GATCCATCGAGTCGAGAAGAACTAGTCGAGGAACTCCGTA GAGTGCTCACTTGATTTGCAACCGTTGATGGTGAAGTGA
--	--	--	--	---

				AACCTTCTTGGTTTCATCATGGTAGAAAATATTATTAGGCA AATCTATAATTCTAGTTACATCCATTGTTTTAGACAATAGTA TTGAACTAATTTATTTAATTAAATTGTATAAATAGGAGACC TTGAATTCATTTGAATTAAGTGGCTTATGCTTGCATTATTTT GTATTGAATCAAATAATTATTTACATACTTTTGATTATTAAT AATGGTAAATCCTCAAAATTTGAGGGATTTGTTACCT
11	Amaranthus palmeri	cDNA Contig	1582	GTTGCAGCATTGCATAGCCGTGATTGCAGTGTCCAAAGGC GGCACCAAAAGATCATTGAAGAAGGCCCAATAACGATAGC TCCACCAGAAACGGTGAAGAAGCTTGAGCAAGCAGCTAG AAGATTGGCTTTATGTGTGGGTTATGTTGGCGCAGCTACA GTTGAATATTTATACAGCATGGAAACAGGCGAGTTCCATTT CCTTGAGTTGAATCCTCGGTTACAGGTGGAGCATCCTGTTA CTGAGTGGATTGCTGAGGTAAATCTTCCAGCTGCTCAAGTT GCAGTTGGCATGGGTATCCCACTTTGGCAAATTCCTGAAAT CCGTCGGTTCTATGGGAAGGAACATGGTGGGGGTTATGAT ACTTGGATGAGGACATCTGCTTTGGCTACTGCTTTTGATTT TAACGAGGCACAGTCGGTGAAACCTAAAGGTCATTGTATT GCTGCGCGTGTGACAAGTGAGGATCCCGATGACGGTTTTA AGCCTACAAGCGGGAAAGTACAGGAGCTGAGTTTTAAAA GTAAACCGAATGTGTGGGCCTACTTCTCTGTTAAGTCTGGG GGAGGCATTCATGAGTTCTCGGATTCTCAATTTGGCCATGT TTTTGCATTTGGTGAAAACCGAGGTTTGGCCATAGCAAATA TGATTCTTGGATTAAGAAATTCAAATTCGTGGAGAAATT CGAACTAATGTTGATTACACCATCGATCTTTTAAATTGTTTG GATTATAGAGAAAACCAAATTCATACAGGTTGGTTGGATA GTAGAATTGCGATGAGGGTCAGAGCTGAAAGGCCACCTT GGTACATCTCTGTTGTGGGAGGAGGGCTTTACAAAGCATC GACTAGTAGTGCAGCGACTGTTTCAGAGTATATAGGCTAT CTTGAAAAAGGTCAAATTCCTCCGAAGCATATATCACTCGT CCACTATGAAGTTGCTCTAAATATCGAGGGGATGAAATAT ACCATTGAGATGATTAGGGGTGGACCAGGAAGCTACAAA ATGTGGTTGAATGGGTCCGTAGTTGAGGCGGAAATACATA CTTTAAGAGATGGGGGTCTCTTGATGCAGTTGGACGGAAA CAGCCATGTGATATATGCCGAGGAAGAAGCTGCAGGAACT CGCCTTCTGATTGATGGAAGAACTTGTTTGCTTCAGAACGA TCACGATCCTTCAAAGCTAATTGCGGAGACTCCGTGTAAGC TTATGCGGTATTTGGTACCAGATAACAGTCACATAGATGCA GATACTCCGTATGCTGAAGTTGAGGTCATGAAGATGTGTA TGCCTTTGCTTTCCCCTGCATCCGGTGTTTTACAATTTAAGA TGTCCGAAGGTCAAGCTATGCAGGCTGGTGAAGTATAGC TAGTCTAGAGTTGGATGATCCTTCAGCTGTAAGAAAAGCC GAACCTTTCAGTGGAAGCTTTCCTGTCATGGGCTCACCAAC TGCAATATCTGGAAAAGTTCATCAGAGGTGTGCCGCAAGT TTAAATGCCGCTCGGATGATTTTGGCTGGTTATGAACACAA TATAGATGAAGTAGTACAGAGTTTGCTGGAATGCCTTGAT AGTCCCG
12	Amaranthus palmeri	cDNA Contig	822	AGATGTGTATAAGAGACAGTATAATCAAGTTTTTTAGTACC CAAAGCTCTAAATGTTACTTAAAGTTTTGATCTTTAATGGT

				TTCTTCTATTTAATCCAATAATTTAAAGTACCCAGATTTCAA TTTTAGAAATAAATTGAGTTTTTGAATTGCCCAAGTTGTAAT TGTTGCTGAATTCTCTTGCTTTGATTTGGGTTTTCTGATTCT ATCCCTTCTGATTCATACAGTTTCAGGAGCAGTGGTCTCAT TTTCGAGCAATACAAAAAGTGCCGTGCTTCTCTAAACAACG ACGATTCAGACATGTCTTCTCCTTCCCACAATAATGAAAAC CCGAACGGACCGATGATGCCACTCCTGAGGAATTCATCTG TAGTATCCATTGTTGATAAGTTCTGTTATGCTCTTGGAGGG ACGCGGCCAATCCATAGTATTTTGATAGCAAACAATGGGA TGGCTGCTGTCAAATTTATAAGAAGTATCCGAACATGGGC TTACGAGACTTTTGGTACTGAGAAGGCTATATTATTGGTAG CCATGGCTACTCCCGAAGACATGAAAATCAATGCCGAGCA TATTCGAATGGCTGATCAGTTTGTTGAAGTCCCCGGAGGA ACTAACAACAATAACTACGCCAATGTGCAGCTCATTGTTGA GTTAGCGGAAGTTACACGAGTTGACGCAGTTTGGCCTGGT TGGGGACATGCATCGGAGATCCCCGAGTTGCCAGATTCAT TAGCTACGAAGGGAATTGTGTTTCTGGGCCCCCAGCTGC ATCTATGGCTGCTCTTGGAGATAAAATTGGTTCATCATTGA TTGCAC
13	Amaranthus palmeri	gDNA Contig	17981	AAACCAAACCAACCTCCTTAACTTCTCTTCTTCTACTCACC ATTTTTCTCTTTTTATTGATTATTGATTTTAAATATACATT ATATTGTAGGAATTTAATGAAATTTTCATTAAATTCTGATA AAGTTTTGATTTTTTTTAGTGTATGAGATTTTTCAGAAGTAC CCAAATGGTAAATTTCAAGTATAATCAAGTTTTTTAGTACC CAAAGCTCTAAATGTTACTTAAAGTTTTGATCTTTAATGGT TTCTTGATTTAATCCAATAATTTAAAGTACCCAGATTTCAA TTTTAGAAATAAATTGAGTTTTTGAATTGCCCAAGTTGTAAT TGTTGCTGAATTCTCTTGCTTTGATTTGGGTTTTCTGATTCT ATCCCTTCTGATTCATACAGGTATTCTGATTTTTCTTGCTT GATTACTTTTTGTTAGTGTATGGTTGAGCTAATTTAGTTTAT AGTAGTGTGAATTTTATTTATTTTTTTCAATTTTTCAATT ATTTCAATTTGTAGAGTAGATTCTCCTATTATGATTTGTTTT TGTAGCTGGGTTTTAATTTTTATTGTCTGATGATTATCTTA GCAATGTTTTAATGGGTGTGCTGTTTTTCAATTTATAGTGT AATTTAGTTGATTCCTCTTTTCCAATAGAGTGTACAAAACC GACCTGATTAAGTAAACCGAGTATTATCCAACGGGAACA ATCCCTGTTACAAAATTCAAATTAGAATGTCAAGTACCGAA ATCAACCCGACCCACATATTATACCCGAGATCCACCCGAA CACCCGAATGAACACCTCTGAGATCATAGAGAGGATATAA AGAAAAGTGGAAGTGAATGGGGAATTTAGTTTATTTGAG CTACATTGAGCAAAATTTTTTTTAGTGACTGATTATTGTAGC TGGCTTTTGTTGTATAACTCATCTAAGCAATGTTTTTGATGT GTGTGCAGTAGCATTGGATTGTTTTGATTTTTGTTATATTG TCTATACAATTCAAATCTTGAATCACACTTGACTTTTAGTTC CATTTTCATCTTCACAAATTCTTGTGAGAGACTGTCAACTGT GAGACGCTCTCTGTACATGGGCTAAATAGCGTAACTAATA CAACTATTAGCATATGAGCTTCTTATTTTGAGGTCGTCTCTC ATAAGAGTAGCTCTCTGTTCTTTTATGATTTATGATTCAATG

				CAAATAAATTATTTACGGCCCGTGTGGTAGGTGGTAATAA ACAATAGTAATGAGAATGAAAAACAAGTGTAATTTTGGTT AAAAAATCTCTTGGTTACGTTGATGGTCATGCTTGTCCAAC TTAAATCATCTCACACTATCATTGGGAGAGGTGGTGTTAG GTGGTAATGAAAATTTGTAAACAAAAAAACTTGTGTGTGAT CAAAGTTTCATTACCATAGGAACGATACGGAACCTTTGATG AAATTTTACACTATAAATCATTTCATTACCACCATTAGTA CCTCTAACCAAACGGGACGTTAGAGTTTTGCTTACCTACAA TATCTTCTTAGCTCATAAGCTCAGAACCTTACTTCAATTTTG ACCATATGTTTCTAGCTATACTTTTCAAGTAAGTATTTAAAAAT TCATTTTCATTTTATCTATGTATAGTTGCGAATGATGTTTGT TATAAAGGGTCAATCGAAAACTTCCTCTTTGTTATTAGTA ACAAGGGTAAGGTTATGTACATCCAATCCCTCCAAACCCTT TTTGGGTGGGAGCTACTAATGGCGCTGGGACAATGGAGTT GTTGTTTGTGAATTCAAGCGGGGAAGTTTGTGTTAGAATG AATGTTATTTCTAAAAATAGATGGTATAAGTATGTTAATCA ACAATTAATAATAGAGAACTGTTTTATTGGTGTGATAAACA GTTTCAGGAGCAGTGGTCTCATTTTCGAGCAATACAAAAA GTGCCGTGCTTCTCTAAACAACGACGATTCAGACATGACTT CTCCTTCCCACAATAATGAAAACCCGAACGGACCGATGAT GCCACTCCTGAGGAATTCATCTGTAGTATCCATTGTTGATA AGTTCTGTTATGCTCTTGGAGGGACGCGGCCAATCCATAG TATTTGATAGCAAACAATGGGATGGCTGCTGTCAAATTA TAAGAAGTATCCGAACATGGGCTTACGAGACTTTTGGTAC TGAGAAGGCTATATTATTGGTAGCCATGGCTACTCCCGAA GACATGAAAATCAATGCCGAGCATATTCGAATGGCTGATC AGTTTGTGGAAGTCCCCGGAGGAACTAACAATAATAACTA CGCCAATGTGCAGCTCATTGTTGAGGTAATGTATCGTGAG ATTAGAAATTTCTAGCCTGTAATCCATAGTTACATGGAATG TGGAACATAGCCACGTTCCGCGATTCCGGGAACATTCAATCC CAATCACCATGAAACCCGACCTAAATCACTAAAGGTGACG TCCCGGTGTAGAACACCTTTTTTTTAAAATGTATTTTGGCC TTCATTTACAAATTAAAGGAAAAAGAAAGGAGGAAAAAAC AAGATGTAACCCAGAAACCTAAACAAATCCACTTGAAAAT AATTTCTTAAAGCAAATTAATCATTTTAGTTTAATTTGTTT CAAATATATATATTATACATAATGTGTCTCATACCCAATCGT TCTTGAGTAAATCTAGGTTGCGTTCTGTGTTCCCATCTTGT TTCCCGTTTCGAAACCAAATGTCGTTTCAGTTAACAATGCTGT TATCTGCTTTACTGTGATTTATTAAATGTGTCCTTTGAAAAA AAGGCAATATCAGAGCGACTCGACGCAGTTTGGCCTGGCC GGGGACATGCGTAATATGTAATATGAGATTACAAATTTAT AACCTTTTATATGGTAAAATCTTGTGGTAGGACTAACTTAA ATCCTTTTTCTTTCAGTTAGCGGAAGTTACACGAGTTGACG CAGTTTGGCCTGTTGGGGACATGCATCGGAGATCCCCGA GCTGCCAGATTCATTAGCTACGAAGGGAATTGTGTTTCTG GGGCCCCCAGCTGCATCTATGGCTGCTCTTGGAGATAAAA TTGGTTCATCATTGATTGCACAAGCTGCAGATGTCCCAACT CTCCATGGAGTGGTTCTCATGTACGTACTACACGTTTTTTT
--	--	--	--	--

				TTTTTTTTTTTTTCTTCCAAATTTCTGATCTTTAGAGTTTT AGTGATAGATTTATATACGTCTCTATCCCTCAGGTGAAAAT TCCTGCTGAGAGTTGCCTAGACGTAATTCCCGATGAAGTAT ATAAAGCGGCATGTGTTTTTACTACAGAGGAAGCAATTGC TAGCTGTCAAGTTGTTGGTTATCCGGCTATGATCAAAGCTT CTTGGGGTGGTGGAGGGAAGGGAATAAGAAAGGTAAAAT TTTTTTGGATGATGATGCTCTTAAAAGACTAAAAGGAGGTT ACACATATCCCCATTACTTGTTTATCATCAGAAGCAGAGCA AAAATTGACAAAGATTTAAAGACTCTGTGCAATTTCAAAAA TATGATATATTTCTAACAACGTATCTTCAAACACTTTAAACA TACTACCTATTTTAATACTGCGGCCCTATTTTTTTGAGGCC GTGTGTGGTTCGAACATATTGAATATGCTTAGAACCACTCCT GTTTATCACTAATATGCCATCTTCCACAGTCGAACCTCTACT TTGACCCAGATTCCTTGAAAGGGATTTTCGATTTAGACTCGA GCTATGGTCAATTATTAGCAATAGCAAAAGCTTCTTAATAG TTAATAGATTCTCAAACACTTCCGTCATGCCAACACTTTATG AAGACTCATGGGTATTCTCTCTTTTAGGTTTATAATGATGA CGAAGTACGGGCATTATTTAAGCAAGTGCAGGGTGAAGTT CCCGGCTCACCCATATTTATAATGAAGGTGGCTTCACAGGT TAGACTTTCTTCAACATTGGTCCGATATTCGAGTAAATTGC ATTAAAAAAGGTTAAATATACAATTTTTTTGGATAAGTATT GTATGAGAGACTACTACTAAGATAAAGTATTATTAATATGT GCAGAGTCGACACTTAGAAGTACAGTTACTGTGTGATGAA TATGGCAATGTTGCAGCATTGCATAGCCGTGATTGCAGTG TCCAAAGGCGGCACCAAAAGGTGGGTCTTTGGTAGATTAT GGTTATGATCTACGGTTTGTTATTGTTAAGAAAAATATTT GATTTTAAGCATTATTTAGCTTGCTGGGATTTGAACTTTTCT GTTTCATCATTTTAATAATCAGATCATTGAAGAAGGCCCAA TAACAATAGCTCCACCAGAAACGGTGAAGAAGCTTGAGCA AGCAGCTAGAAGATTGGCTTTATGTGTGGGTTATGTTGGC GCAGCTACAGTTGAATATTTATACAGCATGGAAACAGGCG AGTTCCATTTCTTGAGTTGAATCCTCGGTTACAGGTATGG AGCTTCCCCAACTTCTTTAAGTACCCATTATGTAAGTGCAT ATTTATGTAATCCCTCCATTCCAAATTAGTCGCTATGTATTC CTATGGGGATGTCCCAAATTAGTTGCAACATTTCTGTATAT GGTAAAGTTTTCCCCTCCAAACCTTAAACCTAGTTGACCA TAATCTAACTAAACCCAATTCTTGACCCACTTTGAAAAACA GGTCAAATGTTGGTGTGTTGAACCACCTTTAAACAAATTTAA GATTTTGGGTTGGTAATGGCTTATCAGAGATTTGGGTTTTT GGCATCGGCATTATTTTGGTGTGATTTGCAAATGATATCC CGGGATTTCGAACTAGGAGGGGATTCAATTGGTTTTTTGAG GAATTTATGTAATTATTCCTTTAATTAGTGATCATTGAATTG ATTGTATTTGTGTTGGGGAATTGGACCCGTGAAGAAAAAA ATGACGGGTTAGCTTTTGGATTAGTGAGTGATTATGTGAG TTTAATTTGTCTATGAAAGGTCAACTTCAAGCAACATTTTCT GTTTTAGCTTAGTAATTTTTGGGATGCGATGGAACATTTGA GCACCTTCTGGATTATCAACAGAAATGATCATCGAAATTGA TTTTTTAGTTGTTGACAGTAGAAAAGTATCAGATAAGGTA
--	--	--	--	---

				GAATAATACAGTATAATCTTTAGTTGCGACAATTTCCAACG TTTTATAATAGCTAAAGCTACATTCTCATGTTGCTTGATGA AAGTGACCGTATTTATTCTGTGTGCTTATACAGGTGGAGCA TCCTGTTACTGAGTGGATTGCCGAGGTAAATCTTCCAGCTG CTCAAGTTGCAGTTGGCATGGGTATCCCACTTTGGCAAATT CCTGGTAAATGTCCAGTACTCTTTTTTCGGTTATGTAACTTA TATATTATATCTAATTCTTATTTACGAACCGAATTGATCACA CATTTTTAAAACAGAAATCCGTCGGTTCTATGGGAAGGAA CATGGTGGGGGTTATGATACTTGGATGAGGACATCTGCTT TGGCTACTGCTTTTGATTTTAACGAGGCACAGTCGGTGAAA CCTAAAGGTCATTGTATTGCTGCGCGTGTGACAAGTGAGG ATCCCGATGACGGTTTTAAGCCTACAAGCGGGAAAGTACA GGTTAGACCATCCTGGTTTTGTCGATTTACTTCCACAATTG GTCTTGTTTTGTTTTGCCTTTGCGGTGAAGAATTTTCTTTA ATGGGTGCTTTGTTTAGGAGCTGAGTTTTAAAGTAAACC GAATGTGTGGGCCTACTTCTCTGTAAAGGTATTTTCCATATT TCTTTAATTCTTTGATTTTCGCGTTTACAATTCAGTTCCTC CATTATGGGCTTGATGATGATAAACACTTTTATTTGCAGTC TGGGGGAGGCATTCATGAGTTCTCGGATTCTCAATTTGGT AAGTTAATGGTGCAAACCTCTGTGAGTAATGTAACTACAG TTTACATGATTTACTAATCTCTTCGTGAATTGCGAACTAAA AAAGAGAATTATTGTCAGTTTTGGGCTATTTTTTATTCCATT TTGAGCCAATGGAAATCAAAAAGCGAATAGCTAGCGAAT TTGTTGATATTCTGGAGGTGTATATTGATGAGAATTTTAC AAAAAGTTGCTGCTGCTGCACTGTGTTATTTTTTAGAAACA CTGGGTGACTTTCAATTGTTTGTAACCTTGCAATTCGAG TCACAACATGATGTCATAATGAAATGCGAGCGGTTTTTATT AAATAATAGAGCCATAGTGTAATCGACCAATATTAGGTG GTGCAATGACCGCATCACTCCCGTTACCGCATTACCGTTCC CTACCGCGATCACGATCGTTAGCGCATTTTTACGCTATGAA TAGACCTTCAGTTCATATTTTATGATGGCTAAAATCAATCA CTTGGTTAATGGTATATCATATACGAAGGCTAACAAAAGA ATTTCTTTACAGGCCATGTTTTTGCAATTTGGTGAAAACCGA GGTTTGGCCATAGCAAATATGATTCTTGGATTAAAAGAAAT TCAAATTCGTGGAGAAATTCGAACTAATGTTGATTACACCA TCGATCTTTTAAATGTGAGTTTGAATGTAATTTTTGTTGTCT TTTTTAGTTTTCGCCTTTCTTCTGTAAACCTTTGAAGTTCT CACACTTAACTTTTTTTTCTCCAGTGTTTGGATTATAGAGA AAACCAAATTCATACAGGTTGGTTGGATAGTAGAATTGCG ATGAGGGTTAGAGCCGAAAGGCCACCTTGGTACATCTCTG TTGTGGGAGGAGGGCTTTACGTATGTACAACTTTTTCATAG CTATCATTAATTTTTCCGTTGTTATGATCTGTGTTACTTGGA CTCGGGTTGTTGGATACTGGTATGTGTCCACGTGTCGGAT ACGTCTAAATATTCAATTTTACGCCTAAAATGAAGTATCTA AGTGCCATGTCCGAGCATCAAGAATCGGACACGGGTACGT GAAGCCAAATGAAGAGTCCGAGTAACATAAGTTATGATTA ATGTTAAATAACTTGTTTTCTTTATCCTCTATATCCAGAAAG CATCGACTAGTAGTGACGCGACTGTTTCAGAGTATATAGG
--	--	--	--	--

				CTATCTTGAAAAAGGTCAAATTCCTCCGAAGGTATGTAACA TACAATTGGTTGGCGGGTGTTTAGATTAACCTATTCTATTA ATATCAATTATACTTTCAGTGTTCTGCTTTAATTCTGGTTTC ATGATTGCAGCATATATCACTCGTCCACTATGAAGTTGCTC TAAATATCGAGGGGATGAAATATACCGTATGTTCCATGCC ATTCGTACTTTCCTCGTGAATTTTTGTTATGGATGCTATTTT TGACATTTTCTTTCTAAATATATTTTCTTGAAATTAATGAAC ATGTCGTTTCGGATTGCCAGATTGAGATGATTAGGGGTGG ACCAGGAAGCTACAAAATGTGGTTGAATGGGTCCGTAGTT GAGGCGGAAATACATACTTTAAGAGATGGGGGTCTCTTGA TGCAGGTATCAAATGTTTTTGTATTTTTTTTTCTGATATA CGGTATTTATTTTTATATCCAAAGCATGGTGATAATACCC TGGATTTGTAAAGCATTAGATAATATGTTATCAAACAAGTA GAAGGTAGTTTCGTGAAACCATGAAGCGTTTAGTTAGAT TTGAATTTAATACTTCTACAATGCTTGGGATATTAATCAAT AATCATGCTTCTAATAGTAAAGAGAAATATTGTCATAGACT CATAGGTATAATGGCTCGTTAAATCATATGCACTTCTTGTTT ATGTGAAGTCCGAGTTGGTGTTTGCAATCAACGTTTGAAAT CAAGGGCATAGTGCAAAATCTCGAATGTGGTCACTTTTGT GGTCAATGTAGATGGTTTCATTTCTATCGTGGTATAAATAT GGGTCGCAGTAATCTTAAGAACCTATATAGTAGACGATAA CTTGTTATTAAAAGGGTAAAGGCTGCATACATCCGATGTCC CATTTACCCGGTCTAGATGTGAGCTACTTGGGGTTTTTGT ATTGAAGTTAAAGATACAAGAAGGATTATTGCTAAAAAAA AAAAAGAATATTTGAACTACAAAAAAGTAATTAGTTTATG TACTAGTTCGTTCTAGCCCATATAACTCATTTAAAAAATAT ATGAAAAAGGGCTTTCAATGTCATGAACGGAAGGGAGGA AATGGACTGTGGAAGAGTCAACAAAGATTACATATGAATT CTTTTTGTTGTTTAAAAAACTTTGAAATTGAAAATTGTTGG CTTTTTGTTGAAGAAACGATGTGTGTCAGTTGAAAACAGA ATATTTAACTACAAAAAAGCAATTAGTATATACACAATA CACTTGTTCATTTAAACCCATATAGTACATTTAAATAATTAT TTGAAAAGGGCTGTTAATGTGTGAAGACTTTCGCTATATTG ATCTGATTGGATATGTGTAATACCTTGAAACGTCATGCAGT TGGACGGAAACAGCCATGTGATATATGCCGAGGAAGAAG CTGCAGGAACTCGCCTTCTGATTGATGGAAGAACTTGTTTG CTTCAGGTAATGCCGTGTGATTCTCTTTTTTTTTTTTTTGT GAATTCTAAACCTTAAAAATCATTCTTCACCGGACATGTTC ATTTTTCCATATAGAACGATCACGATCCTTCAAAGCTGATT GCGGAGACTCCGTGTAAGCTTATGCGGTATTTGGTACCAG ATAACAGTCACATAGATGCAGATACTCCGTATGCTGAAGTT GAGGTCATGAAGATGTGTATGCCTTTGCTTTCCCGAGCATC CGGTGTTTTACAATTTAAGATGTCCGAAGGTCAAGCTATGC AGGTATGCATCATTTTAATCGTAAATTCAGCAACCTCGTTT ATATTGGATTCTATATATGGTCTTGCTGTGTAGGCTGGTGA ACTCATAGCTAGTCTAGAGTTGGATGATCCTTCAGCTGTAA GAAAAGCCGAACCTTTCAGTGGAAGCTTTCCTGCCATGGG CTCTCCAAGTCAATATCTGGAAAAGTTCATCAGAGGTGTG
--	--	--	--	--

				CCGCAAGTTTAAATGCCGCTCGGATGATTTTGGCTGGTTAT GAACACAATATAGATGAAGTAAGTTTCAAACCACCATTTCA TTTTCATCAACATAGTTTTTAGGCTAGCCTCTTAATGGGTT GATGCCATAGTGTA AAAACAAGGCCACATCGCATCACGTC ACCGCGTTGTTAAGGATTTCAAAAACAACGAACCGATATTT CCCATGTTGTGGGCCGTACCAAGGGATATCTTATGGTTTTG ACCGGTATTTAGGCGTTACAATAACCGCATCACTCCCGTTA CCGCATCATTGTTCTGTTACACTATGGATGCCGAACCTTGA GATGCATTTCCATTTTTCAATAGAGCCCCTAGTTTTTTTCT TCCTGTTTGGAATTTTTTACATGTGAGCCTTTTATTTTCTC AGGTAGTACAGAGTTTGCTGGAATGCCTTGATAGTCCCGA ACTTCCATTCTTCAATGGCAAGAATGCTTGTCTGTGCTGG CAACACGACTCCCCAAAGATCTGAGATACGAAGTGTGTAT TCTATCATCTGTTCTTTATTTAGTTATTTATATTTCTTATAA TAATTTTGAACTTTTCTCGGAGTTTACAGTTGGAATCAA AATCTAGAGCTTTTGAAGCGATTACCAACACCCCAAACGTA GAATTTCTGCTAAGTTGTTGAAAAGTATTCTTGAGGTTAG TACCTCACTTTGTTACCTTCTGTAAATTATTCATTCGGCGAG TTAATCATGTTAGTAACATGTTTATTCTTCGTAGGACCATT AAATCATGCCAAGAGAAAGATAAAGGAGCTCAAGAGAG GCTTATTGAGCCTCTTATGGTTCTTGTAAGTCTTACGAAG GTGGGAGAGAAAGTCATGCTCGTTTTATTGTTCAATCTTTA TTTGAAGAGTATTTGTCCGTTGAAGAATTGTTTAGCGACAA TCTCCAGGTTTGTCCATCTATCTAGAGCAATTTGATTATGAT GTTTTTTTAAAGTTCATAAATTTAGCTTGGTGCCACACCGT CAGTGGCTGATGATCGTCGCTTTGTGATCATTAAGCTTTTA AAAGCTGTCTCCTGTTCTCCATCACTATTTTLAGAAATTTG AGTTCTGATGTATATACTCGGTACCCGAGGGACTCTTTGGC CGCTTTCTTCTTTATGGGTATGAGTTGCCTCCTTCCTCCCT CCCCAGATCCTGATCATAGTTTCTATGAGCGGGATACATTG GGTATGATGATGATGATGTATATACTCGGTGCTGAGCCAG CATATGAAAAGCAAAGTGTCTGAATTTATCTTATGTCTTT AAAGAATACCGAGGCACCTGATTTTACATTTTATCTTTATTT TTTTCTGTATGAAGAAATAGTAAATTATATTCTTCAATAGTT GACTCGGAGTGATGTTTGTAAATATGTTTAGAAAAAATGTT GGACTAGAAAGTCAGCGCAGCGCATATATTAGTTTATGAT TGTGGCTTTAATCAGTTTATGCTTTTGATGTTAATCTTTCCA GGCTGATGTGATTGAACGTCTCCGCCTTCAGTATAAGAAG GATCTGCTGAAGATTGTTGACATTGTAATGTCGCATCAGGT ACGTATTCTTGATTTACTGTTGTTCCCTTTGTTCTCTTCGGC ATTTCTATTTTTTTTTAATATATTTTATGGTTTTTCAGGGTGTT AAGAATAAAAATAAGCTGATTCTACGACTCATGGAACAGC TGGTTTACCCAAATCCCGCTGCATACAGGGGGCAACTTATC CGTTTCTCTCAATTGAACCATACAATGTATTCTGAGGTTGG TGATCCTCAAACACCCAAAGCTATGTATTCTCATAATGCTT AAGTAGAGTAATAATTAATAATTGTCCAATGATTGCAGTTG GCACTAAAGGCCAGTCAATTGCTTGAACAAACGAAATTGA GTGAGCTCCGTTTCAACATTGCTAGAAACCTCTCTGAGCTA
--	--	--	--	---

				GAAATGTTTACCGAGGATGGTGAAAACATGGATACTCCAA AAAGAAAAAGTGCTATTAATGAACGTATGGAGGCCCTTGT GAGTACTCCTCTAGCTGTTGAAGATGCCCTTGTGGTTTGT TTGATCATAGTGATCATACACTTCAGAGGCGGGTTGTTGA GACCTATGTTTCGGAGGCTTTATCAGGTGAATACATACTTTA AATGCGGACTCGGTCCTATTATTGTAGAACTTCTCTTGA TCTTTCTCGAGTCGGGGGACTCTTTGGCCGCACTCTCCTTT ATGGGTATGAGTTGCCGCCTTCCTTCCCTCCCCAGACCCTG CACATAGTTTTTCTATGGGAAGGATACTCTGGGTATGATGA TGATGATTATTATTATCGCTACTTGAACAATTTTTCTTATGT TATTTAACTCCTTTTTTGTGTTTGGCAACCGCTTCTCAGCCT TATCTTGTCAAGGGAAGTGTCAGGATGCTGTGGCACAGAT CAGGTTTCATAGCTTTATGGGAATTTGTTGAGGAGAATATT GACCGAACAAATTTTTCTGATGATCTGACTACAAACAGTGG GAACCATAGTGAGCGAAAGTGGGGGGCCATGGTCGTTAT TAAACTCTTCAGTTCTTGCCATCGGTGATTGCTGCAGCAT TGAGAGAAACAACCTCATAGTTCCGATCAATCAACTTCCACT GGCTCTATAGAATCAGTCATCCATGGAAATATGCTGCACAT TGCACTAGTGGGGGTGAACAACCAGATGAGCTTGTTGCAG GATAGGTAAATAAGACTAGCCTGTAACATATGGTGTAATA ATCTTTATTATGTAACTTGTGCTTCTAATGTCCTTTAGTTCT ATGGACTATATTAAAGTACACTTCTTGTTTCATGTGATGTTG ATGTTGATAATTGCTATCGGGTCAATCACAAACAACCTCTT TGTTATCACTTGAGGTGTTCAAAATAGACCCGATGACTCGA TATTCATCAGATCTTGTAACCTGAACTCGACTTCAAAATGAA TTTAAATATATAAAAATCAATATGGACACAAGACCGGAT ATCAATCCGACCCGAAATAGTTGACTCGAAATCAACTTGAT GATCCGAATGAACACCTCTAGTTATCACTAACAAGGGTCA GATTGCGTACATCAAACCCCTCAAATCCTGCTTAGGTGGGA GCTTGTCAATGGCTTAGGGGTAAACGGGAATGTGTGTGCTA TGTACATTGTGCATCTATTCTTATACTTATGTTGAGTTTTT GGATCAAATATAAAGAACTTAACTTTTGTATTTTCTTGATGT GGTGTAGTGGTGATGAAGATCAGGCTCAAGAGAGAATCC ATAAATTGGCCAAAATTCTGAGAGAGCAAGAAGTGAGTTC AGCCCTTCGTGCTGCTGGTGTTGGTGTGATTAGTTGCATCA TACAGAGAGATGAAGGGCGAACTCCGATGAGGCATTTCATT CTATTGGTCAGCAGAAAAACAATATTATAGTGAGGAGCCT TACTACGTCAATTTGGAACCCCTCTATCTATGTATCTCGAG CTGGTACTAGTCTCTGAACCGATTGCCTTTCTTCTGCTTTGT TATTCTGTGTGATATTTGCACTTAAGTCTAATTTACATCGTT TTGTACATTTGTTATCCAAAGCACGTTAAAAGATACTTCCTT CGTTTTTTTACAAGCACCCAAACACCTTTTTTACGCAGCCCAA TTGGTTTGTGCGGGTTGCTTATATATAGAATTATACTCAACTT AAAAATTATAAAATTTGATATTATGAAAGTATTCGACGTGA CGAATTAAACAAAATCCCATATGACTATGTTTTTTCTCGTT TAATAGCTGTAATATGTAAAATACTATCGAATGATGAATAG TGTA AAAACTGGTTTGGGTGCAACTAAAAAATGGAGGAA GTATAATTATGCAGCCAAAATTGATGGCTTTTAACTTTTCAT
--	--	--	--	---

				CAAATCAGGACAAGCTTAAGGGTTATGAAGATATCAAATA TACTCCTTCCCGTGATCGTCAATGGCATCTTTACACAGTTAT TGATAAACCATTTCATTTCGGAGGATGTTTTTGAGAACCCTTG TAAGACAACCCATCTCTGAGTTCACAGGCGTCGAACTAAG CGCTCTTGAAACACAAAAGCCTATCTCTTTTACTTCAAGAA GCATCCTAAGGTCCTTAACAACCGCCATGGAGGAGTTGGA GCTCAATGCACATAGTGCTTCACTGAAACCCGATCACGCTC ATATGTACTTGTACATTGTTTCGAGAGCAACAAATATACGAT CTTGTGCCATATCACAGGTATCTATTGCTGCGTGCCTCATTT TTTTTTTGTTTATTATTGGTCATTAGTACACCTTATTCTTAG AAGAACTTTTTTCGGCCAATTATTTCCAGGGAGGTGAACA TAGATCACCAACAAGAAGAGGCTTCGGTTCAATTCTTTTTG GAAGATCTCGCGCATGAAATCCATAGTCTTGCTGGTGTAA GGATGCATAAACTAAATGTTTGTGAGTGGGAAGTGAACT TCGGGTATCTTCTCCCGGGAAAGCTAATGTTTTATGGAGG GTGGCAGTTACTAATGTGACTGGTCATACCTGTTCCGGTACA TGTAAGTCATAAGTTTGAGAACCTCTTTTTTGATCTAGTCAC AATTTTGATTTTTCACAAATTCTTGATGAGACGGTCTCACC GTGAGAATCACCCCATACTTGGATTAAATAGCCGAATAATA GAACTTTTAGCATAATGGACCTTTTGTATGAACTCGTCTC ACGGAGAGAAGGTCTCATACAATAGGGGGCAATTAATTTTT AGCTTTTTATCGGTAAATTTTGCATAGTACATAGTTTTGAAT TTTGAGAGGTTGAGTCTATGTGACAACGAATATTTAATTGA GTATAATGTTGTTTAATCCAAATATGATATAAAAGGGTGTG GCATATGTGATTGAGCATTCTTTTTCTTTCTATGGGAAGT TAAAGGTCTAAACCTTGGTATAATTTCTTCAATGATGAGC AATCAAAGGGTTTCAGACCTGTTTATTTATGACTCGAAAGT CGAACCCAAACCAGAACCCGAACCCGACTCAACTTGATTTT TTTGACATGCCTAAATGGAACCTACAGATGTATTGGGGAAA ATAATTAACTAGAAAATGGGGAAAATAATTAACTAGAA AATGGGGAAAACAATTTACCTAGAATATGTTTTCAGCCAAA ACAAACTCCCAAATACATTTCTTAGCATCCACAAATGCC GAGGAATTGCAATGGAACCTCAGTTCCTCGGTTCTTCAACG TAGAGACGTATATAATTCTTTTTTGCACGATATCATTAAAGG TTAATTGACCTGTTTTTTCTATGAAATATAATTTAATTTTTAT GCTCTTTAGTTTGTTTTACTACACATGAATAGTTTTGGTTTT GAGTGATCATTTTCTTACATTATTGATGCCCAGGTTTATCGT GAATTGGAAGATAGCAACCTTCATGAAATGGTCTACCATTC AGTATCTGTTACGGCCCCCACCATGGGGTACCTGTGAAT GCACCCTATCAACCACTCGGTGGCATCGCCCGTAAGCGAC TTCAGGCCATGAAAAGTAGCACAACCTTACTGTTACGATTTT CCACTGGTACGGAATTTGAAAATTTCACTACTCCCTCCCC GTCTTCCCCTTAATATACTTTGTCGCCCGTTATTTCATATTCC GTTTTATCAACCATGCAAGGATCTTCCAGGGTTCCGAATTT CATTTTTTCGTACTTCCAAAGTTTCAGGCAAACCTTACTTTTT TTGACGCTGTTGTTTTCAGGCTTTCTCAACTGCCCTGAAGC AATCATGGGCATCGGAAGCTCCGGATGTCAAGAAACCCTC GGACAAAGCGCTTTTGAAAGTAACGGAGTTAGCGTTTGCT
--	--	--	--	---

				GATCCAAAAGGCACATGGGGAACCTCCGCTTGTTCCAATAA ATCGCAAGCCTGGTATGAACGATGTTGGCATGGTAGCCTG GTACATGGAAATGTCCACCCCCGAGTTCCCTAATGGAAGA ACAATAATGGTTGTAGCTAATGATGTTACCTTCAAGGCCG GATCTTTTGGACCACGAGAAGATGCTTTCTTCCTTGCTGTT ACAAATCTTGCTTGCGCGAAGAACTTCCTCTTATTTATCTG GCTGCCAATTCAGGAGCTCGACTTGGTGTGCGGAAGAGC TAAAATCCTGCTTTAAAGTTGGCTGGTCGGATGAGTCAAAT CCCGAGAGTGGATTTAGTATGTCTACTTAACCCCTGAAGA TTACGATCGTATAGGATCGTCAGTCATAGCCCACGAGTTAA AACTCGAAAGTGGAGAAAAAAGATGGGTATAGATACCGT TGTAAGTAAGGAGGACGGATTAGGTGTTGAGAACCTATC GGGAAGTGGTGCTATAGCCAGTGCATACTCAAGGGCTTAC AAGGAAACATTTACTCTGACTTTTGTAAACCGGAAGAACGG TCGGTATTGGTGCTATCTTGCTCGTCTTGGGATGCGTTGT ATACAGAGGCTTGACCAGCCTATAATTCTCACGGGTTTTTC TGC GTTAAATAAACTTCTCGGTCTGGGAGGTTTATAGTTCAC ACATGCAACTTGGTGGACCGAAGATTATGGGCACAAACGG GGTAGTTCATCTTACAGTATCCGATGATCTTGAAGGCATT CATCTATCTTGAAGTGGCTGAGCTACGTTCCACCCTATTCA GGTGGTGAACCTCCGATTTCTCGGTGTTTAGACCCTCCAGG AAGACCGGTTGCGTATTTGCCTGAAAATTCTTGTGATCCTC GTGGTGCTATATCTGGTACGGTTGACTCCACCGGTAAATG GTTTGGGGGTATTTTCGACAAGGATAGTTTTGTGGAAACC TTAGAAGGATGGGCACAAACAGTTGTCACGGGAAGGGCT AAACTCGGAGGAATTCCAGTTGGCATAGTTGCCGTTGAGA CGCAGACTGTTATGCAAGTAATCCCAGCAGATCCCGGTCA ACTCGACTCACACGAGAGAGTCGTACCACAAGCAGGGCAA GTATGGTTCCCAGATTCCGCATCCAAGACAGCACAAGCGC TGATGGATTTCAACCGGGAAGAACTCCCACTTTTCATTCTA GCTAATTGGAGAGGTTTCTCGGGTGGACAAAGGGATCTCT TTGAAGGGATCCTTCAGGCCGGATCCACCATAGTTGAAAA TCTTAGGACTTATAATCAACCCGTTTTTGTATATCCCTAT GATGGGGGAGCTTCGAGGAGGCGCATGGGTGGTCGTCGA TAGTCGAATTAATTCCGACCATATAGAAATGTACGCCGACC AAACAGCTAAAGGAAATGTGCTTGAACCGGAAGGAATGA TTGAGATTAAGTTCCGAACCAAGGAACCTCTCGAGTGTAT GGGAAGGCTTGATCAACAACCTCATCGGTCTCAAGGAAAAA CTAGCCGAAGCCAAGAGCTCTAATTCCTACAATAAAATCGA GCCCCTGCAGCAACAAATAAAAGCCCGTGAGAAGCAACTA TTGCCTCTATATACTCAAATAGCCACCAAATTTGCCGAGTT GCACGATACGTCTTTAAGGATGGCTGCCAAAGGAGTCATT AGGGACGTCTTGGAATGGAAAAGCTCGCGTTCTGTTCTTTT ACAAAAGATTATACAGGAGAGTTATGGAGGAATCACTCGT CAAGACTGTTGAGATGCTGCAGGTGAACGGTTGACCCAT AAGTCGGCTTTGGAGTTGATCCAAAAATGGTTCAATGAGT CGAATATTTCCGGAGAGGCTTCCGATGCTTGGGCTGATGA TGCGGCCTTCTTTAAGTGGAAGGACAATACCGCCAACTAC
--	--	--	--	---

				GAGGAGAAGTTGAAAGAGTTGCGCGTTCAGAAGGTATTG GATCAGCTGTCGAATATTGGAGATTCGGCAACTAATTTGA GGGCTCTGCCTCAGGGTCTTGCTGCCCTACTTCAAAAGGTA ATCTGATTTATTTTATGTACATTCTTTGTTCTTTCTCGTTTGG GTTGGATGTCGCTTTTGTAAACGGGTCGGGTCGGATCAATA TTTTAATGGGCCGGGTCAAGTCATGTCAAATTAATTGGG CTTATGGGCTTTTTGTTTTGAGGTTGTCTACCGTGAGACG GTCTCATACAAGACGGGCAGAAATCTAAAACAAAAAGTGG TAAAAGGCCCTTTAATGTTCTGACCTGTTATTGACCTGACC CACCGATGACCCATTAAAATGTAACCAGACTCTTGACCCGT CGGGTCAACCCACCCTGTTAAACTCCTTATTCTAATTGCAC ACAAAATCTTTGGGAGATGTTTTGATATCACACCTCAAAAA AACTCGGAAAACTCCTATTAATTCCTACGATAAACATACA TCCTCGATGCCATGTATATTTTTCGATATCTACTTGTTTTCT ATTGACATTTTGCTACGGAGAAGTGACGTTTTAGATTGAAC GCAGGTGGATCCATCGAGTCGAGAAGAACTAGTCGAGGA ACTCCGAAAAGTGCTCACTTGATTTGCAACCGTTGATGGT CAAGTGAAACCTTCTTGGTTTCATCATGGTAGAAAATATTA TTAGGCAAATCTATAATTCTAGTTACATCCATTGTTTTAGAC AATAGTATTGAACTAATTTATTTAATTAAATTGTATAAATAG GAGACCTTGAATTCATTTGAATTAAGTGGCTTATGCTTGCA TTATTTTGATTGAATCAAATAATTATTTACATACTTTTGATT ATTAATAATGGTAAATCCTCAAAATTTGAGGGATTTGTTCC TACAATGAAATCAAGGACAAAATGTATAGTTTGAGGGAAT GGTGCTTGTAACCTGTCTAAACAATAACAGGTGCTCTCTT GAGAGACCGTCTTATGTAAAGACGACTCTCAAAAGTTCAG CCCAAATCTA
14	Amaranthus palmeri	gDNA Contig	9312	ATAGCTCCACCAGAAACGGTGAAGAAGCTTGAGCAAGCA GCTAGAAGATTGGCTTTATGTGTGGGTTATGTTGGCGCAG CTACAGTTGAATATTTATACAGCATGGAAACAGGCGAGTT CCATTTCCTTGAGTTGAATCCTCGGTTACAGGTATGGAGCT TCCCCAATTCTTTAAGTACCCATTATGTAAGTGCATATTT ATGTAATCCCTCCATTCCAAATTAGTCGCTATGTATTCCTAT GGGGATGTCCCAAATTAGTTGCAACGTTTCTGTAATATGGT AAAGTTTTCCCCTCCAAACCTTAAACCTAGTTGACCATAAT CTAACTAAACCAATTCTCGACCCACTTTGAAAAACAGGTC AAATGTTGGTGTGTTGAACCACCTTTGAAGAAATTTAAGATT TTGGGTTGGTAATGCTTATTAGAGATTTGGGTTTGTGGCAT CGGCATTATTTTGGTGTGATTTGCAAATGATATCCCGGGA TTTCGAACTAGGAGGGGATTCAATTGGTTTTTGAAGGAATTT ATGTAATTATTCCTTTAATTAGTGATCATTGAATTGATTGTA TTTGTGTTGGGGAATTGGACCCGTGAAGAAAAAAATGACG GGTTAGCTTTTGGATTAGTGAGTGATTATGTGAGTTTAATT TGTCTATGAATGGTCAATTTCAAGCAACATTTTCTGTTTTAG CTTAGTAATTTTTGGGATGCGATTGAACATTTGAGCACCTT CTGGATTATTAACAGAAATGATCATCGAAATTGATTTTTTT AGTTGTTGACAGTAGAATAGTAACAGATAAGGTAGAATAA TACAGTATAATCTTTAGTTGCGACAATTTCCAACGTTTTTAT

				AATAGCTAAAGCTACATTCTCATGTTGCTTGATGAAAGTGA CTGTATTTATTCCGTGTGCTTATACAGGTGGAGCATCCTGT TACTGAGTGGATTGCCGAGGTAAATCTTCCAGCTGCTCAA GTTGCAGTTGGCATGGGTATCCCACTTTGGCAAATTCCTGG TAAATGTCCAGTACTCTTTTTTCGGTTATGTAACCTATATAT TATATCTAATTCTTATTTACGAACCGAATTGATCACACATTT TTAAAACAGAAATCCGTGCGTTCTATGGGAAGGAACATGG TGGGGGTTATGATACTTGGATGAGGACATCTGCTTTGGCT ACTGCTTTTGATTTTAACGAGGCACAGTCGGTGAAACCTAA AGGTCATTGTATTGCTGCGCGTGTGACAAGTGAGGATCCC GATGACGGTTTTAAGCCTACAAGCGGGAAAGTACAGGTTA GACCATCCTGGTTTTGTCGATTTACTTCCACAATTGGTCTTG TTTTATTTTGCCTTTGCGGCGAAGAATTTTCTTTAATGGGT GCTTTGTTTAGGAGCTGAGTTTTAAAAGTAAACCGAATGT GTGGGCCTACTTCTCTGTTAAGGTATTTTCCATATTTCTTTA ATTCTTTGATTTTCGCGTTAACAATTTCAAGTTCACTCCATTA TGGGTTTGATGATGATAAACACTTTTATTTGCAGTCTGGGG GAGGCATTCATGAGTTCTCGGATTCTCAATTTGGTAAGTTA ATGGTGCAAACCTCTGTGAGTAATGTAACTCCAGTTTCAC ATGATTTGCTAGTCTTTTTGTGATTTGCGAATCAAAAAGA GAATTATTGTCGGTTTTGGGCTATTTTTTATTCCATTTGGAG CCAATGGACATTCAAAAAGCAAATAGCTAGCGAATTTTGT GATATTCTGGAGGTGTATATTGATGAGAATTTTACAATAAA TTGCTGCTGCTGCACTGTGCTATATTTTGAAACACTGAAT GACTTTCAATTGTTTGTAAGTTTGCATATTCGAGTCACAA CATGATGTCATAATGAAATGCGAGCGGTTTTTATTAATAA TAGAGCCGTAGTGTA AAAACAAGGCCGCATTGCATCGTGT TGGCTGCATTGTAAAGGTTTTCAAAAACAATGAACTGATAT TTCCACGTTGTAAAGGCATAAAACATTGCGTTTAGGGAA ATATCAAAGAATATCTTAAGGTTTCAACCGATATTTAGGTG GTGCAATGACCGCATTACTCCCGTTACCGCATTACCGTTCC TTGCTGCGATCACGATCGTTACCGCATTTTTTACACTATGAA TAGACCTTCAGTTCATATTTTATGATGGCTAAAATCAATTAC TTGGTTAAAGGTATATACGAAGGCTAACAAAAGCATTCTT TACAGGCCATGTTTTTGCATTTGGTGAAAACCGAGGTTTGG CCATAGCAAATATGATTCTTGGATTAAAAGAAATTCAAATT CGTGGAGAAATTCGAACTAATGTTGATTACACCATCGATCT TTAAATGTGAGTTTGAATGTAATTCTTGTTGTCTTTTTTTA GTTTTCGCCTTTCTTCTGTAAACCTTTGAAGTTCTCACACTT AACTTTTTTTTCTCCAGTGTTTGGATTATAGAGAAAACCA AATTCATACAGGTTGGTTGGATAGTAGAATTGCGATGAGG GTCAGAGCTGAAAGGCCACCTTGGTACATCTCTGTTGTGG GAGGAGGGCTTTACGTATGTACAACTTTTTTACAGCTATCA TTAATTTTTCCGTTGTTATGATCTGTGTTACTTGGACTCGGG TTGTTGGATACTGGTATGTGTCCACGTGTCGGATACGTCTA AATATTCAATTTTACGCCTAAAATGAAGTATCTAAGTGCCA TGTCGAGCATCAAGGATCGGACACGGGTACGTGAAGCCA AATGAAGAGTCCGAGTAACATAAGTTATGATTAATGTAA
--	--	--	--	---

				ATAACTTGTTTTCTTTATCCTCTATATCCAGAAAGCATCGAC TAGTAGTGCAGCGACTGTTTCAGAGTATATAGGCTATCTTG AAAAAGGTCAAATTCCTCCGAAGGTATGTAACATACAATT GGTGGCGGGTGTTTAGATTAAGTTATTCTATTAATATCAA TTATACTTTCAGTGTTCTGCTTTAATTCTGGTTTCATGATTG CAGCATATATCACTCGTCCACTATGAAGTTGCTCTAAATAT CGAGGGGATGAAATATAACCGTATGTTCCATGCCATTTCGTA CTTTCCTCGTGAATTTTTGTTATGGATGCTATTTTTGACATT TTCTTTCTAAATATATTTTTCTTGAAATTAATGAACATGTCGT TTCGGATTGCCAGATTGAGATGATTAGGGGTGGACCAGGA AGCTACAAAATGTGGTTGAATGGGTCCGTAGTTGAGGCGG AAATACATACTTTAAGAGATGGGGGTCTCTTGATGCAGGT ATCAAATGTTTTTTGATATTTTTTTTTCTGATACGGTATTT ATATTTTATATCCAAAGCATGGTGATAATACCCTGGATTTG TAAAGCATTAGATAATGTGTTATCAAACAAGTAGAATGTA GTTTTGTGAAATCGTGAAGCGTTTAGTTAGATTTAAATTT TAATACTCCTACAATGCTTGGGATATTAATCAATAATCATG CTTCAAATAGTAAAGAGAAATATTGTCATAGACTCATAGGT ATAATGGCTCGTTAAATCATATGCACTTCTTGTTTATGTGA AGTCCGAGTTGGTGTTTGCAATCAACGTTTGAAATCAAGG GCATAGTGCTAAATCTCGAATGTGGTCACTTTTGTTGGTCAA TGATAGATGGTTTCATTTCTATCGTGGTATAAATATGGGTCG CAGTAATCTTAAGAACCTATATAGTAGACGATAACTTGTTA TAAAAGGGTAAAGGCTGCATACATCCGATGTCCCATTTAC CCGTCTAGATGTGAGCTACTTGGGGTTATTGTTATTGAAG TTAAAGATACAAGAGGGATTACTGTTTGAAAAAACGGAAT ATTTGAACTACAAAAAAGTAATTAGTTTAGGTACTAGTTC GTTCTAGCCCATATAACACATTTTAAAAAATATATGAAAA AGGGCTTTCAATGTCATGAACGGAAGGGAGCAAATGGAC AGTGGAAGAGTCAACAAAGATTACATATGATTTATGAATT CTCTTTCGTTGTTTAAAAAACTTTGAAATTGAAAATTGTTG GCTTTTTGTTGAAGAAACGATGTGTGTCAGTTGAAATCAG AATATTTAACTACAAAAAAGCTATTAGTTTATACACAAT ACACTTGTTGTTTAAACCCATATAGTACATTTAAATAATTA TTTGAAAAGGGCTGTTAATGTGTGAAAACTTTCGATATGTT GATCTGATTGGATATGTGTCATACCTTGAAACGTCATGCAG TTGGACGGAAACAGCCATGTGATATATGCCGAGGAAGAA GCTGCAGGAACCTCGCCTTCTGATTGATGGAAGAAGCTGTTT GCTTCAGGTAATGCCGTGTGATTCTCTTTTTTTTTTTTTTG TGAATTCTAAACCTTAAAAATCATTCTCCACCAAAGCTGTTT ATTTTTTCATATAGAACGATCACGATCCTTCAAAGCTGATT GCGGAGACACCGTGTAAGCTTATGCGGTATTTGGTACCAG ATAACAGTCACATAGATGCAGATACTCCGTATGCTGAAGTT GAGGTCATGAAGATGTGTATGCCTTTGCTTTCCCGAGCATC CGGTGTTTTACAATTTAAGATGTCCGAAGGTCAAGCTATGC AGGTATGCATCATTTTAATCGTAAATTCAGCAACCTCGTTT ATATTGGATTCTAAATATGGTCTTGCTGTGTAGGCTGGTGA ACTCATAGCTAGTCTAGAGTTGGATGATCCTTCAGCTGTAA
--	--	--	--	--

				GAAAAGCCGAACCTTTTCAGTGGAAGCTTTCCTGTCATGGG CTCACCAACTGCAATATCTGGAAAAGTTCATCAGAGGTGT GCCGCAAGTTTAAATGCCGCTCGGATGATTTTGGCTGGTTA TGAACACAATATAGATGAAGTAAGTTTCAAACCACCATTTT ATTTTTCATCAACATAGTTTTTAGGCTAGCCTCTTAATGGGT TGATGCCATAGTGTA AAAACAAGGCCACATCGCATCACGT CACCGCGTTGTAAAGGATTTCAAAAACAACGAACCGATAT TTCCACATTGTGGGCTGTATCAAGGGATATTTTATGGTTT TGACCGGTATTTAGGCGTTACAATAACCGCATCACTCCCGT TACCGCATCATTGTTCTGTTACCGTGATCATGACCGTTACC GCATTTTACACTATGGATGCCGAACCTTGAGATGCATTTT CCATTTTCAATAGAGCCCCTAGTTTTTTCTTCCTGTTTGG AAATTTTACATGTGAGCCTTTATTTTCTCAGGTAGTACA GAGTTTGCTGGAATGCCTTGATAGTCCCGAACTTCCATTCC TTCAATGGCAAGAATGCTTGTCTGTGCTGGCAACACGACTC CCCAAAGATCTGAGATACGAAGTGTGTATTCTATCATCTGT TCTTGATTTAGTTATTTATATTTCTTATAATAATTTTGAAC TTTTCTCGGAATTTACAGTTGGAATCAAATCTAGAGCTT TTGAAGCGATTACCAACACCCCAAACATAGAATTTCTGCT AAGTTGTTGAAAAGTATTCTTGAGGTTAGTACCTCACTTTG TTACCTTCTGTAAATTATCACTCGGCGAGTTACTCATGTTA GTAACAAGTTTATTCTTCATAGGACCATTTAAACTCATGCC AAGAGAAAGATAAAGGAGCTCAAGAGAGGCTTATTGAGC CTCTTATGGTTCTTGTAAGTCTTACGAAGGTGGGCGAGA AAGTCATGCTCGTTTTATTGTTCAATCTTTATTTGAAGAGTA TTTATCCGTTGAAGAATTGTTTAGCGACAATCTCCAGGTTT GTCCATCTATCTAGAGCAATTTGATTATGATGTTTTTTAAA GTTCATAAATTTAGCTTGGTGCCACACCGTCAGTGGCTGA TGATCGTCGCTTTGTGATCATTAAAGCTTTTAAAAGCTGTCTC CTGTTCTCCATCACTATTTTAGAAATTTTGAGTTCTGATGT ATATACTCGGTACCTGAGGGACTCTTGGCCGCTTCTTCTT TATGGGTATGAATTGCCTCCTTCCCTCCCTCCCAGATCCTG ATCATAGTTTCTATGAGCGGGATACATTGGGTATGATGAT GATTATTATTATTATTCGCTATTTGAACAATTTTCTTATG TTATTTAACTCCTTTTTGTTTTGGCAACCGCTTCTCAGCCT TATCTTGTCAAGGGAAGTGTCAGGATGCTGTGGCACAGAT CAGGTTTCATAGCTTTATGGGAATTTGTTGAGGAGAATATT GACCGAACAATTTTCTGATGATCTGACTACAAACAGTGG GAACCATAGTGAGCGAAAGTGGGGGGCCATGGTCGTTAT TAAACTCTTCAGTTCTTGCCATCGGTGATTGCTGCAGCAT TGAGAGAAACAACCTCATAGTTCCGATCAATCAACTTCCACT GGCTCTATAGAATCAGTCATCCATGGAAATATGCTGCACAT TGCACTAGTGGGGGTGAACAACCAGATGAGCTTGTTGCAG GATAGGTATATAAGACTAGCCTGTAACATATGGTGTAATA ATCTTTATTATGTAACTTGTGCTTCTAATGTCCTTTATTTCT ATGGACTATATTGAAGTACACTTCTTGTTTCATGTGATGTTG ATGTTGATAATTGCTACCGGGTCAATCGAAAACAACCTCTT TGTTATCACTTGAGGTGTTCAAATAGACCCGATGACTCGA
--	--	--	--	--

				TATTCATCAGATCTTGTAACCTGAACTCGACTTCAAAATGAA TTTAAAATTATATAAAAAATCAATATGGACACAAGACCGGAT ATCAATCCGACCCGAAATAGTTGACTCGAAATCAACTTGAT GATCCGAATGAACACCTCTAGTTATCACTAACAAGGGTCA GATTGCGTACATCAAACCCCTCAAATCCTGCTTAGGTGGGA GCTTGTCAATGGCTTAGGGGTAAACGGGAATGTGTGTGCTA TGTACATTGTGCATCTATTCTTATACTTATGTTGAGTTTTT GGATCAAATATAAAGAACTTAACTTTTGTATTTTCTTGATGT GGTGTAGTGGTGATGAAGATCAGGCTCAAGAGAGAATCC ATAAATTGGCCAAAATTCTGAGAGAGCAAGAAGTGAGTTC AGCCCTTCGTGCTGCTGGTGTGGTGTGATTAGTTGCATCA TACAGAGAGATGAAGGGCGAACTCCGATGAGGCATTCATT CTATTGGTCAGCAGAAAAACAATATTATAGTGAGGAGCCT TACTACGTCATTTGGAACCCCTCTATCTATGTATCTCGAG CTGGTACTAGTCTCTGAACCGATTGCCTTTCTTCTGCTTGT TATTCTGTGTGATATTTGACTTAAGTCTAATTTACATCGTT TTGTACATTTGTTATCCAAAGCACGTTAAAAGATACTTCCTT CGTTTTTTTACAAGCACCCAAACACCTTTTTACGCAGCCCAA TTGGTTTGTGCGGTTGCTTATATATAGAATTATACTCAACTT AAAAATTATAAAATTTGATATTATGAAAGTATTCGACGTGA CGAATTAAACAAAATCCCATATGACTATGTTTTTTCTCGTT TGATAGCNNNAATATGTAAAATACTATCGAATGATGAATA GTGTAAAACTGGTTTGGGTGCAACTAAAAAATGGAGGA AGTATAATTATGCAGCCAAAATTGATGGCTTTTAACTTTTC ATCAAATCAGGACAAGCTTAAGGGTTATGAAGATATCAAA TATACTCCTTCCCGTGATCGTCAATGGCATCTTTACACAGTT ATTGATAAACCATTTCATTCCGAGGATGTTTTTGAGAACCTT TGTAAGACAACCCATCTCTGAGTTCACAGGCGTCGAACTAA GCGCTCTTGAAACACAAAAGCCTATCTCTTTCACTTCAAGA AGCATCCTAAGGTCCTTAACAACCGCCATGGAGGAGTTGG AGCTCAATGCACATAGTGCTTCACTGAAACCCGATCACGCT CATATGTACTTGTACATTGTCCGAGAGCAACAAATATACGA TCTTGTGCCATATCACAGGTATCTATTGCTGCGTGCCTCAA CTTTTTTTGTTTATTATTGGTCATTAGTACACCTTATTCTTAG AAGAACTTTTTTCGGCCAATTATTTCCAGGGAGGTGAACA TAGATCACCAACAAGAAGAGGCTTCAGTTCAATTCTTTTTG GAAGATCTCGCGCATGAAATCCATAGTCTTGCTGGTGTAA GGATGCATAAACTAAATGTTTGTGAGTGGGAAGTGAACT TCGGGTATCATCTCCCGGGAAAGCTAATGGTTTATGGAGG GTGGCAGTTACTAATGTGACTGGTCATACCTGTTCCGTACA TGTAAGTCATAATTTTGAGAACCTCTTTTTTGATCAAGTCAC AATTTTAATTTTCACAAATTCTTGTATGAGACGGTCTCACC GTGAGAAGCGCCCCATACTTGGATTAAATAGCCGAATAAA AGAACTTTTAGCATAATGGACCTTTTGTATGGACTCGTCT CATGGTGAGAAGGTCTCATACAATAGGGGCAATTAATTTT TAGCTTCTTATCTGTAAATTTTGCATAGTACATAGTTTTGAA TTTTGAGAGGTTGAGTCTATGTGACAACGAATATTTAATTG AGTATAATGTTGTTTAAATCCAAATATGATATAAAAGGGTGT
--	--	--	--	--

				GGCATAAGTGATTGAGCATTCTTTTTCTTTTCAATGGGAA GTTAAAGGTCTAAACCTTGGTATAATTTCTTCAATGATGA GCAATCAAAGGGATTCTAACCTGTTTATTTATGACTCGAAA GTCGAACCCAAACCAGAACCCGAACCCGACTCAACTTGATT TTTTTGACATGCCTAAATGGAACCTACAGATGTATTGGGGA AAATAATTAACTAGAAAATGGGGAAAATAATTAACTAG AAAATGGGGAAAACAATTTACCTAGAATATGTTTTTCAGCCA AAACAAACACTCCCAAATACATTTCTTAGCATCCACAAATG CCGAGGAATTGCAATGGAACCTCCAGTTCCTCGGTTCAACTT AGAGAAGTATATAATTCTTTTTTGACGATATCATTATGGT TAATTGACCTGTTTTTCTATGAAATATAATTTAATTTTTAT GCTCTCTAGTTTGTTTTACTACACATGAATAGTTTTGGTTTA GAGTGATCATTTTCTTACAATATTGATGCCCAGGTTTATCG TGAATTGGAAGATAGCAACCTACATGAAATGGTCTACCATT CAGTAT
15	Amaranthus palmeri	gDNA Contig	5302	AACCTTGTGCTTCTAATGTCCTTTATTTCTATGGACTATATT AGAGTACACTTCTTGTTTCATGTGATGTTGATGTTGATAATT GCTACCTGGTCAATCACAAACAACCTCTTGTTATCACTTG AGGTGTTCAAATAGACCCGATGACTCGATATTCATCAGAT CTTGTAACCTGAACTCGACTTCAAATGAATTTAAAATTATA TAAAAATCAATATGGACACAAGACCGGATATCAATCCGAC CCGAAATAGTTGACTCGAAATCAACTTGATGATCCGAATG AACACCTCTAGTTATCACTTACAAGGGTCAGATTGCGTACA TCAAACCCCTCAAATCCTGCTTAGGTGGGAGCAGTGTCACA TGATTCGCTAGTTAATTCGCATGTCTCGATTGAGATTTCGC TCAAATGGACCAAAAATGGCCCAAAAACGACCAAAATTC GCTTTTTTCAATTCGCGATTGCGCAGAGAGATTAAACGAATTA TGTGACAGTGGGTGGGAGCTTGTCATGGCTTAGGGGTA ACGGAATTGTGTGTGCTATGTATATTGTGCATCTATTCTTAT ACGTATGTTGAGTTTTTTGGATCAAATATAAAGAGCTTATC TTTTGTATTTTCTTGATGTGGTGTAGTGGTGATGAAGATCA GGCTCAAGAGAGAATCGATAAATTGGCCAAAATTCTGAGA GAACAAGAAGTGAGTTCAGCCCTTCGTGCTGCTGGTGTTG GTGTGATAAGTTGCATCATAAGAGAGATGAAGGGCGAA CTCCGATGAGGCATTCTTCTATTGGTCAGCAGAAAAACAA TATTATAGTGAGGAGCCTTTACTACGTCATTTGGAACCCCC TCTATCTATGTATCTCGAGCTGGTACTAGTCTCTGAACCGA TTGCCTTTCTTCTGCTTTGTTATTTTGTGTGATATTTGACTT AAGTCTAATTTACATCGTTTTGTACATTTGTTATCCAAAGCA CGTTAAAAGATACTTCCTTCGTTTTTTTACAAGCACCCAAAC ACCTTTTTACGCAGTCCAATTGGTTTGTGCGGTTGCTTATAT ATAGAATTTTACTCAACTTAAAATTATAAAATTTGATATTAT GAAAGTATTCGACGAGACGAATAAAACAAAATCCCATATG ACTGTTTTTTCTCGTTTAATAGCTGTAATATGTAAAATACT ATCGAATGATGAATAGTGTAATAAACTGGTTTGGGTGCAAC TAAAAAATGGAGGAAGTATAATTATGCAGCCAAAACCTGA TGGCTTCTAACTTTTCATCAACTCAGGACAAGCTTAAGGGT TATGAAGATATCAAATATACTCCTTCCCGTGATCGTCAATG

				GCATCTTTACACGGTTATTGATAAACCATTTCATTTCGGAGGA TGTTTTTGAGAACCTTGTAAGACAACCCATCTCTGAGTTC ACAGGCGTCGAACTAAGCGCTCTTGAAACACAAAAGCCTA TCTCTTTCACCTCAAGAAGCATCCTAAGGTCCTTAACAACC GCCATGGAGGAGTTGGAGCTCAATGCACATAGTGCTTCAC TGAAACCCGATCACGCTCATATGTACTTGTACATTGTCCGA GAGCAACAAATATACGATCTTGTGCCATATCACAGGTATCT ATTGCTGCGTGCCTCATTTTTTTTTGTTTATTATTGGTCATTA GTACACCTTATTCTTAGAAGAACTTTTTTCGGCCAATTATT TCCAGGGAGGTGAACATAGATCACCAACAAGAAGAGGCTT CGGTTCAATTCTTTTTGGAAGATCTCGCGCATGAAATCCAT AGTCTTGCTGGTGTAAGGATGCATAAACTAAATGTTTGTG AGTGGGAAGTGAACTTCGGGTATCATCTCCCGGGAAAGC TAATGGTTTATGGAGGGTGGCAGTTACTAATGTGACTGGT CATACCTGTTTCGGTACATGTAAGTCATAGTTTTGAGAACCT CTTTTTGATCTAGTCACAATTTTGATTTTTCACAAATTCTTG TATGAGACGGTCTCACCGTGAGAATCACCCATACTTGAT TAAATAGCCGAATAATAGAACTTTTAGCATAATGGACCTT TTGTATGAACTCGTCTCACGGAGAGAAGGTCTCATACAATA GGGGCAATTAATTTTAGCTTTTATCGGTAAATTTGCATA GTACATAGTTTTGAATTTGAGAGGTTGAGTCTACGTGACA ACGAATATTTAAGTGAGTATAATGTTGTTAATCCAAATAT GATATAAAAGGGTGTGGCATATGTGATTGAGCATTCTTTTT TCTTTCTATGGGAAGTTAAAGGTCTAAACCTTGGTATAAT TTCCTTCAATGATGAGCAATCAAAGGGTTTCAGACCTGTTT ATTTATGACTCGAACCTGAACCCGACTCTACTTGATTTTTT GACATGCCTAAATGGAACCTACAGATTTATTGGGGAAAATA ATTAACTAGAAAATGGGGAAAACAATTTACCTAGAATGC GTTTTCCGCCAAAACAAACACTCCCAAATACATTTCTTAGC ATCCACAAATGCCGAGGAATTGCAACGGAACCTACCGATCC TCGGTTCTTCAACGTAGAGACGTATATAATTCTTTTTTGCAC GATATCATTAAAGGTTAATTGACCTGTTTTTCTATGAAATAT AATTTAATTTTTATGCTCTTTAGTTTGTTTTACTACACATGA ATAGTTTTGGTTTTGAGTGATCATTTTCTTACATTATTGATG CCCAGGTTTATCGTGAATTGGAAGATAGCAACCTTCATGAA ATGGTCTACCATTCAAGTATCTGTTACGGCCCCCACCATGG GGTACCTGTGAATGCACCCTATCAACCACTCGGTGGCATC GCCCCTAAGCGACTTCAGGCCATGAAAAGTAGCACAACCTT ACTGTTACGATTTTCCACTGGTACGGAATTTGAAAATTTCA TCACTCCCTCCCCCGTCTTCCCCTTAATATACTTTGTCGCCC GTTATTTCATATTCCGTTTTATCAACCATGCAAGGATCTTCC AGGGTTCCGAATTTCATTTTTTCGTAATTCCAAAGTTTCAGG CAAACCTACTTTTTTTGACGCTGTTGTTTTCAGGCTTTCTCA ACTGCCCTGAAGCAATCATGGGCATCGGAAGCTCCGGATG TCAAGAAACCCTCGGACAAAGCGCTTTTGAAAGTAACGGA GTTAGCGTTTGCTGATCCAAAAGGCACATGGGGAACTCCG CTTGTTCCAATAAATCGCAAGCCTGGTATGAACGATGTTGG CATGGTAGCCTGGTACATGGAAATGTCCACCCCCGAGTTC
--	--	--	--	---

				CCTAATGGAAGAACAATAATGGTTGTAGCTAATGATGTTA CCTTCAAGGCCGGATCTTTTGGACCACGAGAAGATGCTTTC TTCCTTGCTGTTACAAATCTTGCTTGCGCGAAGAACTTCCT CTTATTTATCTGGCTGCCAATTCAGGAGCTCGACTTGGTGT TGCCGAAGAGCTAAAATCCTGCTTTAAAGTTGGCTGGTCG GATGAGTCAAATCCCGAGAGTGGATTTCAGTATGTCTACTT AACCCCTGAAGATTACGATCGTATAGGATCGTCAGTCATA GCCCACGAGTTAAACTCGAAAGTGGAGAAAAAAGATGG GTTATAGATAACGTTGTAGGTAAGGAGGACGGATTAGGTG TTGAGAACCTATCGGGAAGTGGTGCTATAGCCAGTGCATA CTCAAGGGCTTACAAGGAAACATTTACTCTGACTTTTGTA CCGGAAGAACGGTCGGTATTGGTGCCTATCTTGCTCGTCTT GGGATGCGTTGTATACAGAGGCTTGACCAGCCTATAATTC TCACGGGTTTTTCTGCGTTAAATAAACTTCTCGGTCGGGAG GTTTATAGTTCACACATGCAACTTGGTGGACCGAAGATTAT GGGCACAAACGGGGTAGTTCATCTTACAGTATCCGATGAT CTTGAAGGCATTTTCATCTATCTTGAAGTGGCTGAGCTACGT TCCACCCTATTCAGGTGGTGAACCTCCGATTTCTCGGTGTTT AGACCCTCCAGGAAGACCGGTTGCGTATTTGCCTGAAAAT TCTTGTGATCCTCGTGGTGCTATATCTGGTACGGTTGACTC CACCGGTAAATGGTTTGGGGGTATTTTCGACAAGGATAGT TTTGTGGAAACCTTAGAAGGATGGGCACAAACAGTTGTCA CGGGAAGGGCTAAACTCGGAGGAATTCCAGTTGGCATAG TTGCCGTTGAGACGCAGACTGTTATGCAAGTAATCCCAGC AGATCCCGGTCAACTCGACTCACACGAGAGAGTCGTACCA CAAGCAGGGCAAGTATGGTTCCCAGATTCTGCATCCAAGA CAGCACAAGCGCTGATGGATTTCAACCGGGAAGAACTCCC ACTTTTCATTTTAGCTAATTGGAGAGGTTTCTCGGGTGGAC AAAGGGATCTCTTTGAAGGGATCCTTCAGGCCGGATCCAC CATAGTTGAAAATCTTAGGACTTATAATCAACCCGTTTTTG TTTATATCCCTATGATGGGGGAGCTTCGAGGAGGCGCATG GGTGGTCGTCGATAGTCGAATTAATTCCGACCATATAGAA ATGTACGCCGACCAAACAGCTAAAGGAAATGTGCTTGAAC CGGAAGGAATGATTGAGATTAAGTTCCGAACCAAGGAACT TCTCGAGTGTATGGGAAGGCTTGATCAACAACTCATCGGT CTCAAGGAAAACTAGCCGAAGCCAAGAGCTCTAATTCCT ACAATAAAATCGAGCCCCTGCAGCAACAAATAAAAGCCCG TGAGAAGCAACTATTGCCTCTATATACTCAAATAGCCACCA AATTTGCCGAGTTGCACGATACGTCTTTAAGGATGGCTGCC AAAGGAGTCATTAGGGACGTCTTGGAATGGAAAAGCTCGC GTTGTTCTTTTACAAAAGATTATACAGGAGAGTTATGGAG GAATCGCTCGTCAAGACTGTTTCGAGATGCTGCAGGTGAAC GGTTGACCCATAAGTCGGCTTTGGAGTTGATCCAAAAATG GTTCAATGAGTCGAATATTTCCGGAGAGGCTTCCGATGCTT GGGCTGATGATGCGGCCTTCTTTAAGTGGAAGGACAATAC CGCCAACTACGAGGAGAAGTTGAAAGAGTTGCGCGTTCAG AAGGTATTGGATCAGCTGTCGAATATTGGAGATTCCGGCAA CTAATTTGAGGGGCTCTGCCTCAGGGTCTTGCTGCCCTACTT
--	--	--	--	---

				CAAAAGGTAATCTGATTTATTTTATGTACATTCTTTGTTCTT TCTC
16	Amaranthus palmeri	gDNA Contig	1693	AAATCATTCCCATTACCGCCATTTAGTACCACTAACCAAAC GGGACGGTAAAGTTTTGCTTACTACAATATCTTCTTAGCTC ATAAGCTCAGAACCTTACTTGAATTTTGACAATGTGTGTCT AGCTATACTTTCAATAAGTATTTAAGAATTCATTTTCTTTT ATCTATGTAAAGTTGCATATGATGTTTGTTATAAAGGGTCA ATCAAAAACTATCTCTTTGTTATTAGTAACAAGGGTAACT GGGTAAGGTTATGTACATCCAATCCCTCCAAACCTTTTTG GGTGGGAGCTACTTAATGGCGCTGGGACAATGGAAGTTTT TGTTTGTCGAATTCAAGCGGGGAAGTTTGTTTAGAATGAA TGTTATTTCTAAAAATAGATGGTATAAGTATGTTAATCAAC AATTAATAATAGAGAACTGTTTTATTGGTGTGATAAACAGT TTCAGGAGCAGTGGTCTCATTTTCGAGCAATACAAAAAGT GCCGTGCTTCTCTAAACAACGACGATTCAGACATGTCTTCT CCTTCCCACAATAATGAAAACCCGAACGGACCGATGATGC CACTCCTGAGGAATTCATCTGTAGTATCCATTGTTGATAAG TTCTGTTATGCTCTTGGAGGGACGCGGCCAATCCATAGTAT TTTGATAGCAAACAATGGGATGGCTGCTGTCAAATTTATAA GAAGTATCCGAACATGGGCTTACGAGACTTTTGGTACTGA GAAGGCTATATTATTGGTAGCCATGGCTACTCCCGAAGAC ATGAAAATCAATGCCGAGCATATTCGAATGGCTGATCAGT TTGTTGAAGTCCCCGGAGGAACTAACAACAATAACTACGC CAATGTGCAGCTCATTGTTGAGGTAATGTATCTTGAGATTA GAAATTTCTAGCCTGTCATCCATAGTTACATGGAATGTGGA ACATAGCCACGTTCCGCGATTCGGGAACATTCATTCCCAAT CACCATGAAACCCGACCTAAATCGCTAAAGGTGACGTCCC GGTGTAGAACACCTTTTTTTTAAAATGTATTTTGGCCTTCA TTACAAATTGAAGAAAGGAGGAAAAACAAGATGTAACC CAGAAACCTAAACAATCCACTTGAAAATAATTTCTTAAAG CAAATTAATCATTTTAGTTTAATTTTGTTTCAAATATATATT TATACATAATGTATCTCATACCCAATCGTTCTTGAGTAAATC TAGGTTGCGTTCTGTGTTCCCATTCCTGTTTCCTGTTGAAA CCAAATGTCGTTCAAGTAACAATGCTGTTATCTGCTTTACTG TGATTTATTAAATGTGTCCTTCGAAAAAAGGCAATATCAGA GCGACTTGATGCAGTATGGCCTGGCCGGGGACATGCGTA GTTTGTTATATGAGATTGCAAATTTATAGCCTTTTATATGGT AAAATCTTGTGGTAGGACTAACTTAAATCCTTTTTCTTTCAG TTAGCGGAAGTTACACGAGTTGACGCAGTTTGGCCTGGTT GGGGACATGCATCGGAGATCCCCGAGTTGCCAGATTCATT AGCTACGAAGGGAATTGTGTTTCTGGGCCCCCAGCTGCA TCTATGGCTGCTCTTGGAGATAAAATTGGTTCATCATTGAT TGCACAAGCTGCAGATGTCCCAACTCTCCATGGAGTGGTT CTCATGTACGTACTACAC
17	Amaranthus palmeri	gDNA Contig	1457	GGAGACATCTTGTGCCTCTAACCAAACCAAACCAACCTCCT TAAACTTCTCTTCTTCTACTCACCATTTTTTCTCTTTTATTG ATTATTGATTATTCATTTTAAATATACATTATATTGTAGGAA TTTAATGAAATTTTCATTAATTCTGATAAAGTTTTGATTTT

				TTTTAGTGTATGAGATTTTTCTTAAGTACCCAAATGGTAAA TTTCAAGTATAATCAAGTTTTTTAGTACCCAAAGCTCTAAAT GTTACTTAAAGTTTTGATCTTTTAATGGTTTCTTCTATTTAAT CCAATAATTTAAAGTACCCAGATTTCAATTTTTAGAATAAAT TGAGTTTTTGAATTGCCCAAGTTGTAATTGTTGCTGAATTCT CTTGCTTTGATTTGGGTTTTCTGATTCTATCCCTTCTGATTC ATACAGGTATTCTGATTTTTCTTGCTTGATTACTTTTTGTTA GTGTATGGTTGAGCTAATTTAGTTTATAGTAGTGTGAATTT TATTTTATTTTTTTCAATTTTTCAATTATTTCAATTTGTAG AGTAGATTCTCCTATTATGATTTGTTTTGTAGCTGGGTTTT AATTTTATTGTCTGATGATTTATCTTAGCAATGTTTTATTG AAGTGTATTTTAGTTGATTCCATTTTTCCAATAGAGTGTACA AAATCGACCTGATTAAGTAACTGAACTGAGTATTATCCAACGG GAACAATCACTGTTACAAAATTCAAATTAGAATGTCAAGTA CCGAAATCAACCCGACCCACATATTATACCCGAGATCCAC CCGAACACCCGAATGAACACCTCTGAGATCATAGAGAGGA TATAAGAAAAGTGAACTAGAATGGGGAATTTAGTTTATT TAAGCTACATTGAGCAAAAATTTTTTAGTGACTGATTATT GTAGCTGGCTTTTGTGTATAACTCATCTAAGCAATGTTTT GATGTGTGTGCAGTAGCATTGGATTGTTTTGATTTTTTGT TATATTGTCTATAACAATTCAATTCTTGAATCACACTTGACTT TTAGTTCCATTTTCATCTTCACAAATTCTTGTGAGAGACGGT CTCAGTGTTAGACGCTCTCTGTACATGGGCTAAATAGCCCA ACTAATACAATATTAGCATAACGAGCTTCTTATTTTGAAGT CATCTCTCATAAGAGTAGCTCTCTATCTTTCGTTGGGTTAGA TGGTAATAAACGGTAGTAATGAGGATGAAAAACAAGTGTA ATTTTGGTTGGAAAATATGTTGGTTACCTTGATGGTCATGC TTGTCCAACCTAAATCATCTTATTTTCTTCTCAAATTCATT CAATGCATTACCATTAGGAGAGGTGATATTAGGCGGTAAT GAAATTATGTAAACAAAAAACTTTTTTGTGATTGAAGTTT CATTGCTATAGGAACGATATCGATATGGAACTTTTGATGAA ATTT
18	Amaranthus palmeri	gDNA Contig	1175	TTTTTTTTCTTCCAAATTTCTGATCTTTAGAGTTTTAGTGA TAGATTTATATACGTCTCTATCCCTCAGGTGAAAATTCCTGC TGAGAGTTGCCTAGACGTAATCCCGATGAAGTATATAAA GCGGCATGTGTTTTTACTACAGAGGAAGCAATTGCTAGCT GTCAAGTTGTTGGTTATCCGGCTATGATCAAAGCTTCTTGG GGTGGTGGAGGGAAGGGAATAAGAAAGGTAAAATTTTTT TGGATGATGATGCTCTTAAAGACTAAAAGGAGGTTACAC ATATCCCCATTACTTGTTTATCATCAGAGGCGGAGCAAAAA TTGACAAAGATTTAAAGGCTGTGTGCAATTTCAAAAAATAT GATATATTTCTAACAACGTATCTTCAAACACTTTAAACATAC TACCTATTCTAATATTGCGGCCCTATTTTTTTGAGGCCGTG TGTGGTCGAACATATTGAATATGCTTAGAACCCTCCTGTT TATCACTAATATGCCATCTTCCACAATCAAACCTCTACTTTT GACCCAGATTCTTGAAAGGGATTTGATTTAGACTCGAG CTATGGTCAATTATTAGCAATAGCAAAAGCTTCTTAATAGT TAATAGATTCTCAAACACTTCCGTCATGCCAACACTTTATGA

				AGACTCATGGGTATTCTCTCTTTTAGGTTTCATAATGATGAC GAAGTACGGGCATTATTTAAGCAAGTGCAGGGTGAAGTTC CCGGCTCACCCATATTTATAATGAAGGTGGCTTCACAGGTT AGACTTTCTTCAACATTGGTCCGATATTCGAGTAAATTGCA TAAAAAAGGTTAAATATACAATTTTTTTGGATAAGTATTG TATGAGAGACTACTACTAAGATAAAGTATTATTAATATGTG CAGAGTCGACACTTAGAAGTACAGTTACTGTGTGATGAAT ATGGCAATGTTGCAGCATTGCATAGCCGTGATTGCAGTGT CCAAAGGCGGCACCAAAAGGTGGGTCTTTGGTAGATTATG GTTATGATCTACGTTTTCTTATTGTTTAAGAAAAATATTTGA TATTAAGCATTATTTAGCTTGCTGAGATTTGAACTTTTCTGT TCATCATATTAATAATCAGATCATTGAAGAAGGCCCAATA ACGATAGCTCCACCAGAAACGGTGAAGA
19	Amaranthus rudis	cDNA Contig	5038	AAGAACTTGTTTGCTTCAGAACGATCACGATCCTTCAAAGC TGATTGCGGAGACACCGTGTAAGCTTATGCGGTATTTGGT ACCAGATAACAGTCACATAGATGCAGATACTCCGTATGCT GAAGTTGAGGTCATGAAGATGTGTATGCCTTTGCTTTCCCC TGCATCCGGTGTTTTACAATTTAAGATGTCCGAAGGTCAAG CTATGCAGGCTGGTGAACCTCATAGCTAGTCTAGAGTTGGA TGATCCTTCAGCTGTAAGAAAAGCCGAACCTTTCCGTGGAA GCTTTCCTGTGCATGGGCGCACCAACTGCAATATCTGGAAAA GTTTCATCAGAGGTGTGCCGCAAGTTTAAATGCCACTCGGA TGATTTTGGCTGGTTATGAACACAATATAGATGAAGTAGT ACAGAGTTTGCTGGAATGCCTTGATAGTCCCGAACTTCCAT TCCTTCAATGGCAAGAATGCTTGTCTGTGCTGGCAACACGA CTTCCCAAAGATCTGAGATACGAATTGGAATCAAATCTAG AGCTTTTGAAGGGATTACCAACACCCAGAACGTAGAATTTCTGCTAAGTTGTTGAAAAGCATTCTTGAGGACCATTTAAAC TCATGCCACGAGAAAGATAAAGGAGCTCAAGAGAGGCTT ATTGAGCCTCTTATGGCTCTTGTAAGTCTTACGAAGGTGG GCGAGAAAGTCATGCTCGTTTTATTGTTCAATCTTTATTTGA AGAGTATTTATCCGTTGAAGAATTGTTTAGCGACAATCTCC AGGCTGATGTGATTGAACGTCTCCGCCTTCAGTATAAGAA GGATCTGCTGAAGATTGTTGACATTGTACTGTCGCATCAG GGTGTTAAGAATAAAAATAAGCTGATTCTACGACTCATGG AACAGCTGGTTTACCCAAATCCCGCTGCATACAGGGGGGAA ACTTATCCGTTTCTCTCAATTGAACCATAACAATGTATTCTGA GTTGGCACTAAAGGCCAGTCAATTGCTTGAACAAACGAAA TTGAGTGAGCTCCGTTTGAACATTGCTAGAAACCTCTCTGA GCTAGAAATGTTTACCGAGGATGGCGAAAACATGGATACT CCAAAAAGAAAAAGTGCTATTAATGAACGTATGGAGGCGC TTGTGAGTACTCCTCTAGCTGTCGAAGATGCCCTTGTTGGT TTGTTTGATCATAGTGATCATACACTTCAGAGGCGGGTGT TGAGACCTATGTTTCGGAGGCTTTATCAGCCTTATCTTGTCA AGGGAAGTGTCAGGATGCTGTGGCACAGATCAGGCTTCAT AGCTTTATGGGAATTTGTTGAGGAGAATATTGACCGAACG AATTTTTCTGATCTGACTACAAACAGTGGGAACCATAGTGA GCGAAAGTGGGGGGCCATGGTCGTTATTAATAACTCTTCAG

				TTCTTGCCATCGGTAATTGCTGCAGCATTGAGAGAAACAAC TCATAGTTCCGATCAATCAACTTCCACTGGCTCTATAGAAT CAGTCATCCATGGAAATATGCTGCACATTGCACTAGTCGG GGTGAATAACCAGATGAGCTTGTTGCAGGATAGTGGTGAT GAAGATCAGGCTCAAGAGAGAATCGATAAGTTGGCCAAA ATTCTGAGAGAAACAAGAAGTGAGTTCAGCCCTTCGTGCTG TTGGTGTGTTGGTGTGATTAGTTGCATCATAAGAGAGATGA AGGGCGAACTCCGATGAGGCATTCTATTGGTCAGCA GAAAAACAATATTATAGTGAGGAACCTTTACTACGTCATTT GGAACCCCTCTATCTATGTATCTCGAGCTGGACAAGCTTA AGGGTTATGAAGATATCAAATATACTCCTTCCCGTGATCGT CAATGGCATCTTTACACGGTTATTGATAAACCATTTCATTCG GAGGATGTTTTTGAGAACCCTTGTAAGACAACCCATCTCCG AGTTCACTGGCGTCGAACTAAGCGCTCTTGAAACACAAAA GCCTATCTCTTTTACTTCAAGAAGCATCCTAAGGTCATTAAC AACCGCCATGGAGGAGTTGGAGCTCAATGCACATAGTGCT TCACTGAAACCCGATCACGCTCATATGTACTTGTACATTGT CCGAGAGCAACAAATATACGATCTTGTGCCATATAACAGG GAGGTGAACATAGATTACCAACAAGAAGAGGCTTCGGTTC AATTCTTTTTGGAAGATCTCGCGCATGAAATCCATAGTCTT GCTGGTGTAAAGGATGCATAAACTAAATGTTTGTGAGTGGG AAGTGAACTTCGGATATCATCTCCCGGGAAAGCTAATGG TTTATGGAGGGTGGCAGTTACTAATGTGACTGGTCATACCT GTTCCGTACATGTTTATCGTGAATTGGAAGATAGCAACCTA CATGAAATGGTCTACCATTTCAGTATCTGTTACGGCCCCCA CCATGGGGTACCTGTGAATGCACCCTATCAACCACTCGGT GGCATCTCCCGTAAGCGACTTCAGGCCATGAAGAGTAGCA CAACATACTGTTACGATTTTCCACTGGCTTTCTCAACTGCCC TGAAGCAATCATGGGCATCGGAAGCTCCGGATGTCAAGAA ACCCTCGGACAAAGCACTTTTGAAAGTAACCGAGCTAGCA TTTGCTGATCCAAAAGGCACATGGGGAACTCCGCTTGTTCC AATAAATCGCAAGCCTGGTATGAACGATGTTGGCATGGTA GCCTGGTACTTGGAATGTCCACCCCCGAGTTCCCTAACGG AAGAACAATAATGGTTGTAGCTAATGATGTTACCTTCAAG GCCGGATCTTTCGGACCACGAGAAGATGCTTTCCTTCTTGC TGTTACAAATCTTGCTTGCGCGAAGAACTTCCTCTTATTTA TCTGGCTGCCAATTCAGGAGCTCGACTTGGTGTGCGGAA GAGCTAAAATCCTGCTTTAAAGTTGGCTGGTCGGATGAGT CAAACCCCGAGAGTGGATTTTCAGTATGTCTACTTAACCCCT GAAGATTACGATCGTATAGGATCGTCAGTCATAGCCCACG AGTTAAACTCGAAAGTGGAGAAAAAAGATGGGTTATAG ACACCGTTGTCGGTAAGGAGGACGGATTAGGTGTCGAGA ATCTATCAGGAAGTGGTGCTATAGCCAGTGCATACTCAAG GGCTTACAAGGAAACATTTACTCTGACTTTTGTAACCGGTA GAACGGTCGGTATTGGTGCCTATCTTGCTCGTCTTGGGATG CGTTGTATACAGAGGCTTGACCAGCCTATAATTCTCACGGG TTTTCTGCGTTAAATAAACTTCTCGGTCTGGGAGGTTTACA GTTACACATGCAACTTGGTGGACCGAAGATTAATGGGCA
--	--	--	--	--

				CAAACGGGGTAGTTCATCTTACAGTTTCCGATGATCTTGAA GGCATTTTCATCTATCTTGAAGTGGCTGAGCTATGTTCCACC CTATTCAGGTGGTGAACCTCCGATTTCTCGGTGTTTAGACC CTCCCGAAAGACCGGTTGCGTATTTGCCTGAAAATTGTTGT GATCCTCGTGGGGCTATATCTGGTACGGTTGACTCCGCCG GTAAATGGTTTGGGGGTATTTTCGACAAGGATAGTTTTGT GGAAACCTTAGAAGGATGGGCACGAACAGTTGTCACGGG AAGGGCTAAACTCGGAGGAATTCCAGTTGGCATAGTTGCT GTTGAGACACAGACTGTTATGCAAGTAATCCAGCAGATC CCGGTCAACTCGACTCACATGAGAGAGTCGTACCACAAGC AGGGCAAGTATGGTTCCAGATTCCGCATCCAAGACAGCA CAAGCGCTGATGGATTTCAACCGGGAAGAACTCCCACTTTT CATTTTAGCTAATTGGAGAGGTTTCTCGGGTGGACAAAGG GATCTCTTTGAAGGGATCCTTCAGGCTGGATCCACCATAGT CGAAAATCTTAGGACTTATAATCAACCCGTTTTTGTATAT ACCTATGATGGGGGAGCTTCGAGGAGGGCATGGGTGGTC GTCGATAGTCGAATTAATCCGACCATATAGAAATGTACGC CGACCAAACAGCTAAAGGAAATGTAAGTGAACCCGAAGGA ATGATCGAGATTAAGTTCAGAACCAAGGAAGTCTCGAGT GTATGGGAAGGCTTGATCAACAACTCATCGGTCTCAAAGA AAAACTAGCCGAAGCCAAGAGCTCTAATCCTATGGTAAA ATCGACCCGCTTCAGCAACAAATAAAAGCCCGCGAGAAGC AACTATTGCCTCTATACTCAGATAGCCACCAAATTTGCC GAGTTGCACGATACGTCTTTAAGGATGGCTGCCAAAGGAG TCATTAGGGACGTCTTGGAATGGAAAAGCTCGCGTTCTTTC TTTTACAAACGATTATACAGGAGAGTGATGGAAGAATCGC TCGTCAAGACCGTTTCGAGATGCTGCAGGTGAACGGTTGAC CCATAAGTCGGCTTTGGAGTTGATCCGGAAATGGTTCAAT GAGTCGATATTTCCGGAGAGGCTTCCGATGCTTGGGCTGA TGATGCAGCCTTCTTTAAGTGGAAAGGATAATACCGCTAACT ACGAGGAGAAGTTGAAAGAGTTGCGCGTTCAGAAGGTAT TGGATCAGCTGTCGAATATTGGAGATTCCGGTAACTAATTTG AGGGCTCTGCCTCAGGGTCTTGCTGCCCTACTTCAAAGGT GGATCCATCGAGTCGAGAAGAACTAGTTGAGGAACTCCGA AAAGTGCTCACTTGATTAGCGGCCGTTGATGGTGAAGTGA AACCTTCTTGGTTTCATCATGGTAGAAATTATTATTAGGCA AATCTATAATTCTAGTTACATCAATTGTATTAGACAATAGTA TGAACATAATTTATTTAATTAAATTGTATAAATAGGAAACCTT GAATTCATTTGAATTAATCGGCTTATGCTTGCATTATTTTGT ATTGATTCAATTAATAATTTACATACTTTTGTATTATAATA TGGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG CCTCGGTCTCTACTGA
20	Amaranthus rudis	cDNA Contig	1529	CGGTTGCGTATTTGCCGGAAAATTCTTGTGATCCTCGTGGT GCTATATCTGGTACGGTTGACTCCACCGGTAAATGGTTTGG GGGTATCTTCGACAAAGATAGTTTTGTGGAAACCTTAGAA GGCTGGGCACGAACAGTTGTCACGGGAAGGGCTAAACTT GGAGGAATTCCAGTTGGCATAGTTGCCGTTGAGACGCAGA CTGTTATGCAAGTAATCCAGCAGATCCCGGTCAACTCGAC

				TCACACGAGAGAGTCGTACCACAAGCAGGGCAAGTATGGT TCCCAGATTCCGCATCCAAGACAGCACAAGCGCTGATGGA TTTCAACCGGGAAGAAGTCCCACCTTTTCATTTTAGCTAATTG GAGAGGTTTCTCGGGTGGACAAAGGGATCTCTTTGAAGG GATCCTTCAGGCCGGATCCACCATTGTCGAAAATCTTAGGA CTTATAATCAACCCGTTTTTGTATATACCTATGATGGGG GAGCTTCGAGGAGGAGCATGGGTGGTCGTCGATAGTCGA ATTAATTCCGACCATATAGAAATGTACGCCGACCAAACAGC TAAAGGAAATGTACTTGAACCCGAAGGAATGATCGAGATT AAGTTCAGAACCAAGGAAGTCTCGAGTGTATGGGAAGGC TTGATCAACAACCTCATCGGTCTCAAAGAAAACTAGCCGA AGCCAAGAGCTCTAATTCCTATGGTAAAATCGACCCGCTTC AGCAACAAATAAAAGCCCGCGAGAAGCAACTATTGCCTCT ATATACTCAGATAGCCACCAAATTTGCCGAGTTGCACGATA CGTCTTTAAGGATGGCTGCCAAAGGAGTCATTAGGGACGT CTTGAATGGAAAAGCTCGCGTTCTTTCTTTTACAAACGAT TATACAGGAGAGTGATGGAAGAATCGCTCGTCAAGACCGT TCGAGATGCTGCAGGTGAACGGTTGACCCATAAGTCGGCT TTGGAGTTGATCCGGAAATGGTTCAATGAGTCCGATATTT CGGAGAGGCTTCTGATGCTTGGGCTGATGATGCAGCCTTC TTAAATGGAAGGATAATACCGCTAACTACGAGGAGAAGT TGAAAGAGTTGCGCGTTCAGAAGGTATTGGATCAGCTGTC GAATATTGGAGATTCGGTAACTAATTTGAGGGCTCTGCCTC AGGGTCTTGCTGCCCTACTTCAAAGGTGGATCCATCGAG TCGAGAAGAAGTGTGAGGAAGTCCGAAAAGTGCTCACT TGATTAGCGGCCGTTGATGGTGAAGTGAAACCTTCTTGGT TTCATCATGGTAGAAATTATTATTAGGCAAATCTATAATTCT AGTTACATCAATTGTATTAGACAATAGTATGAACTAATTTA TTAATTAAATTGTATAAATAGGAAACCTTGAATTCATTG AATTAATCGGCTTATGCTTGCATTATTTGTATTGATTCAAT TAATAATTTACATACTTTTGATTATTAATAATGGAAATCCTC AAAGTTTAAGGGGATTGTTTCTAAAAA
21	Amaranthus rudis	cDNA Contig	1103	GGGGCCATGGTCGTTATTAAGAACTCTTCAGTTCTTGCCATC GGTGATTGCCTGCAGCATTGAGAGAAACAAGTATGGTTC AGATCAATCAACTTCCACTGGCTCTATAGAACCAGTCATCC ATGGAAATATGTTGCACATTGCACTAGTCGGGGTGAATAA CCAGATGAGCTTGTGTCAGGATAGTGGTGATGAAGATCAG GCTCAAGAGAGAATCGATAAGTTGGCCAAAATTCTGAGAG AACAAGAAGTAAGTTCAGCCCTTCGTGCTGTTGGTGTGG TGTGATTAGTTGCATCATAAGAGAGATGAAGGGCGAACT CCGATGAGGCATTCACTCTATTGGTCAGCAGAAAAACAAT ATTATAGTGAGGAGCCTTTACTACGTCATTTGGAACCCCT CTGTCTATGTATCTCGAGCTGGACAAGCTTAAGGGTTATGA AGATATCAAATATACTCCTTCCCGTGATCGTCAATGGCATC TTACACGGTTATTGATAAACCATTCACTCGGAGGATGTTT TTGAGAACCCTTGTAAGACAACCCATCTCCGAGTTCACAGG CGTCGAACTAAGCGCTCTTGAAACACAAAAGCCTATCTCTT TACTTCAAGAAGCATCCTAAGGTCCTTAACAACCGCCATG

				GAGGAGTTGGAACCTCAATGCACATAGTGCTTCACTGAAAC CCGATCACGCTCATATGTACTTGTACATTGTCCGAGAGCAA CAAATATACGATCTTGTGCCATATCACAGGGAGGTGAACA TAGATTACCAACAAGAAGAGACTTCGGTTCAATTCTTTTTG GAAGATCTCGCGCATGAAATCCACAGTCTTGCTGGTGTAA GGATGCATAAACTAAATGTTTGTGAGTGGGAAGTGAACT TCGGATATCATCTCCCGGGAAAGCTAATGGTTTATGGAGG GTGGCGGTTACAAATGTGACTGGTCAGACCTGTTCCGTAC ATGTTTACCGTGAATTGGAAGATAACAACCTACATGAAAT GGTCTACCATTAGTATCCGTTACGGCCCCCACCATGGGG TACCTGTGAATGCACCCTATCAACCACTCGGTGGCATCGCC CGTAAGCGAC
22	Amaranthus rudis	cDNA Contig	541	AGATGCTTTCTTTCTTGCAGTTACAAATCTTGCTTGTGCAAA GAACTTCCTCTTATTTATCTGGCTGCAAATTCAGGAGCTC GACTTGGTGTGCGGAAGAGCTAAAATCCTGCTTTAAAGTT GGCTGGTCGGATGAGTCAAACCCCGAGAGTGGATTTAGT ATGTCTACTTAACCCCGGAAGATTACGATCGTATCGGATCG TCAGTCATAGCCACGAGTTAAACTCGAAAGTGGAGAAA AAAGATGGGTTATAGACACAGTTGTCCGTAAGGAGGACG GATTAGGTGTCGAGAATTTATCAGGAAGTGGTGCTATAGC AAGTGCATACTCAAGGGCTTACAAGGAAACATTTACTCTG ACTTTTGTAACCGGTAGAACGGTCGGTATTGGTGCCTATCT TGCACGTCTTGGGATGCGTTGTATACAGAGGCTTGACCAG CCTATAATTCTCACGGGTTTTTCTGCGTTAAATAAACTTCTC GGTCGGGAGGTTTACAGTTCACACATGCAACTTGGTGGAC CGAAGATTATGGGC
23	Amaranthus rudis	gDNA Contig	1511	TTTAAAGAACGTAATTTCTTTTTATTTATGAGAAGTTGCAGA TGATGTTTGTATATAAATGGTCAATCGAAAACTACCTCTTT GTTATCAGTAACAAGGGTAAGGTTGTATATATCCGACTCCT CCAACTCTTCTTCGGTGGGAGCTACTTAATGTCGCTGGGG CAATGGAAGTTGTTGTTTGTGCAATTTAAGTGGAGAAGTTT GTTACATTGAATTTTAATTAGATGGTATAAGTATGTTATC AAAGATTTATAATTGAAAAGTGGTGTGATAAACAGTTTCAG GAGCAGTGGTCTCATTTTCGAGCAATACAAAAAGTGCCGT GCTTCTCTAAACAACGACGATTACAGACATGGCTTCTCATTC CCAAAATAGTGAATACCTGAATGGACCGATGATGCCACTC CTGAGGAATTCATCTGTATTACCCATTGTGGATAAGTTCTG TTATGCTCTTGGAGGGACGCGGCCAATCCATAGTATTTTGA TAGCAAACAATGGGATGGCTGCTGTCAAATTTATAAGAAG TATCCGAACATGGGCTTACGAGACTTTTGGTACAGAGAAG GCTATATTATTGGTAGCCATGGCTACTCCCGAAGACATGAA AATCAATGCCGAGCATATTCGAATGGCTGACCAGTTTGTG AAGTCCCCGGAGGGACTAACAACAATAACTATGCCAATGT GCAGCTCATTGTTGAGGTAATGTATTGTGAGATTAGAAATT TCTAGCCTATTATCCATAGTTACATGGAACGTGGAACGTAG CCACGTTCCGTGATCCGGGAACATTATTCCCCAATCACCA CGAAATGCGACCTAAATCGCTCAAGGTGACGTCTCGGTGT AGAACACCTTTTTTAAAATGTATTTTGGCCTTCATTTACAAA

				TTAAAGAAAAAAGAAAGGAGGAACAAACGAGATGTAACC CAGAAACCTAAAAAAGATCCACTTGAAAATAATTTCTTAAA GCAAATTAATCATTTTAGTTTAATTTTTTTTCAAATATATATT TTATACGTAATGTATCTCGTACCCAATCGAACCTGTCGTTCC AGGTAACAATGCTGTTATCTGCTTTATTGTAATTTATTAAAT GTGTCCTCTGAAAAAATGGCAATATCCGAGCAACTTGACG CAGTTTTGCCTGGCCAGAGACATGCGTAATTTGTTATATGA GATTACAAATTTATAGCCTTTTATATGGTAAAATCTTGTGG TAGGACTAACTTAAATCCTTTTTCTTTCAGTTAGCGGAAGTT ACACGAGTTGACGCAGTTTGGCCTGGTTGGGGACATGCGT CAGAGATCCCCGAGCTGCCAGATTCACTAAGTGCGAAGGG AATTGTGTTTCTAGGGCCCCCAGCTGCATCTATGGCTGCTC TTGGAGATAAAATTGGTTCATCATTGATTGCACAAGCTGCA GATGTCCCAACTCTTCCATGGAGTGGTTCTCATGTACGTAT TACACGTTTTTCCAAATTTTTGATCATTAGAATTTTAG
24	Amaranthus rudis	gDNA Contig	1246	CATACCAATGTCCGAGCATCAAAAATCGGACACGGGTACG TGAAGCAAAATAAAGAGTCCGAGTAACATACTTATGATTA ATGTTAAATAACTTATTGTCTTTATTGTCTATATCCAGAAAG CATCGACTAGTAGTGCAGCGACTGTTTCAGAGTATATAGG CTATCTTGAAAAAGGTCAAATTCCTCCGAAGGTATGCAACA TACCAGTGGTTGGCGGGTGTTTAGATTAACTTATTCTATTT ATATCAATTATACTTTCAGTGTTCTGCTTTAATTCTGGTTTT ATGATTGCAGCATATATCACTCGTCCACTATGAAGTTGCTC TAAATATTGAGGGGATGAAATATACTGTATGTTCCATGCCA CTCGTACTTTCCTCGTGAATTTTTGTAATGGATGCTATTTTT GACATTATTCTTCTAAATATGTTTTCTGATATTAATGAAC ATGTGGTTTCGGATTGCCAGATTGAGATGATTAGGGGTGG ACCAGGAAGCTACAAAATGTGGTTGAATGGGTCCGTAATT GAGGCGGAAATACATACTTTAAGAGATGGGGGTCTCTTGA TGCAGGTATAACCTGTTTTTTTGGATTTTTTCCGATATACGG TATTTTTATTTTATATGGACCCTGGATTTGAAAAGCATTAG ATAATGTGCTATCGAACAAGTAGAAGGTAGTTTTGTGAGA CCGTGAAGCATTTAGTTAAACCCATTGTTAAGATTACTTTT AGATTTAGTACTTCTACAATGCTTGGGATATTAATCAATAA TCATGCTTTTAATAATAAAGAGAAATATTGTCATAGACTCA TAGGTATAATGGCTCGTTAAATTATATGCACTTCTTGTTTAT GTGAAGTTCGAGATGCTGTTTGTAATCAACTTTGGAAATCG AGGGCATAGTGCAAAATCTCGGATGTGGTCACCTTTGATG CAACAATCTCAAAGCCACTTTTGTGGTCAATGTAGATGGTT TCATTTTTATCGTGGTATAAATATGGGTGCGGGTAATCTCA AGAACCCATATAGTAGACGATAACTTGTTATTAAGGGGA TAAGGCTGCATACATCCGATGTCCCCTTTACCCTGTCTAGA TGTGAGCTACTTGGGGGTTTTCTATTGAAGTTAAAGATAC AAGAAGGATTTCTGTTAAAAAAAAGGAATATTTGAACTA CAAAAAAGTAATAAGTTTATATACTAGTTCGTTCTAACCCA TATAGCACATTTTAAAAAA
25	Amaranthus rudis	gDNA Contig	780	TCAGCCTTATCTTGTCAAGGGAAGTGTGAGGATGCTGTGG CACAGATCAGGCTTCATAGCTTTATGGGAATTTGTGGAGG

				AGAATATTGACCGAACAAATTTTTCTGATGATCTGACTACA AACAGTGAGCGAAAGTGGGGGGCCATGGTCGTTATTA ACTCTTCAGTTCTTGCCATCGGTGATTGCTGCAGCATTGAG AGAAACAACATCATGGTTCAGATCAATCAACTTCCACTGGCT CTATAGAACCAGTCATCCATGGAAATATGTTGCACATTGCA CTAGTCGGGGTGAATAACCAGATGAGCTTGTTGCAGGATA GGTACGTAAGACTAGCCTGTAACATATGGTTTAATAGTTTT ATTATGTAACCTTGTGCTTTTAATGTCATTTATTTCTAGCCG ATATTACGTAAGACTAGCCGATATTCATCCGATCTTGTAAC TGAACCCGACTTCAAAATCAAATTTAAATTATATATAAATC AACGTGGACATAAGACCCGATTTTAATCTGACCCGAAATCA ACCCAATGACCCGAATGAACACCTATAGTTATCACTAACAA GGGTCAGGTTACGTACATCAAACCCCTCAAATCCTGCTTAG GTGGGAGCTTGTCATTGGCATTGGGGTAACGGGAATGTGT GTGCTATGTACATTGTGCATCTATTCTTATACTTATGTTGTG AGTTTTTTGGATCGAATATAAAGAGCTTATCTTTTGTATTT CTTGATGTGCTGTAGTGGTGATGAAGATCAGGCTCAAGAG AGAAT
26	Amaranthus rudis	gDNA Contig	342	TTGCTTGAACAAACGAAATTGAGTGAGCTCCGTTGGAACAT TGCTAGAAACCTCTCTGAGCTAGAAATGTTTACCGAGGAT GGCGAAAACATGGATACTCCAAAAAGAAAAAGTGCTATTA ATGAACGCATGGAGGCCCTTGTGAGTACTCCTCTAGCTGTT GAAGATGCCCTTGTTGGTTTGTGATCACAGTGATCATAC ACTTCAAAGGCGGGTGTGAGACCTATGTTTCGGAGGCTT TATCAGGTGAATACATACTTAATTGCGGAGTTAGCTTCAGC TTCCTCAGTCCTATTCGTTGCAAGAACTTCTCTTGATCTTT CTCGAGTCGAGGGACT
27	Amaranthus spinosus	cDNA Contig	755	TTCGAGGAGGCGCATGGGTGGTCGTCGATAGTCGAATTAA TTCCGACCATATAGAAATGTACGCCGACCAACAGCTAAA GGAAATGTGCTTGAACCGGAAGGAATGATCGAGATTAAGT TCCGAACCAAGGAACTTCTCGAGTGTATGGGAAGGCTTGA TCAACAACATCATCGGTCTCAAGGAAAAACTAGCCGAAGCC AAGAGCTCTAATTCCTACAATAAAATTGAGCCCCTGCAGCA ACAAATAAAAGCCCGTGAGAAGCAACTATTGCCTCTATATA CTCAAATAGCCACCAAATTTGCCGAGTTGCACGATACGTCT TTAAGGATGGCTGCCAAAGGAGTCATTAGGGACGTCTTGG AATGGAAAAGCTCGCGTTCGTTCTTTTACAAAAGATTATAC AGGAGAGTTATGGAGGAATCGCTCGTCAAGACTGTTTCGAG ATGCTGCAGGTGAACGGTTGACCCATAAGTCGGCTTTGGA GTTGATCCAAAAATGGTTCAATGAGTCGAATATTTCCGGA GAGGCTTCCGATGCTTGGGCTGATGATGCGGCCTTCTTTAA GTGGAAGGACAATACCGCCAACTACGAGGAGAAGTTGAA AGAGTTGCGCGTTCAGAAGGTATTGGATCAGCTGTCGAAT ATTGGAGATTCGGCAACTAATTTGAGGGCTCTGCCTCAGG GTCTTGCTGCCCTACTTCAAAGGTGGATCCATCGAGTCGA GAAGAAGTAGTCGAGGAACTCCGAAAAGTG
28	Amaranthus spinosus	cDNA Contig	605	AAGAACGGTCGGTATTGGTGCCTATCTTGCTCGTCTTGGG ATGCGTTGTATACAGAGGCTTGACCAGCCTATAATTCTCAC

				GGGTTTTTCTGCCTTAAATAAACTTCTCGGCCGGGAGGTTT ATAGTTCACACATGCAACTTGGTGGACCGAAGATTATGGG CACAAACGGGGTAGTTCATCTTACAGTTTCCGATGATCTTG AAGGCATTTTCATCTATCTTGAAGTGGCTGAGCTACGTTCCA CCCTATTTCAGGTGGTGAACCTCCGATTTCTCGGTGTTTAGA CCCTCCAGAAAGACCGGTTGCGTATTTGCCTGAAAATTCTT GTGATCCTCGTGGTGGTATATCTGGTACGGTTGACTCCACC GGTAAATGTTTTGGGGGTATTTTCGACAAAGATAGTTTTG TGGAACCTTAGAAGGATGGGCACGAACAGTTGTCACGG GAAGGGCTAACTCGGAGGAATTCCAGTTGGCATAGTTGC CGTTGAGACGCAGACTGTTATGCAAGTAATCCCAGCAGAT CCCGGTCAACTCGACTCACACGAGAGAGTCGTACCACAAG CAGGGCAAGTATGGTTCCCAGATTCCGCATCCAAGACAG
29	Amaranthus spinosus	cDNA Contig	577	GAGGTGAACATAGATCACCAACAAGAAGAGGCTTCAGTTC AATTCTTTTTGGAAGATCTCGCGCATGAAATCCATAGTCTT GCTGGTGTAAGGATGCATAAACTAAATGTTTGTGAGTGGG AAGTGAACTTCGGGTATCATCTCCCGGGAAAGCTAATGG TTTATGGAGGGTGGCAGTTACTAATGTGACTGGTCATACCT GTTCCGTACATGTTTATCGTGAATTGGAAGATAGCAACCTA CATGAAATGGTCTACCATTAGTATCTGTTACGGCCCCCA CCATGGGGTACCTGTGAATGCACCCTATCAACCACTCGGT GGCATCGCCCGTAAGCGACTTCAGGCCATGAAAAGTAGCA CAACTTACTGTTACGATTTTCCACTGGCTTTCTCAACTGCCC TGAAGCAATCATGGGCATCGGAAGCTCCGGATGTCAAGAA ACCCTCGGACAAAGCGCTTTTGAAAGTAACCGAGCTTGCA TTTGCGGATCCAAAAGGCACATGGGGAACCTCCGCTTGTTT CAATAAATCGCAAGCCTGGTATGAACGATGTTGGCATGGT AGCCTGGTACA
30	Amaranthus thunbergii	cDNA Contig	1492	GTGCTATTAATGAACGTATGGAGGCGCTTGTGAGTACTCC TCTAGCTGTCGAAGATGCCCTTGTTGGTTTGTTTGATCATA GTGATCATACTTCAGAGGCGGGTTGTTGAGACCTATGT TCGGAGGCTTTATCAGCCTTATCTTGTCAAGGGAAGTGTCA GGATGCTGTGGCACAGATCAGGCTTCATAGCTTTATGGGA ATTTGTTGAGGAGAATATTGACCGAACGAATTTTTCTGATC TGACTACAAACAGTGGGAACCATAGTGAGCGAAAGTGGG GGGCCATGGTCGTTATTAATACTCTTCAGTTCTTGCCATCG GTAATTGCTGCAGCATTGAGAGAAACAACCTCATAGTTCCG ATCAATCAACTCCACTGGCTCTATAGAATCAGTCATCCAT GGAAATATGCTGCACATTGCACTAGTGGGGGTGAATAACC AGATGAGCTTGTTGCAGGATAGTGGTGATGAAGATCAGG CTCAAGAGAGAATCGATAAGTTGGCCAAAATTCTGAGAGA ACAAGAAGTGAGTTCAGCCCTTCGTGCTGTTGGTGGTGGT GTGATTAGTTGCATCATAACAGAGAGATGAAGGGCGAACTC CGATGAGGCATTATTCTATTGGTCAGCAGAAAAACAATAT TATAGTGAGGAACCTTTACTACGTCATTTGGAACCCCCTCT ATCTATGTATCTCGAGCTGGACAAGCTTAAGGGTTATGAA GATATCAAATATACTCCTTCCCGTGATCGTCAATGGCATCT TTACACGGTTATTGATAAACCATTTCATTGGAGGATGTTTT

				TGAGAACCCTTGTAAGACAACCCATCTCCGAGTTCACTGGC GTCGAACTAAGCGCTCTTGAAACACAAAAGCCTATCTCTTT TACTTCAAGAAGCATCCTAAGGTCATTAACAACCGCCATGG AGGAGTTGGAGCTCAATGCACATAGTGCTTCACTGAAACC CGATCACGCTCATATGTACTTGTACATTGTCCGAGAGCAAC AAATATACGATCTTGTGCCATATCACAGGGAGGTGAACAT AGATTACCAACAAGAAGAGGCTTCGGTTCAATTCTTTTTGG AAGATCTCGCGCATGAAATCCATAGTCTTGCTGGTGTAAG GATGCATAAACTAAATGTTTGTGAGTGGGAAGTGAACTT CGGATATCATCTCCCGGGAAAGCTAATGGTTTATGGAGGG TGGCAGTTACTAATGTGACTGGTCATACCTGTTCCGTACAT GTTTATCGTGAATTGGAAGATAGCAACCTACATGAAATGG TCTACCATTAGTATCTGTTACGGCCCCCACCATGGGGTA CCTGTGAATGCACCCTATCAACCACTCGGTGGCATCTCCCG TAAGCGACTTCAGGCCATGAAGAGTAGCACAACATACTGT TACGATTTTCCACTGGCTTTCTCAACTGCCCTGAAGCAATC ATGGGCATCGGAAGCTCCGGATGTCAAGAAACCCTC
31	Amaranthus thunbergii	cDNA Contig	1214	GATGGGTTATAGACACCGTTGTCGGTAAGGAGGACGGATT AGGTGTCGAGAATCTATCAGGAAGTGGTGCTATAGCCAGT GCATACTCAAGGGCTTACAAGGAAACATTTACTCTGACTTT TGTAACCGGTAGAACGGTCCGGTATTGGTGCCTATCTTGCTC GTCTTGGGATGCGTTGTATACAGAGGCTTGACCAGCCTAT AATTCTCACGGGTTTTCTGCGTTAAATAAACTTCTCGGTCTG GGAGGTTTACAGTTCACACATGCAACTTGGTGGACCGAAG ATAATGGGCACAAACGGGGTAGTTCATCTTACAGTTTCCG ATGATCTTGAAGGCATTTTCATCTATCTTGAAGTGGCTGAGC TATGTTCCACACTATTCAGGTGGTGAAGTCCGATTTCTCG GTGTTTAGACCCTCCCGAAAGACCGGTTGCGTATTTGCCTG AAAATTGTTGTGATCCTCGTGGGGCTATATCTGGTACGGTT GACTCCGCCGGTAAATGGTTTGGGGGTATTTTCGACAAGG ATAGTTTTGTGGAAACCTTAGAAGGATGGGCACGAACAGT TGTCACGGGAAGGGCTAACTCGGAGGAATTCAGTTGGC ATAGTTGCTGTTGAGACGCAGACTGTTATGCAAGTAATCCC AGCAGATCCCGGTCAACTCGACTCACATGAGAGAGTCGTA CCACAAGCAGGGCAAGTATGGTTCCAGATTCCGCATCCA AGACAGCACAAGCGCTGATGGATTTCAACCGGGAAGAACT CCCACTTTTCATTTTAGCTAATTGGAGAGGTTTCTCGGGTG GACAAAGGGATCTCTTTGAAGGGATCCTTCAGGCTGGATC CACCATAGTCGAAAATCTTAGGACTTATAATCAACCCGTTT TTGTTTATATCCCTATGATGGGGGAGCTTCGAGGAGGCGC ATGGGTGGTCGTCGATAGTCGAATTAATTCCGACCATATA GAAATGTACGCCGACCAAACAGCTAAAGGAAATGTGCTTG AACCGGAAGGAATGATCGAGATTAAGTTCCGAACCAAGG AACTTCTCGAGTGTATGGGAAGGCTTGACCAACAACCTCATC GGTCTCAAGGAAAACTAGCCGAAGCCAAGAGCTCTAATT CCTACGATAAAATCGAGCCCCTGCAGCAACAAATAAAAGC CCGCGAGAAGCAACTATTGCCTCTTTATACTCAGATAGCCA CCA

32	Amaranthus thunbergii	cDNA Contig	1121	TAAGAGATGGGGGTCTCTTGATGCAGTTGGATGGAAACA GCCATGTGATATATGCAGAGGAAGAAGCTGCAGGAACTC GCCTTCTGATTGATGGAAGAAGCTGTTTGCTTCAGAACGAT CACGATCCTTCAAAGCTGATTGCGGAGACACCGTGTAAGC TTATGCGGTATTTGGTACCAGATAACAGTCACATAGATGCA GATACTCCGTATGCTGAAGTTGAGGTCATGAAGATGTGTA TGCCTTTGCTTTCCCTGCATCCGGTGTTTTACAATTTAAGA TGTCCGAAGGTCAAGCTATGCAGGCTGGTGAAGTCATAGC TAGTCTAGAGTTGGATGATCCTTCAGCTGTAAGAAAAGCC GAACCTTTCCGTGGAAGCTTTCCTGTCATGGGCGCACCAAC TGCAATATCTGGAAAAGTTCATCAGAGGTGTGCCGCAAGT TTAAATGCCACTCGGATGATTTTGGCTGGTTATGAACACAA TATAGATGAAGTAGTACAGAGTTTGCTGGAATGCCTTGAT AGTCCCGAACTTCCATTCCTTCAATGGCAAGAATGCTTGTC TGTGCTGGCAACACGACTTCCCAAAGATCTGAGATACGAA TTGGAATCAAAATCTAGAGCTTTTGAAGGGATTACCAACAC CCAGAACGTAGAATTTCTGCTAAGTTGTTGAAAAGCATTC TTGAGGACCATTAAACTCATGCCACGAGAAAGATAAAGG AGCTCAAGAGAGGCTTATTGAGCCTCTTATGGCTCTTGCAA AGTCTTACGAAGGTGGGCGAGAAAGTCATGCTCGTTTTAT TGTTCAATCTTTATTTGAAGAGTATTTATCCGTTGAAGAATT GTTTAGCGACAATCTCCAGGCTGATGTGATTGAACGTCTCC GCCTTCAGTATAAGAAGGATCTGCTGAAGATTGTTGACATT GTACTGTCGCATCAGGGTGTTAAGAATAAAAATAAGCTGA TTCTACGACTCATGGAACAGCTGGTTTACCCAAATCCCGCT GCATACAGGGGGGAACTTATCCGTTTCTCTCAATTGAACCA TACAATGTATTCTGAGTTGGCACTAAAGGCCAGTCAATTGC TTGAACAAACGAAATTGAGTGAGCTC
33	Amaranthus viridis	cDNA Contig	5705	AGGCACAGTCGGTGAAACCTAAAGGTCATTGTATTGCTGC GCGTGTGACAAGTGAGGATCCCGATGACGGTTTTAAGCCT ACAAGCGGGAAAGTACAGGAGCTGAGTTTTAAAGTAAA CCGAATGTGTGGGCCTACTTCTCTGTAAAGTCTGGGGGAG GCATTCATGAGTTCTCGGATTCTCAATTTGGCCATGTTTTG CATTTGGTGAAAACCGAGGTTTGGCCATAGCAAATATGAT TCTTGGATTAAAAGAAATTCAAATTCGTGGAGAAATTCGA ACTAATGTTGATTACACCATCGATCTTTTAAATTGTTTGAT TATAGAGAAAACCAAATTCATACAGGTTGGTTGGATAGTA GAATTGCGATGAGGGTCAGAGCCGAAAGGCCACCTTGGT ACATCTCTGTTGTGGGAGGAGGGCTTTACAAAGCATCGAC TAGTAGTGACGCGACTGTTTCAGAGTATATAGGCTATCTTG AAAAAGGTCAAATTCCTCCGAAGCATATATCACTCGTCCAC TATGAAGTTGCTCTAAATATCGAGGGGATGAAATATACCA TTGAGATGATTAGGGGTGGACCAGGAAGCTACAAAATGT GGTTGAATGGGTCCGTAGTTGAGGCGGAAATACATACTTT AAGAGATGGGGGTCTCTTGATGCAGTTGGATGGAAACAG CCATGTGATATATGCTGAGGAAGAAGCTGCAGGAACTCGC CTTCTGATTGATGGAAGAAGCTGTTTGCTTCAGAACGATCA CGATCCTTCAAAGCTGATTGCGGAGACACCGTGTAAGCTT

				ATGCGGTATTTGGTACCAGATAACAGTCACATAGATGCAG ATACTCCGTATGCTGAAGTTGAGGTCATGAAGATGTGTAT GCCTTTGCTTTCCCCTGCATCCGGTGTTTTACAATTTAAGAT GTCCGAAGGTCAAGCTATGCAGGCTGGTGAGCTCATAGCT AGTCTAGAGTTGGATGATCCTTCAGCTGTAAGAAAAGCCG AACCTTTCCGTGGAAGCTTTCCTGTCATGGGCGCACCAACT GCAATATCTGGAAAAGTTCATCAGAGGTGTGCCGCAAGTT TAAATGCCACTCGGATGATTTTGGCTGGTTATGAACACAAT ATAGATGAAGTAGTACAGAGTTTGCTGGAATGCCTTGATA GTCCCGAACTTCCATTCTTCAATGGCAAGAATGCTTGTCT GTGCTGGCAACACGACTTCCCAAAGATCTGAGATACGAAT TGGAATCAAAATCTAGAGCTTTTGAAGGGATTACCAACAC CCAGAACGTAGAATTTCTGCTAAGTTGTTGAAAAGCATTCT TTGAGGACCATTAACTCATGCCACGAGAAAGATAAAGG AGCTCAAGAGAGGCTTATTGAGCCTCTTATGGCTCTTGTA AGTCTTACGAAGGTGGGCGAGAAAGTCATGCTCGTTTTAT TGTTCAATCTTTATTTGAAGAGTATTTATCCGTTGAAGAATT GTTTAGCGACAATCTCCAGGCTGATGTGATTGAACGTCTCC GTCTTCAGTATAAGAAGGATCTGCTGAAGATTGTTGACATT GTACTGTCGCATCAGGGTGTTAAGAATAAAATAAGCTGAT TCTACGACTCATGGAACAGCTGGTTTACCAAATCCCGCTG CATAAGGGGGCAAACCTTATCCGTTTCTCTCAATTGAACCA TACAATGTATTCTGAGTTGGCACTAAAGGCCAGTCAATTGC TTGAACAAACGAAATTGAGTGAGCTCCGTTGGAACATTGCT AGAAACCTCTCTGAGCTAGAAATGTTTACCGAGGATGGCG AAAACATGGATACTCCAAAAAGAAAAAGTGCTATTAATGA ACGTATGGAGGCGCTTGTGAGTACTCCTCTAGCTGTGCAA GATGCCCTTGTTGGTTTGTGATCATAGTGATCATACACTT CAGAGGCGGGTTGTTGAGACCTATGTTCCGAGGCTTTATC AGCCTTATCTTGTCAAGGGAAGTGTCAGGATGCTGTGGCA CAGATCAGGCTTCATAGCTTTATGGGAATTTGTTGAGGAG AATATTGACCGAACAAATTTTCTGATCTGACTACAAACAG TGGGAACCATAGTGAGCGAAAGTGGGGGGCCATGGTCGT TATTAAACTCTTCAGTTCTTGCCATCGGTAATTGCTGCAG CATTGAGAGAAACAACCTCATAGTTCCGATCAATCAACTTCC ACTGGCTCTATAGAATCAGTCATCCATGGAAATATGCTGCA CATTGCACTAGTGGGGGTGAATAACCAGATGAGCTTGTTG CAGGATAGTGGTGATGAAGATCAGGCTCAAGAGAGAATC GATAAGTTGGCCAAAATTCTGAGAGAACAAGAAGTGAGTT CAGCCCTTCGTGCTGTTGGTGTGTTGGTGTGATTAGTTGCATC ATACAGAGAGATGAAGGGCGAACTCCGATGAGGCATTTCAT TCTATTGGTCAGCAGAAAAACAATATTATAGTGAGGAACC TTTACTACGTCATTTGGAACCCCTCTATCTATGTATCTCGA GCTGGACAAGCTTAAGGGTTATGAAGATATCAATATACT CCTTCCCGTGATCGTCAATGGCATCTTTACACGGTTATTGA TAAACCATTCAATCGGAGGATGTTTTTGAGAACCCTTGTA GACAACCCATCTCCGAGTTCACTGGCGTCGAACTAAGCGCT CTTGAAACACAAAAGCCTATCTCTTTACTTCAAGAAGCAT
--	--	--	--	--

				CCTAAGGTCATTAACAACCGCCATGGAGGAGTTGGAGCTC AATGCACATAGTGCTTCACTGAAACCCGATCACGCTCATAT GTA CTTGTACATTGTCCGAGAGCAACAAATATACGATCTTG TGCCATATCACAGGGAGGTGAACATAGATTACCAACAAGA AGAGGCTTCGGTTC AATTCTTTTGG AAGATCTCGCGCATG AAATCCATAGTCTTGCTGGTGTAAGGATGCATAAACTAAAT GTTTGTGAGTGGGAAGTGAACTTCGGATATCATCTCCCG GGAAAGCTAATGGTTTATGGAGGGTGGCAGTTACTAATGT GACTGGTCATACCTGTTCCGTACATGTTTATCGTGAATTGG AAGATAGCAACCTACATGAAATGGTCTACCATT CAGTATCT GTT CACGGCCCCCACCATGGGGTACCTGTGAATGCACCCT ATCAACCACTCGGTGGCATCTCCCGTAAGCGACTTCAGGCC ATGAAGAGTAGCACACATACTGTTACGATTTTCCACTGGC TTTCTCAACTGCCCTGAAGCAATCATGGGCATCGGAAGCTC CGGATGTCAAGAAACCCTCGGACAAAGCACTTTTGAAAGT AACCGAGCTAGCATTTGCTGATCCAAAAGGCACATGGGGA ACTCCGCTTGTTCCAATAAATCGCAAGCCTGGTATGAACGA TGTTGGCATGGTAGCCTGGTACTTGGA AATGTCCACCCCC GAGTTCCCTAACGGAAGAACAATAATGGTTGTAGCTAATG ATGTTACCTTCAAGGCCGGATCTTTCGGACCACGAGAAGA TGCTTTCCTTCTTGCTGTTACAAATCTTGCTTGC GCGAAGAA ACTTCCTCTTATTTATCTGGCTGCCAATTCAGGAGCTCGACT TGGTGTTGCCGAAGAGCTAAAATCCTGCTTTAAAGTTGGCT GGTCGGATGAGTCAAACCCCGAGAGTGGATTT CAGTATGT CTACTTAACCCCTGAAGATTACGATCGTATAGGATCGTCAG TCATAGCCCACGAGTTAAACTCGAAAGTGGAGAAAAAAG ATGGGTTATAGACACCGTTGTCGGTAAGGAGGACGGATTA GGTGTGAGAAATCTATCAGGAAGTGGTGCTATAGCCAGTG CATACTCAAGGGCTTACAAGGAAACATTTACTCTGACTTTT GTAACCGGTAGAACGGTCGGTATTGGTGCCTATCTTGCTC GTCTTGGGATGCGTTGTATACAGAGGCTTGACCAGCCTAT AATTCTCACGGGTTTTTCTGCGTTAAATAAACTTCTCGGTC GGGAGGTTTACAGTTCACACATGCAACTTGGTGGACCGAA GATAATGGGCACAAACGGGGTAGTTCATCTTACAGTTTCC GATGATCTTGAAGGCATTT CATCTATCTTGAAGTGGCTGAG CTATGTTCCACCCTATTCAGGTGGTGA ACTTCCGATTTCTCG GTGTTTAGACCCTCCCGAAAGACCGGTTGCGTATTTGCCTG AAAATTGTTGTGATCCTCGTGGGGCTATATCTGGTACGGTT GACTCCGCCGGTAAATGGTTTGGGGGTATTTTCGACAAGG ATAGTTTTGTGGAAACCTTAGAAGGATGGGCACGAACAGT TGTCACGGGAAGGGCTAAACTCGGAGGAATTCCAGTTGGC ATAGTTGCTGTTGAGACGCAGACTGTTATGCAAGTAATCCC AGCAGATCCCGGTCAACTCGACTCACATGAGAGAGTCGTA CCACAAGCAGGGCAAGTATGGTTCCAGATTCCGCATCCA AGACAGCACAAGCGCTGATGGATTTCAACCGGGAAGAACT CCCACTTTTCATTTTAGCTAATTGGAGAGGTTTCTCGGGTG GACAAAGGGATCTCTTTGAAGGGATCCTTCAGGCTGGATC CACCATAGTCGAAAATCTTAGGACTTATAATCAACCCGTTT
--	--	--	--	---

				TTGTTTATATCCCTATGATGGGGGAGCTTCGAGGAGGCGC ATGGGTGGTTCGTCGATAGTCGAATTAATTCCGACCATATA GAAATGTACGCCGACCAAACAGCTAAAGGAAATGTGCTTG AACCGGAAGGAATGATCGAGATTAAGTTCCGAACCAAGG AACTTCTCGAGTGTATGGGAAGGCTTGACCAACAACTCATC GGTCTCAAGGAAAACTAGCCGAAGCCAAGAGCTCTAATT CCTACGATAAAATCGAGCCCCTGCAGCAACAAATAAAAAGC CCGCGAGAAGCAACTATTGCCTCTTTATACTCAGATAGCCA CCAAATTTGCCGAGTTGCATGATACGTCTTTAAGGATGGCT GCCAAAGGAGTCATTAGGGACGTCTTGGAATGGAAAAGCT CGCGTTCGTTCTTTTACAAAAGATTATACAGGAGAGTTATG GAGGAATCACTCGTCAAGACTGTTGAGATGCTGCAGGTG AACGGTTGACCCATAAGTCGGCTTTGGAGTTGATCCGGAA ATGGTTCAATGAGTCAGATATTTCCGGAGAGGCTTCCGAT GCTTGGGCTGATGATGCGACCTTCTTTAAGTGGAAGGACA ATACCGCTAACTACGAGGAGAAGTTGAAAGAGTTGCGGGT TCAGAAGGTATTGGATCAGCTGTCGAATATTGGAGATTG GTAATAATTTGAGGGCTCTGCCTCAGGGTCTTGCTGCCCT ACTTCAAAGGTGGATCCATCGAGTCGAGAAGAACTAGTC GAGGAACTCCGAAAAGTGCTCACTTGATTTGCAACCGTT GATGGTGAAGTGAAACCTTCTTGTTTCATCATGGTAGAA AATATTATTAGGCAAATCTATAATTTTAGTGACATCAATTG TTTAGACAATAGTATTGAACTAATTTATTTAATTAAATTGT ATAAATAGGAGACCTTGAATTCATTGAATTAAGTGGCTTA TGCTTGCATTATTTGTATTGAATCAAATAATTATTTACATAC
34	Ambrosia trifida	cDNA Contig	2186	CAGTTGGAATGGGAATTCCTTTGGCAAATACCAGAAAT TAGACGGTTTTATGGGATGGATAATAGTGGAGGTTATGAT GCTTGGAGAAAAACATCGGCTCTTGCAACCCCTTTTGACTT TGACCAAGCAGAGTCAATTAGACCAAGGGGTCATTGTATT GCTGTTCTGTAAACGAGTGAGGATCCAGATGATGGTTTTA AGCCACCGGTGGAAAAGTACAGGAACTAGTTTTAAAAGCA AGCCAAATGTGTGGGCATACTTTTCTGTCAAGTCTGGAGG AGGCATTCATGAATTTTCGGATTCCCAATTTGGTCATGTTTT TGCATTTGGAGAGTCAAGAACGTTGGCTATTGCAAATATG GTTCTTGGGCTGAAGGAAATCCAAATTCGTGGAGAAATTC GTAATAATGTTGATTATACAATCGATCTATTACATGCTCTG GATTATAGAGAAAACAAAATCCATACAGGTTGGTTAGATA GCCGAATTGCTATGCGGGTTAGAGCAGAAAGGCCCCCATG GTACCTTTCAGTAGTTGGTGGAGCTCTTTATAAAGCTGCTG CTAGAAGTGCTTTACATGGTTTCTGACTATGTTGGTTATCTT GAAAAGGGTCAAATCCCTCCTAAGCATATATCATTGGTCAA CTCTCAAGTTTCTTTGAATATTGAGGGTAGTAAGATACACG ATTGATATGCTGAAAAGAGGACCAGGAAGTTACAGACTGA GAATGAATCAATCTGAAATTGAAGCAGAAATACATACTCT ACGTGATGGGGGTTTACTGATGCAGTTGGATGGAAATAGT CATATTATATACGCAGAGGAAGAAGCAGCTGGTACTCGTC TTCTAATTGATGGACGAACTTGCTTGCTTCAGAATGATCAT GATCCTTCAAATTGGTGGCGGAAACACCATGCAAGCTTCT

				AAGATATTTAGTCTCAGATGGTAGCCATGTTGATGCTGACA CACCTTATGTTGAGGTTGAAGTGATGAAAATGTGTATGCC ACTTCTTTGCGCGGCTTCTGGAGTTATACAATTTAAAATGTC CGAAGGTCAAGCCATGCAGGCTGGTGAGCTTATAGCAAGA CTAGATCTTGATGATCCGTCAGCTGTAAGAAAAGCAGAGC CCTTTCCTGGAAGCTTTCCTGTTCTGGGCCCACCGACCGCC ATTTGAGATAAAGTTCATCTGAAATGTGCTGCAACTCTGAA TGCTGCTCGGATGATTCTTGCTGGCTATGATGACAACATTG ATGATGTTGTACAAAATCTGCTTCTTTGTCTGGATAGCCCG GAGCTTCCTTTCCTACAATGGCAAGAATGCTTCGCAGTATT AGCAAATCGACTTGATAAAGATCTAAGAAACAAGCTAGAA TCAAAGTTTAAGGAGTACGAAGGAATTTCCACTCAACAAG CTATCGACTTCCCCGCCAAAGTTTTACGGAACATTCTAGAA ACTCACCTCGGATCTTGCTCAGAAAAAGAGAAGGTGGCCC AGGAAAGACTCATTGAACCGTTAATGAGTCTCGTTAAGTC ATATGACGGTGGTAGAGAGAGTCATGCACGCGGGATTGTT CATGCTCTTTTTGAAGAGTATTTATCTGTTGAAGAATTATTT AGTGACAATATTCAGGCTGATGTAATCGAACGTCTACGACT CCAATACAACAAAGATCTCTTGAGGATTGTTGACATTGTGC TTTCCCATCAGGGAGTTAGGAGTAAAAACAAGCTGATACT ACGACTGATGGAGCATTGTTGCTACCCTAATCCAGCTCCTT ATAGAGAGAACTCATAACGGTTTTCTGCACTCAACCACACA AGTTATTCTGAGTTAGCATTGAAGGCAAGTCAATTGCTGG AACAACTAAATTAAGTGAACCTTCGTTCAAGTATTGCAAGA AGTCTATCTGAATTAGAAATGTTTACCGAAGAAGGTGAGA ATATCGATACCCCTAAAAGAAAAAGTGCAATTAACGAAAG AATGGAGGATATCGTGAGTGCTCCTTTGGCGGTTGAAGAT GCCCTTGTTGGTCTTTTTGACCATAGTGATCACACCCTTCAA AGGCGTGTTGTTGAGACCTATGTTAGAAGATTATATCAGC CATATCTGGTGAAGGGGAGTGTTAGAATGCAATGGCACAG ATTGGGACTTATTGCATCATGGCAATTCGTGGAAGGG
35	Ambrosia trifida	cDNA Contig	1838	TAATCCTGAAGATTACAGTCGAATCAAATCGTCAGTGATTG CACATGAATTTTGTCTGGAGAGTGGTGAAACCAGATGGAT TATTGATACAATTGTAGGAAAGGAAGACGGATTAGGGGTT GAGAATTTAAGCGGTAGCGGGGCCATTGCTGGTGCGTTTT CGAAAGCATATAAAGAAACGTTACCTTAACATATGTGAC GGGAAGAACCGTTGGGATAGGAGCTTATTTGGCCCGTTTG GGAATGAGGTGCATACAACGGACCGACCAACCAATAATCT TGACCGGGTTTTCGGCCCTGAACAAGCTTTTGGGCCGAGA GGTTTACAGCTCGCAAATGCAACTTGAGAGGGCCGAAGATC ATGGGGACAAACGGTGTTGTTCAATTAACGGTTTCTGACG ATCTGGAAGGCGTTATGGCAATCATAAATTGGTTGAGCTTT GTTCCACCGTATGTTGGTGGCCCGCTTCCTGTTTTGGCAGC AGTGGACCCGGTAGACCGGCCTGTGGAGTACCAGCCTGA AACTCGTGTGATCCTCGTGCGGCTGTTTGTGGTACAGTG GATGGGAATGGGAAATGGTTAGGAGGGATTTTCGATAGA GACAGTTTTGTGGAAACATTGGAGGGTGGGCTAGGACG GTTGTAACGGGGCCGGGCCAACTTGGTGGGATCCCCGTAG

				GGGTTATTGCTGTCGAGACGCAAACAGTGATGCAAATAAT ACCTGCGGATCCTGGGCAGCTCGACTCACACGAACGTGTT GTCCCGCAAGCTGGGCAGGTGTGGTTCCCTGATTCTGCTA GCAAACTGCTCAAGCTTTAATGGATTTTAACCGCGAAGA GCTTCCGCTGTTTCATCATGGCGAACTGGCGGGGGTTTTCTG CTGGTCAACGGGATCTTTTTGAAGGAATTTTACAGGCGGG ATCGACAATTGTTGAGAACCCTTAGAACGTATAAACAGCCG GTTTTCGTTTACATCCCGAAAACCGGCGAGCTTCGTGGCG GCGCGTGGGTGGTTGTTGACAGTCGAATCAACTCGGACCA TATAGAAATGTATGCAGAAACAACCGCAAAAGGAAATGTT CTTGAACCCGAAGGTATGATTGAAATTAAGTTCCGAAACA AGGAATTGTTAGAATGTATGAACCGACTGGACCCGCAAAT CCGAAACCTCAAACAAAAATTACAAGAAACAAAATACGAC CAAACAATCACCGACCAGATAAAAGCCCGTGAGAAGCAAC TTCTGCCCATTTACACTCAGATCGCCACCAAGTTCGCGGAG CTTCACGACACATCTTCCGAATGGCTGAAAAAGGCGTGG TGAAAAAGGTTGTTGACTGGAACATTTCTCGGTTTTCTTC TACAAAAGGCTCCGCCGTCGGCTCGCAGAAGCTTCTTTAAT AAATACCACACGTGATGCCGCCGGTGACACACTTACCTACA ATGCTGCTTATGATATGATCAAGAAATGGTTTTTGGCCACG AAGACGGAAGAAGTTTGGCTTGATGATGATGTGTTTTCA CATGGAAAGATGACCCGTCTAATTACACCGATAAGTTAGC CACATTACGTACACAGAAGGTTTCGAATCAGCTATTAAAGT TTGGTGGTTCACCGTCTGATCTGGAAGCTTTACCGCAGGG GCTTGCTGCACTTCTGCAAGAGGTGGATCCAGCGACTAAA AGTAACTAATTGAAGACATCCGGCGTGTCATTGAGACTT GGCCGGCTAAATGAGAAGCCATTCGGGCAATGTATACTAT TTAGAACTACTACATGTAAGAATATTTATTTTCCTTGAATAT TTTTGTAAATAAATCACACATTTCCAATC
36	Ambrosia trifida	cDNA Contig	818	GCAGATTATTCCTGCAGATCCTGGGCAACTTGATTCACATG AACGGGTGGTCCCACAAGCTGGGCAGGTGTGGTTCCCGG ACTCTGCTAGTAAAACGGCTCAAGCTATAATGGATTTTAAC CGAGAAGAGCTCCCTCTTTTCATTATGGCCAACCTGGCGGG GGTTTTCAGCGGGTCAACGTGACCTTTTTGAAGGGATTTTA CAGGCGGGATCCACAATTGTTGAGAATCTGAGAACGTATA AACAGCCGTTTTCGTTTACATTCCAAAAACCGGTGAACTTC GTGGTGGTGCATGGGTGGTTGTGGATAGTCGGATCAATTC AGACCATATTGAAATGTATGCAGAAACCACTGCCAGAGGA AATGTTCTTGAACCCAAGGAATGATTGAAATCAAATTCCGA AATAAAGAATTGTTGGACTGCATGAGCCGACTCGATCCAC AAATCCAAATTCTTAAAGGAAAACTTAAAGAGTCCAAATAC GATCAAAGAATCGGCGACCAGATAAAAGCCCGTGAGAGA CAGCTTTTACCAATATACTCAGATCGCCACGAAATTCGC TGAGCTTCATGACACATCGTTCCGAATGGCTGAAAAAGGG GTGGTAAAAGAAGTGGTTGACTGGAAAGCTTCTCGGTTTT TCTTCTACAAAAGGCTGCGGCGTAGGCTGGGGGAGGCTTC TTTGATAAGTAGCATGCGTGATGCTGCGGGTGGGACGCTG TCGTACAAGTCGGCTTATGATATGATTAAGAAATGGTTTCT

				GGAGAGCAAAGGGGAAGCAGAGTTGTGGGTTGATGATGATGA TGCTTTTTTCACA
37	Ambrosia trifida	cDNA Contig	505	TTGATTGCTCNGTTTGGCAGTGGAAGCATGTCAGAAGCTC AAAGACTGCCTTTAAATGGAAGCAGCTTAACTACAACATT TCCTTGAGGTCTTCTGCAGCTAGATCTGCTGCCATTGATGA GTTTTGTTATGCACTTGGTGGAAATAGGCCCATTCATAATA TTCTTGTTGCAAACAATGGAATGGCTGCTGTAAAGTTTATA ACAAGTGTCAGAACATGGAGCTACGAAACATTTGGTTCAG AAAAAGCTATTTTCATTGGTCGCCATGGCTACTCCAGAAGAT ATGAGGATAAATGCAGAGCATATTAGAATCGCTGATCAGT TTGTTGAAGTCCCTGGTGGTACAAATAATAAATTATGCT AATGTGCAACTCATTGTAGAGACTGCTGAGATAACACATG TCGATGCGGTTTGGCCTGGTTGGGGTCCATGCATCTGAAA TCCCTGAACTACCAGATGCATTGGAGGCTAAAGGAATTAT ATTTCTTGGGCCACCTGCT
38	Ambrosia trifida	gDNA Contig	4795	AAATACCATTTCTTACATTATGAGGCAAATAAAAAAAAAATA TCAGTTACTTCTAAAAGTTCATTTTCATTAAATAAACAAATTA TCAAACAGCGTTCTTACGTTGGTCATTTTCTGTGCATAATGT TCTTTTTGCTTGCTATTTTATAAAGTGGAAGTGAATTGTTATA AATAGCTGTTATATTTTACTTTCTATGAGATGCATACATATG ATATTTTATAGTGTTTTGAAATCGTAAATATGATTTTATGAAA TGTTGAGGTTTTGGAAGGATTATAAGACTTGCCCAAAGGT TTGTTTTTCATTATCTAACATATTGACTTGAATTGCACTTTTG TAGGAGCTTAGTTTCAAAGCAAGCCAAATGTGTGGGCAT ACTTTTCTGTCAAGGTAAATTTATATTTACATATTTTGATGC AATTTCCCAATTCAAAAATATAAATATATTTTATTTAAAAA TTGCAGTCCGGAGGAGGCATTCATGAATTCTCAGATTCTCA ATTTGGTAAGAAAAGTGAATCTTGTTTGGTTTTAGTTTTTAA CAGTCATACTGCTGGTGTAGTTGGCTTTACACGATTCTTTG CTAAAGCATTTCGTTATCTTATTTAATTATTATTTGTACGCTT TAGGTCATGTTTTTGCAATTTGGAGAGTCAAGAGCACTGGC CATTGCAAATATGGTTCTTGGGTTGAAAGAAATCCAAATTC GTGGTGAAATCCGTACTAATGTTGATTATACAATCGACTTA TTACATGTGAGCATCTTGGTTCTTTTGCTCCCTTTGTTCCAA ATTTTATTGCCTACAAAAAGTACTCCATAATTTAAGAAATG CACAAGCAAATCAGATTTTAATCAGCAGAGTGCCAGTTTAC CCTGAATGCATCTAAAATACGGTAAAATTTTAAGATAAGTG TAATCAAGGGTGAAACTAGAAAATAATAAATTACAACAT TTCATTTCTAGAACAGGACAGTTATTATGATACAAATTTAAA AAAGAAAAGTAGACAAATTTTGAGACGGGTGCACTGTCAT GAAGTTAATAGATTACATACGTTTTTTTTTACAGAATTACTTA TGTACATGCTTCATATTGAGAAATTGATTAAATTTACAAAT TCTTTATTTCTTGACATTAGCTTTATGATTTTGATTCTTTTA CACTTAATAATTTTATTATTATTATTTCTACATTTGTAGGCTC CGGATTATAGCGAAAACAAAATCCATACAGGTTGGTTAGA TAGCCGAATTGCTATGCGGGTTAGAGCAGAAAGGCCCCCA TGGTACCTTTCAGTAGTTGGTGGAGCTCTTTATGTAAGTGG TTTGTTAATAATACTTTTCCTTTTCTATATTCACCACCGTTTA

				ATGTACTCTTGTCTTACTGTTGATTTTTGTTGACCTCAGAAA GCTGCTGCTAGAAAGTGCAGCCATGGTATCAGATTATGTTG GTTATCTTGAAAAGGGTCAAATCCCTCCTAAGGTATTTTGA CTTAGCATTGACCTTTATGTTGACCTCAGAATGCCCTTTGCT TAATTTTTTTTTCTTTCTTGAAGCATATATCATTGGTCAACT CTCAAGTTTCTTTGAATATTGAGGGTAGTAAGTACACGGTA AGTAATAACATAAATTTCTGTTCTTGATCTCTGTTTTTTTTA ATTATTATTTTTCTTCTAATTTATGTGTTTGTTTTTGTAAGA TTGATATGGTAAAAAAGGACCAGGAAGTTACAGATTAAA AATGAATCACTCTGAGATTGAAGCAGAAATACATACTCTAC GCGATGGGGGTTTGTTAATGCAGGTAAACATTTTTGTTTAT TTTTCAAGTTAAAGTCCTATGGGTATGGGATACATGATTTG CTTCATAAATAAAATCAAAAGATACAATATTTACAGTCATG CAAATTTGTTACATTTTTACATGTATTTACACATTTGTTTGTC ACATGCCTATATTTATATAATATTGATTGGATAATTTAATAT TGATGTTGGATGGAAATAGCCATATTATATATGCAGAGGA AGAAGCTGCCGGTACTCGACTCCTAATTGATGGACGAAC TGCTTGCTTCAGGTGTCAACAACACTCTTTTTGTTGTTGT TACTTCTTTTTGTTGTTGTTGTTATTATTATTATTATTATT ATAGATGTGGCTGTTTCTATGCATTTACTTTGAGTTGATTG ATTTAGGTCATATGTTATCTTTAATGGGTAAAAAAGTTTAG CCTAAAACGAGACGGGTGAGTTGGATCCATTAGGTTGAAA GTCACCTGTAGTTTATCTATTACGCATAATGTGATTAGACC ACCTGATTGCATTAATAAAAAAATATAAAACCCTCATTTCAAT CCAAACGGACTCGTTTAGACAATCTTCCATTTTTGACCAAT ACCCGCCCATATCCCACATCTGTTTGTTATTCACTAATTTG TTCTATATTTGGTTTAATTTGTTGTTAGAATGATCATGATCC TTCCAAGTTGATGGCAGAAACGCCATGCAAGCTTCTAAGA TACTTAGTGTCTGATGGTAGCCATGTTGATGCTGACACACC TTATGTTGAGGTTGAAGTGATGAAAATGTGTATGCCACTTC TTTCGCCGGCTTCTGGAGTTATACAATTTAAAATGTCCGAA GGTCAAGCCATGCAGGTTAGATTTAAATATCTTCTTAATAT TTATTGTTTTTGCGAAATATATACAAAAATTTCTTTTACGA ACATTAATGAAAAATCAATTCTGAATCTACATGAGAATTTA ATTTATTTATTTTTTTATATATGGACATCTTTTCTGAGTAAA ATTTTGGCATTGTAGTTGTTTTTTCTTTATTTTATAACTCTAA CTTTTCAAAAAGGTAATATCTAAGATATTTAGAGGCATAA TGAGTCACTTTTTACAATTAATATTATTCCCAATTGTTTCAG TTACAAATATTATATTGGTACGTCAGTGCTCGATTTTTTGT GTTTACACAAATTCTCTCCATAATAACAATCATATCTTTATCT TCTATACAGCATGCATACATGGGATGCACTTTTTGTCCTAA ATTTTGAACATATGAATGTTTTTATATGTAGGCTGGTGAGC TTATAGCAAGACTAGATCTTGATGATCCGTCAGCTGTAAGA AAAGCAGAGCCCTTTCCTGGAAGCTTTCCTGTTCTGGGCCC ACCGACCGCCATTTCAAGATAAAGTTCATCTGAAATGTGCTG CAACTCTGAATGCTGCTCGGATGATTCTTGCTGGCTATGAT GACAACATTGATGAAGTAATCTTGTTTTTATTTTATTCTTTT TGCCATTTAAATAACCCATATGAAATATTTTAATCAACTAAT
--	--	--	--	--

				CACAAC TTTATGTAGTGGTGAAAAATTTAACCCACAATTTA TGAACGGGTCGACTTGGGTTATGTTGATCCATAAGTGGTC AAACACAAAAATAGAAATGCTCAAAAGATAATGGTCATAT GGGTCAAGTCAGCCAAAGTGTATTCTTATGCATAAAACCTC CTAAATCATTTTTATTCAAAAAAATTAACCTCTTTTAATAAT ATAAATTTTGAATAGTATTTGATATGCTAATTATATATAA CTAAATTTAGTTTTTGAACAAGTGTTAAGGGTCAAGCAAGC CTAACTTGCTTTGATTGACACAAAATTATGCATTATTCCATA CCGGTTTTGACTCGTGACCCATCCCGCCAAGTCGTTCTTTTT TCTCACCATTAGCTTAGTTCTTCAATGAGCTTACTTTCTTTTA AATTTTTCTTTTTGTTATTTATAACATGTTTAATCTTTGATTT TAGGTTGTGCAAAACCTGCTTCTTTGTCTGGATAGTCCTGA GCTTCCTTTCCTTCAATGGCAAGAATGCTTGCAGTTCTAG CAAATCGACTTCCTAAAGATCTAAGAAACAAGGCAAATTA ATGTCTTATAATCATGTTGTTTATTTAAGTTATTATTGTAAAC ATTTTTTTCTAATTTTTAATTCTTCTATAACAGTTGGAGTCG AAGTTTAAGGAGTACGAAGGAATTTCCACCCAACAAGCTA TCGAATTCCTCCGCAAAGTGTTACGGGCCATTCTAGAAGTT AGTTTACGATCAAATACTTATAATTTGACTTTTTTCGTATTT AAATATTTAGTTTACTTTATACTATACTTTTGTAATGTTTAT GGTTAGACGCACCTTGGATCTTGCTTAGAAAAAGAGAAAG TTGCCCAAGAAAGACTCATTGAACCGTTGATGAGTCTTGTT AAGTCATATGAAGGTGGCAGAGAGAGTCATGCACGTGGG ATTGTTCATGCACTTTTTGAAAAATATTTATCCATTGAAGAA TTATTTAGTGACAATATTCAGGTGAAGTTTTTAACTGATTA GTATAAAAAATGCAAAATTTTCATATATAAACTTTATAGTAT CATATTTATTTTTCAAATTTCCATGGTGAAACAAATAACGA ATGCAAAAGCAATGTTATTACTGTGAATCATGTCTACACAT AATGCTCTTATAAGTAATTAATTTGCATGCACTTTAACATCA TACTCTTTCATGTTGAGTAAATTTTTCTTAAATGTAAAATGA AATTTTTTTCTTTAGGCTGATGTAATCGAACGTCTACGACTC CAATACAACAAAGATCTCTTGAGGATTGTTGACATTGTGCT TTCCCATCAGGTATATATGTTATTTTTAGAGGTTGCAAAAT GGACTGTGGGATGGGTTTGTCAACGGGTCAAATTTGCCA TTTTGCTAAGGGTTGATACCGGTTGGGTTGGGTTGGGTT
39	Ambrosia trifida	gDNA Contig	4587	TTTTCAAAAAAAAAAAAAATTAAAAAAAAAAATAGTGTCTACT TCTTTTTTGTATTAAATTTATTTGCACATAACTCTTTTATAAA GCAAGTCATGTTTGTACATTTTAACTTCAAAGACTCATGAC ACGAAAATAAAACGAATAAGTTAAATTTGTTTACATAATAT TGTGCTACATTTACATATATACTTGTTATCCAATAGTTAATT ATGATGATTTACATTTTTTAATTATTTGTGTTCAAAGTTTGTT TAACTCACTGGATAATCTTGGGAGTTAAGGCAAGTATGG CATTGAAAAGTAGAACCTGGGCCCTGAAACAGCGATTGA AAAAAAGCAGTGGCGATGGGTCGAACTGGTCAATTCAAA GGGTCCCTTTATCAGCAAATTACTTGGACAATTTTGACTTTT ACTTTGACCTCTTCCAATAATATAGCTTTTTTTTTATTCTTCT AATTTTAACTACAAATATACATGTTTGTCTTCTACACACTT TCAACATCTGTACATTTCTATCAGTTTGTCTACAGTATATAA

				TCGCAAGAATATTTTCGACTTATAATCATAGATATTCTGTTTG CACTTATAGCATGCAAAATACAGATGCATAGAATTTGCATA CGCCTAAAAGTGCAGAGAAAAATCATGTGAACATTCTTAT GTCCGTTTTATAAATGTTGCTCACAAATAGACAAAAATATT ACTGTTTTTTTGTATACTATGTAGAAAAAGTCATGCAAAT CACATACATATGGATTGTTTTATAACAATTACAAATTGTGT GCAGGAGAGTTGACGTAGATTCTGGGACCGAAGAGGGGTG TGGTTGAGGCACTTTTGGTGAAGTTGGCTCGTGAGATACA CACAATGGTTGGTATAAAAAATGCACCGGTTAGGTGTTTTTG AGTGGGAGGTTAAGCTTCGCATGGTGTCTTCTGGTCAAGC CAATGGTGCCTGGAGGGTGGTGGTCACTAATGTGACCGGT CATACGTGTATTGTACATGTAAGTTAAAAGGCCATTTTAGA CATTTCAACAATAGGTAAACTCTTTTTGCTCATACATGCTTA ATGTTACTCTTTGCGATTTTCATTTAGGTCTATCGGGAAATC GAGGATAATGTTGAACACAAGGTAGTTTATCATGCTACCTC GACATCAAGCCCCTTACATGGTGTATCTGTGAACACACCAT TTCAGCCTTTGAAATTACTCGATCAGAAACGTCTTTTGGCC CGTAAAAGCAATACTACTTACTGCTATGACTTTGCACTGGT AAAATTGCCATTTTGGCCTTCTACTTTTAATGCATGCATGTT CTTTTATTTAAAAGTAGTAAAATTACCATTCTGCCCTTTCGA ACTTGGATTATGGTTAATTCTTACGGATCTTGCTTTTGTATC CGCAGGCATTTGAAGCAGCCCTTGAGAATATCTGGTCATT GAAACTCCCAGGTGTCAACAAGCCCGTTGGTAAGCTTGTA AATGTGACAGAGCTCGCATTTGCTGACCCGAGAGGCTCAT GGGGTACACCGCTTGTGCAAATAAACCGTGAGCCGGGCCA GAACAATGCGGGCATGGTGGCTTGGACCATGGACCTCTGC ACACCTGAGTTTCCTCATGGAAGGACAATTTTGGTAGTTGC AAACGATGTCACGTTTAAAAATGGGTCTTTCGGCCCGATTG AGGACGCGTTTTTCGAGGCGGTCACCGAACTTGCCTGTTCC AAGAACTGCCACTCATTTACCTGGCAGCGAACTCGGGGG CCCGAATTGGGGCGGCTGAGGAGGTTAGATCTTGCTTTAG AATTGGGTGGTCCGATGAATCGAACCTGATTCAGGGTTC CAGTATTTGTACCTAACTCCTGAAGATTACAGTCGAATCAA ATCGTCAGTGATTGCACATGAATTTTGTGGGAGAGTGGT GAAACCAGATGGATTATTGATACAATTGTAGGAAAGGAAG ACGGATTAGGGGTTGAGAATTTAAGCGGTAGCGGGGCCA TTGCTGGTGCGTTTTTCGAAAGCATATAAAGAAACGTTACC TTAACATATGTGACGGGAAGAACCGTTGGGATAGGAGCTT ATTTGGCCCGTTTGGGAATGAGGTGCATACAACGGACCGA CCAACCAATAATCTTGACCGGGTTTTTCGGCCCTGAACAAGC TTTTGGGCCGAGAGGTTTACAGCTCGCAAATGCAACTTGG AGGGCCGAAGATCATGGGGACAAACGGTGTGTTTCATTTA ACGGTTTCTGACGATCTGGAAGGCGTTATGGCAATCATAA ATTGTTGAGCTTTGTTCCACCGTATGTTGGTGGCCCGCTT CCTGTTTTGGCAGCAGTGGACCCGGTAGACCGGCCTGTGG AGTACCAGCCTGAAAACCTCGTGTGATCCTCGTGCGGCTGTT TGTGGTACAGTGGATGGGAATGGGAAATGGTTAGGAGGG ATTTTCGATAGAGACAGTTTTGTGGAAACATTGGAGGGTT
--	--	--	--	--

				GGGCTAGGACGGTTGTAACGGGCGGGCCAAACTTGGTG GGATCCCCGTAGGGGTTATTGCTGTCGAGACGCAAACAGT GATGCAAATAATACCTGCGGATCCTGGGCAGCTCGACTCA CACGAACGTGTTGTCCCGCAAGCTGGGCAGGTGTGGTTCC CTGATTCTGCTAGCAAACTGCTCAAGCTTTAATGGATTTT AACCGCGAAGAGCTTCCGCTGTTTCATCATGGCGAACTGGC GGGGGTTTTCTGCTGGTCAACGGGATCTTTTTGAAGGAAT TTACAGGCGGGATCGACAATTGTTGAGAACCTTAGAACG TATAAACAGCCGGTTTTCTGTTTACATCCCGAAAACCGGCGA GCTTCGTGGCGGCGCGTGGGTGGTTGTTGACAGTCGAATC AACTCGGACCATATAGAAATGTATGCAGAAACAACCGCAA AAGGAAATGTTCTTGAACCTGAAGGTATGATTGAAATTAA GTTCCGAAACAAAGAATTGTTAGAATGTATGAACCGACTG GACCCGCAAATCCGAAACCTCAAACAAAAATTACAAGAAA CAAAATACGACCAAACAATCACCGACCAGATAAAAGCCCG TGAGAAGCAACTTCTGCCCATTTACACTCAGATCGCCACCA AGTTCGCGGAGCTTCACGACACATCTTCCGAATGGCTGA AAAAGGGGTGGTAAAAGAAGAAGTGGTGGTTGACTGGAA AGCTTCTTCTCGGTTTTTCTTCTACAAAAGGCTGCGGCGTA GGCTGGGGGAGGCTTCTTTGATAAGTAGCATGCGTGATGC TGCTGGTGACACGCTTACCTACAATGCTGCTTATGATATGA TCAAGAAATGGTTTTTGGAGAGCAAAGGGGAAGCAGAGT TGTGGGTTGATGATGATGCTTTTTTACATGGAAAGATGAC CCGTCTAATTACACTGATAAGTTAGCCACATTACGTACACA GAAGATATCAAATCAGTTATTAAGATTGGTGGTTCACCGT CCGATCTGGAAGCTTTACCGCAGGGGCTTGCTGCACTTCTG CAAGAGGTAAGTGTGTTTCTTGAATCTTGACGACTACATT CCTTTCACCATTTTGCAAGTCGAGAATAAGATTGTTTTAAT GTCGTTTTGTTTGTGTTTCAGGTGGATCCAGCGACTAA AAGTAACTAATTGAAGACATCCGGCGTGTCATTGAGACT TGGCCGGCTAAATGAGAAGCCATTCGGGCAATGTATACTA TTAGAACTACTACATGTAAGAATATTTATTTTCTTGAATA TTTTTGTAATAAATCACACATTTTCAATCATATCAAATAAT TATTCATTGTAGTCTTTTCTGTAATCGGTATTTGCGATATCT ATGTTTGAGTATTTATTAATAATTATACAAATCTTTGTTGG GCTTTGCACTTTCTGGATCAACAACCTCAGACCTCGTGATCA AGCTTTGGTGAACATGAATGAACTGCATCTGCAACAGTGA GAAAAATCTTGTTTTCCCAATCAAGTCGGGGAAACCTGAT GCGTATAGCTTGTCTAGCACTTGTTGACCCGGGTTTCGCAAG AATAAGCTGTCAAACCAAATATTATTGTTTTAGCACGCAA TTGCGGAAATTATTATGAAAACTTTTATCCGTTGTTAACC GTATAATAAATGAGTTGATGATATGTGTAGTAGTGTTAAT CGCATAAAATTACATGTTTTGTTCTCAACTGGTTTTGGCAC GTTTACTTGTAATATTATAAACAGTATTGCTGCTGCTTACTT GGACATCTCTTTTTGCAGACTACGGTATAACTCTTCCAAG GCATGGATTCCACTTGTGTCGATATCAGTAACCGCTGCAGT TAGAGAACACTCTTTAAACAAAGTATTCGCCCCGCTCATT AATATTCATGACTGACTATAGGAAATAGAAGAGCTTCTTC
--	--	--	--	--

				TTACGTGACAATTCCACTATCAAGAACTGAATTTTGGGTTG AAAAGTTGCTGCTTTTAGATTATCTTCTTCCTCAGCTAGCCA TCTTAATATCCTGCAACGAATTATAGCTTTCAAGGATGGAA ACATACATACATACATAGTTAAACTCC
40	Ambrosia trifida	gDNA Contig	2723	ATGGGGACAAACGGTGTTGTTCAATTAACGGTTTCTGACG ATCTGGAAGGCGTTATGGCAATCATAAATTGGTTGAGCTTT GTTCCACCGTATGTTGGTGGCCCGCTTCCTGTTTTGGCAGC AGTGGACCCGGTAGACCGGCCTGTGGAGTACCAGCCTGA AAACTCGTGTGATCCTCGTGCGGCTGTTTGTGGTACAGTG GATGGGAATGGGAAATGGTTAGGAGGGATTTTCGATAGA GACAGTTTTGTGGAAACATTGGAGGGTTGGGCTAGGACG GTTGTAACGGGCGGGCCAACTTGGTGGGATCCCCGTAG GGGTTATTGCTGTCGAGACGCAAACAGTGATGCAAATAAT ACCTGCGGATCCTGGGCAGCTCGACTCACACGAACGTGTT GTCCCGCAAGCTGGGCAGGTGTGGTTCCCTGATTCTGCTA GCAAACTGCTCAAGCTTTAATGGATTTTAACCGCGAAGA GCTTCCGCTGTTTCATCATGGCGAACTGGCGGGGGTTTTCTG CTGGTCAACGGGATCTTTTTGAAGGAATTTTACAGGCGGG ATCGACAATTGTTGAGAACCTTAGAACGTATAAACAGCCG GTTTTCGTTTACATCCCGAAAACCGGCGAGCTTCGTGGCG GCGCGTGGGTGGTTGTTGACAGTCGAATCAACTCGGACCA TATAGAAATGTATGCAGAAACAACCGCAAAAGGAAATGTT CTTGAACCCGAAGGTATGATTGAAATTAAGTTCCGAAACA AGGAATTGTTAGAATGTATGAACCGACTGGACCCGCAAAT CCGAAACCTCAAACAAAAATTACAAGAAACAAAATACGAC CAAACAATCACCGACCAGATAAAAGCCCGTGAGAAGCAAC TTCTGCCCATTACACTCAGATCGCCACCAAGTTCGCGGAG CTTCACGACACATCTTCCGAATGGCTGAAAAAGGCGTGG TGAAAAAGGTTGTTGACTGGAACATTTCTCGGTTTTCTTC TACAAAAGGCTGCGGCGTAGGCTGGGGGAGGCTTCTTTG ATAAGTAGCATGCGTGATGCTGCGGGTGGGACGCTGTCGT ACAAGTCGGCTTATGATATGATTAAGAAATGGTTTCTGGA GAGCAAAGGGGAAGCAGAGTTGTGGGTTGATGATGATGC TTTTTTCACATGGAAAGATGAACCAAAGAACTACAGGCAC AAGTTAAGTGAGTTACGTGCACGCAAGGTTGCAAATGAGT TATTAAGATTGGTGGTTCAGCGTCGGATGTGGAAGCGTT GGCGCAGGGGCTGGCTGCACTTCTAAAAGAGGTAACGTGT GTTTCTTGAATCTTGACGACTACATTCCTTTCACCATTTTGC AAGTCGAGAATAAGATTGTTTTTAATGTCGTTTTGTTTGT GTGTTTCAGGTGGATCCAGCGACTAAAAGTAAACTAATTG AAGACATCCGGCGTGTCATTGAGACTTGGCCGGCTAAATG AGAAGCCATTCGGGCAATGTATACTATTTAGAACTACTACA TGTAAGAATATTTATTTTCTTGAATATTTTTGTAAATAAAT CACACATTTCCAATCATATCAAATAATTATTGATTAGTCT TTTCTGTAATCGGTATTTGCGATATCTATGTTTGAGTATTG TGAACCTTTTATTAATAATTATACAAATCTTTGTTGGGCTT TGCACTTTCTGGATCAACAACTCAGACCTCGTGATCAAGCT TTGGTGAACATGAATGAACTGCATCTGCAACAGTGAGAAA

				AATCTTGTTTTCCCAATCAAGTCGGGGAAACCTGATGCGT ATAGCTTGTCTAGCACTTGTTGACCCGGGTTTCGCAAGAATA AGCTGTCAAACCAAAATATTATTGTTTTAGCACGCAATTGC GGAAATTATTATGAAAACTTTTATCCGTTGTTAACGTATA ATAAATGAGTTGATGATATGTGTAGTAGTGTTTAATCGCAT AAAATTACATGTTTTGTTCTCAACTGGTTTTGGCACGTTTAC TTGTAATATTATAAACAGTATTGCTGCTGCTTACTTGGACA TCTCTCTTTTGCAGACTACGGTATAACTCTTCCAAGGCATG GATTCCACTTGTGTGATATCAGTAACCGCTGCAGTTAGAG AACACTCTTTAAACAAAGTATTCGCCCCGCTCATTAATAT AGGAAATAGAAGAGCTTCTTTCTTACGTGACAATCCACTA TCAAGAACTGAATTTTGGGTTGAAAAGTTGCTGCTTTTGA TTATCTTCTTCCTCAGCTAGCCATCTTAATATCCTGCAACGA ATTATAGCTTTCAAGGATGGAAACCTACATACACACATAGT TAAAATCCGATGGTTTGTACCTTTCTTTGATGTAATTTGAAT TTGAGAAATAAATAGCAGAATCAATCCTAACAATTACAACA CCCGGAATTTTATTCGCTTCTGGATACTGTCCGATATTCCG GTACACGCTGGTCATCGGAATCTTCCCAAGAAGCGCGGTT CGTGGGCGTGTAAGTTGCAGAAGAATCTTAGCAAAAAGATA TCGCCACCTGATTCAACAATCTTATTAACAAAAGCTCAAA ATTGACCTAAAAACAATGTTTTCATAACCAGTTCAATGGTT GGGCCCAAATGCCATCATAAATAATTTATTTATTTATATGA ATAATATATAAACTATAAAGTAAGTAGTAAATGGATCACTA AATGAT
41	Ambrosia trifida	gDNA Contig	2408	GTTGACCTGAAACATGTTTTGTTTTCAAAAGTTTTAGATA ATTTGTTAGTCAAATATGATGAAATATACAAATTATTATTTT AATAATAATCCAGTTTTTTTTAAAAAGATATAGGTGATATGT GTACAGTAAAAAGATACAATTTGGTAGGTATTTCAACAAGTT CAGGCGCTAGAAACATGTCCTTTTAAGATTTTGTCTGCCT TGTACCTTTTGAACGTTTAAAGCAGAACCCGACTCGACCCA TTCATGAGTAAATGGGTTGAAATTGCCGTCTCTAGTTTTTC TGGTTTTATGTTTCCACTTATTAATATTAAATAAAATTTATT CTGAAGTCGATATTTTAAATTTAACAGGGAGTTAGGAGTA AAAACAAGCTGATACTACGACTGATGGAGCATTTGGTCTA CCCTAATCCAGCTCCTTATAGAGAGAACTCATACGGTTTT CTGCACTCAACCACACAAGTTATTCTGAGGTCAATATCGTC ATTTAACATACTCAAAGGCTCTAACTAACTACTTTTTTTTAT TGGCATATTTAACTTCATTATCATTAAATTTAACAGTTAGCAT TGAAGGCAAGTCAATTGCTGGAACAACTAAATTAAGTGA ACTTCGTTCAAGTATTGCAAGAAGTCTATCTGAATTAGAAA TGTTTACCGAAGAAGGTGAGAATATCGATACCCCTAAAAG AAAAAGTGCAATTAACGAAAGAATGGAGGATATCGTGAG TGCTCCTTTGGCGGTTGAAGATGCCCTTGTTGGTCTTTTTG ACCATAGTGATCACACCCTTCAAAGGCGTGTTGTTGAGACC TATGTCAGAAGATTATACCAGGTATGCAGTTGGTTTTTCTC TTAAACATATACTATCTATCCATTTAAGTCGCCATTGACTAA TACAGCTCAATAAAAAAAGTTAAAAGGATGGATGTGATTA ATTTGTAAATATCAAAATCAAGTCTATTGTATATTGATATTT

				GGTATGATAAACAAGGGGCAAATGAGTAATTGTACCTTGT AATTCTATTTTCAGCCATATCTTGTGAAGGGGAGTGTTAGA ATGCAATGGCACAGATTGGGACTTATTGCATCATGGCAAT TCGTGGAAGGGCATACTGAGGAATTGAATGCTTCTGGACC ATTGGTTGATAGGAAATGGGGAGCTATGGTTATTATTA TCTCTTCAATTTTGGCCGATGTGATAAGTGCAGCTCTTAAA GAAACGACTCAAACGGGTCAGCAGGTCATACTATTACTA ACCATGGTAACATGATGCACATTGCATTGGCCGGCATCAA CAACCAAATGAGTTTGTCTCAAGACAGGTTTGACCATACAA GTCAACATCATCATGTTTGGTTATAAATCAATTTATAAAAAT TCATTATCTCTAGAATTGAAACCAAATTATATTTATATATTT GATATTAATAACGCGCATATTTTCTTATAAACTGCAGT GGTGATGAGGACCAGGCCCAAGAAAGAGTCAATCGGTTA GCAAAAATATTAAAGGACAAAGAACTAAGCTCGAGTCTAA AAAACGCAGGGTATGATGTTATAAGTTGTATAACAAAG AGACGAAGGTAGGGGCCCAATGAGACATTCATTTATTGG TCAGAAAGTAATCGTTATTATGTGGAAGAGCCATTATTGCG CCATGTGGAACCTCCATTATCTATTTACCTTGAAGTGGTTG TACTCATAGCCCGCTTCATTTTGTTCCTTTCTTAAATAGT AATAATACTAAGGACAAATGTCCACAAAAAGTGAAATCGA GTCAGCTTTTAGCACATTAGGCTTCCACGTTATCGTTTTAC ATGATTGGATGCCATGTCAGCAGTTTAAAGCATTTTGTATG CCGTGTCAACTTATGCAACCTAACTCTTGCAGTAACACAC ATTAAAGTGTTGCAATAGCGACACATTTTGAAGAGAAGT AAATTTTATAAATACTCATAATTTTGAAGGTTTCGGTAAA AAAGTATTAGTTTCCAGAAAGGTCTAAAATTATTTATGTCA CTATATATCTTGGCATTTTTATCCCACTCAGTGACCAGTTT TGTTGTGTTGCTAAATTTCAATTTTGGTGCAGCGACCCTCTT TTAAAGACTTAGTGAACAACGGGGACATTCGATTACCATT AATGACATATTCCTAATATTAGAAGAAAAGTTATATAAAT TTCCATGTATTATAAATTGGTTATTTTTCAGGATAAACTGA AGGGCTATGAGAATATACAGTACACTCCATCGCGCGACAA ACAATGGCACATGTATACGGTTGATGCGAAACCACTTCCG GTTGCGAGAATGTTTCTTCGAGCACTTGTAAGACAACCAAC AAAAGAATGGTTTTCGCCCTCGGGATACCATGATTC
42	Ambrosia trifida	gDNA Contig	1771	TGGCGGCCGTAAAGTTTATAAGAAGTGTGAGAACATGGA GTTATGAAACATTTGGTTCAGAAAAAGCAATTTTGTGGTA GCCATGGCGACTCCGGAGGATATGAGGATAAATGCAGAG CATATTAGAATTGCTGATCAATTTGTGGAAGTCCCAGGTG GTACAAATAATAATAATTATGCAAACGTGCAACTCATTGTG GAGGTATATAGGTTTCATACATATATAATTTATTTAGGCAT CAACTGATGTATTTTATGAACCACCATACACGCCATTTTATT GCAAAGTAACCATTGTTCTTTAGAACAGTCTTATTTGACTT TTCGGTCAAATTATCTGTTTATAAACGTTCAATTCCTGCAACG ATAAGTCAGATATGATGGTTCAAGAAGTCGGTCACTAAAC AAGGGTTGGATTTACCTTCACTTATTCAGAAGTCCTTAAAA TATTACATTTGCTCTCTACAAAGTATTTTTTACTATGAATTTT CAAGTGGACTACATCAATTTTGTAAATTAATACGAAATTACA

				AATGTGTGTAACCTTTTGATGAAAAATCCTACTTTGACATAC CTAACTATATCCTTAAGTTATAACATTGATATTGCAATGCTT AACTTTTGAGGAAAATCATTACCTACATCATGTTTAATGAT TGCAGACTGCTGAGATAACACATGTTGATGCTGTTTGGCCT GGTTGGGGTCATGCATCTGAAATCCCGGAACTACCAGATG CATTGGAGGCTAAAGGAATTATATTTCTTGGGCCACCTGCT GCTTCCATGGCAGCTTTAGGAGATAAAAATCGGTTTCATCGTT GATTGCACTAGCAGCTGATGTGCCAACACTTCCATGGAGT GGCTCTCATGTAAGTTTTGCCACTTTTATAGTCAGTCCTTTT TAGTTTTTTCAGAAAAAAAACACTCATTTTCATACCTCTTGTT TTTCAAAAACTGGTTCCTAATGCTACTTATTTTTTAAAAAC TGCATCTTTACTAGTCTTTATAACACCTCATCTTTTATAGCTC GTATTCTTTTACAATTGCACCTATAAACCTCAAAAATCTCAT CTTTATTCTGCTTATTATATAAAATATCCTGCTTTAGGTGAA AATTCCTGTGGAAAGCTGTTTGGCCACAATCCCAGATGAT GTATATAGAAAAGCTTGTGTATCTACAACTGAAGAAGCAA TTGCTAGCTGTCAGTTTATTGGTTATCCGGCTATGATCAAG GCATCATGGGGCGGAGGTGGCAAAGGCATAAGAAAGGTT TGTTTCCTTCAACTTGACCTTTAAAAGTCAATAAACTAGTTT TGACCTCAAAGCACTTATTTATTTTTGTTAATTTAGGTGCAT AATGATGAAGAAGTCAAGGCACCTTTCAAGCAAGTTCAAG GTGAAGTGCCAGGTTACCTATATTCATTATGAAAGTTGCC TCCCAGGTGAGAAAACGTTTGAATAACTCATCTGATCTTAA TGTGTGACTTAAAACCTATTATAACACTATTTAAATATTATT TTAAAACCAGAGCCGGCATCTAGAAGTTCAGCTACTGTGT GATCAGCATGGCAATGTAGCAGCCTTACATAGTCGTGATT GCAGTGTTCAAAGACGACACCAAAGGTAGTCTGAGAATC GCAGTCTTTCTAAAAAATAACAAATCTTGATTTTAATATAAT TTTTATATTTTTTAAGATTATCGAGGAGGGTCCAATTACC GTAGCTCCACCTGACACAATAAAGAAGCTTGAGCAAGCAG CAAGAAGA
43	Ambrosia trifida	gDNA Contig	1320	CATGATGAGTGATGACATATGTGGTCTTTCCTCTAATTCT TGCAATTGTCGATGCTTTCGACTCTTGTCTTCTTTACGGTAA TTAGTCTTCTTCCCCTTTCCTCCCAAATTTAAAAAAGAACTA AAGTTTGATAGCTCTGTTTGGCAGTGGAAGCATGTCAGAA GCTCAAAGACTGCCTTTAAATGGAAGCAGCTTAACTACA ACATTTCTTGAGGTCTTCTGCAGCTAGATCTGCTGCCATT GATGAGTTTTGTTATGCACTTGGTGGAAATAGGCCCATTC TAATATTCTTGTTGCAAACAATGGAATGGCGGCAGTAAAG CTTATAAGAAATGTGAGAACATGGAGGTATGAAACATTTG GTTCAAAAAAGCAATTTTGTGTTAGCCATGGCTACCCC GGAGGATATGAGGATAAATGCAGAGCATATTAGAATTGTT GGTCAATTTGTAGAAGTGCCTGGTGGAAACAAATAATGATA ATAATGCAAACGTGCAACTCATTGTAGAGGTATATAGGTTT CATACATATATAATTTATTTAGGCATCAACTGATGTATTTTA TGAACCACCATACACGCCATTTTATTGCAAAGTAACCATTG TTCTTTAGAACAGTCTTATTTTGACTTTTCGGTCAAATTATC TGTTTATAAACGTTTCATTCTGCAACGATAAGTCAGATATG

				ATGGTTCAAGAAGTCGGTCACTAAACAAGGGTTGGATTTA CCTTCACTTATTCAGAAGTCCTTAAAATATTACATTTGCTCT CTACAAAGTATTTTTTACTATGAATTTTCAAGTGGACTACAT CAATTTTGTAATTAATACGAAATTACAAATGTGTGTAACCTT TTGATGAAAAATCCTACTTTGACATACCTAACTATATCCTTA AGTTATAACATTGATATTGCAATGCTTAACTTTTGAGGAAA ATCATTACCTACATCATGTTTAATGATTGCAGACTGCTGAG ATAACACATGTGCGATGCGGTTTGGCCTGGTTGGGGTCATG CATCTGAAATCCCTGAACTACCAGACGCATTGGAGGCCAA AGGAATTGTATTTCTTGGCCCCCTGCTTCATCCATGGCGG CTTTAGGAGATAAAATTGGTTCTTCTTTGATTGCACAAGCG GCTGCTGTACCAACACTTCCATGGAGTGGTTCTCATGTAAA TATTGCCACTTTTATAGTCGGTCCTTTTTAGTTTTTTCAGAA AAAAAAACTCATTTACATCCTCTTGTTTTTCAAAAACTGG TTCCTAATGCTACTTATTTTTTAAAACTGCATCTTATTTTA TTTTTT
44	Conyza canadensis	cDNA Contig	7026	ATGAATTTTCGGGCATTTGATCTGAAGCTCAACATTTTTCT GGGCGATTCAAATAAGCGTTTTACTGTTACAAAAAGTTTCG TCTCAACGGGTGACCACTACACGACTTCTGATAACACCAAT CCGACCAGTCTTACAAAGGTGAAGGTGAAGAAACATGTGA AGAGGGATAAATTTGGAGAAAGAATGGCATCACTAAAAC AGATAGTGTCAACCTATGGCAAGGATTTTGCTAAACATAGT TGTAAGGGTTATAGTTACAACACAATAGAATGGAGTCTAG ACTTGGACCATTGTGTTTTAGAGAAGAAGGGAATCGAACG CAAAGTTTGCGTTGTGATAGTCAGGAGACAGAAAGGGCA ATTTGTTTCTGTTCTTTTTAAGTTAGATAGTGGCACCATGTC AGAAGCTCAAAGAATGCTTCTAAGTGGAAGTTTCAATTATT ATGGTAATGGCATTGTAAATGGGGCGATTTCACTGAGGTC TTCTGCTAGTAGATCTGCAATTGATGAATTTTGTAATGCAC TTGGAGGCACCAGGCCAATCCAAAGTATTTTAATTGCAAAT AATGGAATGGCGGCTGTAAAGTTTATAAGAAGTGTGAGG ACATGGAGTTATGAAACATTTGGCTCAGATAAAGCTATTTT GCTGGTAGCCATGGCTACACCGGAAGATATGAGGATAAAT GCCGAGCATATTAGAATCGCTGATCAGTTTGTTGAAGTCCC TGGTGGTACAAATAATAAATTATGCGAATGTGCAACTCA TTGTAGAGACTGCTGAGATAACACATGTTGATGCTGTTTG GCCTGGTTGGGGCCATGCATCCGAAATCCCTGAGCTGCCT GATGCATTGGAAGCAAAAGGTATTGTATTTCTTGGGCCAC CAGCTTCCTCCATGGCAGCTTTAGGTGATAAAATTGGTTCT TCTTTGATTGCACAAGCTGCTGATGTACCGACACTTCCTTG GAGCGGTTCTCATGTAAAAATTCCTGTGGATAGCTGTTTGG ACACACTCCCGGATGATGTATATAGAAAAGCGTGTGTGCA TACAACAGAAGAAGCAATTGCTAGTTGTCAAGTTGTTGGT TATCCAGCAATGATTAAGGCATCATGGGGTGGAGGTGGCA AAGGCATAAGAAAGGTGCATAATGACGAAGAAGTCAAGG CACTTTTAAAGCAAGTTCAGGGTGAAGTGCCTGGTTCCCCT ATTTTCATTATGAAAGTTGCTTCTCAGAGCCGACATCTAGA AGTGCAGCTACTATGCGATCAACATGGGAATGTAGCAGCT

				TTGCATAGTCGTGATTGCAGTGTTCAAAGGCGACATCAAA AGATTATTGAAGAGGGGGCCAATAACCATAGCTCCACATGA CACAATAAAGAAGCTTGAGCAAGCGGCGAGAAGATTAGC AAAGTCGGTTAATTATGTTGGAGCAGCCACTGTAGAGTAT TTGTATAGCATGGAACTGGAGACTATTACTTTTTGGAGCT CAATCCCCGGTTACAGGTTGAGCATCCAGTCACAGAGTGG ATAGCGGAAATCAATCTACCTGCAGCACAAGTTGCGGTTG GAATGGGCATTCTCTTTGGCAAATACCAGAAATAAGACG ATTTTATGGAATGGACAATAGTGGAGGATACGATGCTTGG AGGAGAACATCTGCTCTTGCAACTCCATTTGACTTTGACAA GGCAGAGTCTATCAGCCCAAAGGTCATTGTATTGCTGTA CGTGTAACAAGTGAGGACCCAGATGATGGATTTAAGCCCA CTAGTGGAAAAGTTCAGGAGCTAAGTTTTAAAGCAAGCC AAATGTCTGGGCATACTTTTCTGTCAAGTCCGGAGGAGGC ATTCATGAATTCTCAGATTCTCAATTTGGCCACGTTTTTGA TTTGGCGAGTCAAGACCTTTGGCTATTGCAAATATGGTTCT TGGGCTGAAGGAAATTCAAATTCGTGGCGAGATCCGTACG AATGTTGATTATACAATTGATCTGTTACATGCTCCTGATTAT AGAGAAAATAAAATACATACCGGTTGGTTAGATAGCCGAA TTGCTATGAGGGTTAGAGCAGAAAGGCCCCCTTGGTATCT TTCAGTAGTTGGGGGAGCACTTTATAAAGCTGCTGCTAGA AGTGCAGCCATGGTCTCGGACTATGTTGGTTACCTTGAAA AGGGCCAAATCCCTCCTAAGCATATATCATTGGTCAACTCA CAAGTTTCTTTGAATATTGAGGGCAGCAAATACACGATTGA TATGGTAAAAAGAGGGGCCAGGAAGTTACAGATTGAGAAT GAATCAATCCGAGATTGAAGCAGAGATACATACACTACGT GACGGAGGCTTATTGATGCAGTTGGATGGGAATAGTCATA TATTATACGCCGAGGAAGAAGCTGCCGGTACTCGCTTGCT TATTGATGGACGGACTTGCTTGCTTCAGAATGATCATGATC CTTCCAAGTTGATGGCTGAAACACCATGCAAACCTTCTAAGG TACTTGGTCTCAGATGATAGCCATGTTAATGCTGACACACC GTATGCTGAGGTTGAAGTTATGAAGATGTGTATGCCACTC CTTTCACCGGCTGCTGGAGTTATACAATTCAAGATGTCAGA AGGTCAAGCCATGCAGGCTGGTGAGCTTATAGCAAGGCTA GATCTTGACGATCCGTCAGCTGTAAGAAAAGCAGAGCCTT TCAATGGAACTTTCTCTTCTTGGGCCTCCAACGGCCATG TCAGACAAAGTGCATCAGAAGTGTGCTGCAACTTTAAATG CTGCTCGAATGATTCTCGCAGGCTATGATCATAACATTGAT GAATTGGAATCCAAGTTTAAGGAGTACGAAGGAATTTCCA CACAACAACTATTGACTTTCTGCTAGAGTTCTACGGGTC ATTCTTGAAACCCATCTTGGATCTTGCTCAGAAAAAGAAAA GGGAGCCCAAGAAAGGCTCGTTGAGCCATTAATGGGTCTT GTAAAGTCATATGAAGGGGGAAGAGAAAGTCATGCACGT GGGATCGTTCATGCTCTATTTGATGAATATTTATCTGTTGA AGAGTTGTTGAGCGACAACATTCAGGCTGATGTAATCGAA CGTCTTCGACAACATAACAAGAAAGATCTCTTGAGGATTGT CGACATTGTCCTTTCCCATCAGGGTGTTAGGAGTAAAAACA AATTGATACTACGGCTGATGGAGCATTGTTTACCCCAAT
--	--	--	--	---

				CCGGCTGCGTATAGGGAGAACTGATACGATTTTCTCAAC TTAACCACACAAGTTATTCTGAGTTAGCACTGAAGGCAAGT CAACTTTTAGAACAACTAACTAAGTGAACCTTCGTTCAAG CATTGCGCGAAGTCTTTCTGAATTAGAGATGTTTACTGAAG AAGGTGAAAATATGGATACCCCTAAGAGGAAGAGTGCCAT TAATGAAAGAATGGAGGATATTGTGAGTGCTCCATTGGCA GTTGAAGATGCCCTTGTTGGTCTTTTTGACCATAGCGATCA CACCCTTCAAAGGCGTGTTGTTGAGACCTATGTTCGAAGAT TATATCAGCCATATCTCGTGAAGGGGAGTGTTAGAATGCA GTGGCACAGATCCGGACTCATCGCTACATGGCAATTTATA GAAGGACTCATTGGAGAAGTTAATGTGCCTGACTATGAAC AGAATGAAGCTCCCTTGGAAGACAAGAAATGGGGAGCTA TGGTTATTATTAATCTCTTCAATTTTTGCCTGATGTCATAA GTGCATCTCTTAAAGAAACGAGTCATAACCTTCCCAGAACA AGTCAGAATGGGTTTGCTGGTCATAGTAACCATGGTAATA TGATGCACATTGCTTTGGCCGGCATAAATAACCAGATGAG TTTGCTTCAAGACAGTGGTGATGAGGATCAGGCTCAAGAG AGAGTCAACAGGTTAGCAAAAATACTCAAAGATAAAGAAG TAAGCTCGAGTCTTAAAAACGCAGGGTATGGAGTGATCAG TTGTATAATACAAAGAGATGAAGGGAGAGGGCCCATGAG ACACTCATTTCACTGGTCAGAAGAGAATCATTATTATATTG AAGAGCCATTATTGCGTCACTTGGAGCCTCCATTATCGACA TATCTTGAACCTGGACAACTTAAGGGCTATGATAATATAAA GTACACTCCGTCGCGTGACCGTCAATGGCACATGTATACTG TTGATGCTAAACCACTTCCGGTACAAAGAATGTTTCTTAGA ACTCTTATAAGGCATCCAACAAAGGAATGGTTCTCGCCCTC AGGTTACCAAGGTTTCAAGAGATGAGGGCCACGGTCTCAG TTAAATCTCCCTTTTACATCAAGGAGCATCTTGAGATCATT GTGACGGCTATGGAGGAGTTGGAACCTTCATGTTTATAATG CTACTGTCAAGTCTGACCATGCTCATATGTACCTATATGTAT TGAAGGAGCAACAAATTGGTGATCTTGTTCCATACACAAC GAGAGTGGATGTAGATTCTGGGACAGAAGATTGCGTGGT TGAGACACTTTTGGTAAGGCTGGCTCGTGAAATCCATTCAA TGGTTGGTGTAAGATGCACCGGTTGGGAGTTTTTGAGTG GGAGGTGAAGCTTTGCATGGCATCATCGGGTCAAGCCAAC GGTGCGTGGAGGGTTGTGGTCACAAATGTGACTGGTCATA CCTGCGTTGTGCATGTATATCGTGAACCTGGAAGATACTGG TTTGCACAAGGTGTATCATGCTACCTCTACATTGGGTCTTT GCATGGCGTACCTGTGAATACACCCTTTCAGCCTTTAGGAT TACTTGATCAGAAGCGTCTTTTGGCAAGGAAAAGCAATAC TACGTAAGTCTACGACTTTGCACTGGCATTGAAGCAGCTC TTGAGAATATCTGGGCGTCGAAAGTCGTAAGTGATAGCAG GCCTAAGGGTAACTTGTGAATGTGACGGAGCTCATGTTT GCTGAGCCAAGTGGCTCATGGGGAACTCCCTTGTTGCAG TAAATCGTGAGCCAGGGCAAAACAAGGTGGGCATGGTGG CGTGGACTATGGACCTCTGCACTCCTGAGTTTCCTGATGGA AGAACGATTTTGGTAGTAGCAAACGATGTTACGTTCAAAA ATGGATCTTTTGGTCCTCTTGAGGATGCCTTTTTGAGGCA
--	--	--	--	--

				GTTACTGATCTCGCTTGTGCCAAGAACTGCCACTAATATA CTTGGCAGCAAACCTCGGGGGCCCGTATCGGAGCGGCTGA GGAAGTCAGATCTTGCTTTAGAATTGGGTGGTCTGATGAG TCGACTCCTGAATCGGGATTCCAGTATTTGTATCTTACTCCT GAAGATTATACCCACATCAAATCATCTGTAATAGCTCATGA GGTTCATCTATCAAATGGCGAAACAAGATATGTCATCGATA CTATTGTGGGAAAAGAAGACGGACTCGGGGTTGAAAATTT GAGTGGTAGCGGGGCAATTGCTGGTGCCTATTCGAAAGCA TATAAGGAAACGTTTACATTAAACATATGTTACTGGAAGAAC AGTTGGGATAGGCGCATATCTGGCACGTCTTGGGATGCGG TGCATACAGCGGCTTGATCAACCGATTATATTAACGGGTTT TTCTGCACTGAACAAGCTTTTGGGCCGAGAGGTTTATAGCT CACAGATGCAACTAGGTGGGCCTAAAATTATGGCTACGAA TGGTGTGTCCATTTAACGGTGTCCGATGATCTCGAAGGTG TCTCAGCTATCTTGAATTGGTTGAGCTTTGTTCCACCTTATG TCGGTGGCCCACTTCCTGTTTTAGCACCTGTGGATCCACCA GAAAGGCCCGTTGAGTACCTCCCTGAAAACATGTGATCC TCGGGCAGCTATTTGTGGGGTCGTGGATAGCAACGGTGAA TGGGCTGGTGGGATTTTCGATAGAGACAGTTTTGTGGAGA CATTGGAAGGTTGGGCGAGGACAGTCGTAACGGGTCGTG CCAACTTGGCGGGATCCCAGTCGGGATCGTTGCTGTTGA GACACAAACAGTGATGCAAGAAATACCTGCAGATCCCGGG CAGCTTGATTCACACGAACGTGTTGTTCTCAAGCAGGTCA GGTCTGGTTCCCGGATTCCGCCAGCAAAACAGCTCAGGCA TTGATGGATTTCAACCGAGAAGAGCTCCCACTTTTCATCAT GGCTAACTGGCGAGGCTTTTCTGCAGGTCAGCGGGATCTT TTTGAAGGGATTTTACAAGCAGGGTCAACAATTGTTGAGA ATCTCAGAACATATAACCAGCCTGTTTTTGTATACATCCCG AAAACCTGGAGAACTTCGTGGCGGTGCATGGGTGGTTGTCTG ACAGTCGAATCAATTCAGATCATATAGAAATGTATGCAGA AACCACAGCAAAAGGAAATGTCCTTGAACCTGAAGGTATG ATTGAGATTAAGTTCCGAAACAAAGAATTGATAGACTGTA TGGGTCGTCTAGATCCACAGATTCGAAGCCTTAAAGAAAG ACTTCGAGAAACAAAGTACGATCAAACGATCGTCCAACAG ATAAAATCTCGTGAAAAACAGCTTTTACCGATTTACACTCA AATTGCTACCAAATTCGCTGAACTTCATGACACATCATTGC GAATGGCTGAAAAAGGTGTGGTCAAACAAGTTGTTGACTG GAAAGTATCTCGGTTTTTCTTTTACAAAAGGCTTCGTCTGTA GGCTCGCAGAGGCTTCCTTGATCAGTAGTGCTCGTGAAGC TGCTGGTGATACTCTTTCCTACAAGTCTGCTCATGAGTTGA TTAAGAAATGGTTTTTGAATCGAAAACCTGAAGATTTATG GCTTAGTGATGATGCTTTTTTCACTTGAAAGACAATCTGA TGAACATAATGACAAGTTAGCCAAGCTACGTACTCAGAA GCTCTTGATCAGTTATTAAAGATTGGTAATTCACCATTGG ATCTACAAGCTTTACCACAAGGCCTCGCCGCACTTTTGCAA GAGGTGAACAACTCTCTTTTATTTTCCCTTAG
45	Conyza canadensis	cDNA Contig	6912	ATGAATTTTCGGGCATTTGATCTGAAGCTCAACATTTTCC GGGCGATTCAAATAAGCGTTTTACTGTTACAAAAAGTTTCG

				TCTCAACGGGTGACCACTACACGACTTCTGATAACACCAAT CCGACCAGTCTTACAAAGGTGAAGGTGAAGAAACATGTGA AGAGGGATAAATTTGGAGAAAGAATGGCATCACTAAAAC AGATAGTGTCAACCTATGGCAAGGAGTCTAGACTTGGACC ATTGTGTTTTAGAGAAGAAGGGAATCGAACGCAAAGTGGC ACCATGTCAGAAGCTCAAAGAATGCTTCTAAGTGGAAGTT TCAATTATTATGGTAATGGCATTGTAAATGGGGCGATTTCA CTGAGGTCTTCTGCTAGTAGATCTGCAATTGATGAATTTG TAATGCACTTGGAGGCACCAGGCCAATCCAAAGTATTTTAA TTGCAAATAATGGAATGGCGGCTGTAAAGTTTATAAGAAG TGTGAGGACATGGAGTTATGAAACATTTGGCTCAGATAAA GCTATTTTGCTGGTAGCCATGGCTACACCGGAAGATATGA GGATAAATGCCGAGCATATTAGAATCGCTGATCAGTTTGT GAAGTCCCTGGTGGTACAAATAATAAATTATGCGAATG TGCAACTCATTGTAGAGACTGCTGAGATAACACATGTTGAT GCTGTTTGGCCTGGTTGGGGCCATGCATCCGAAATCCCTG AGCTGCCTGATGCATTGGAAGCAAAAGGTATTGTATTTCTT GGGCCACCAGCTTCCTCCATGGCAGCTTTAGGTGATAAAA TTGGTTCTTCTTTGATTGCACAAGCTGCTGATGTACCGACA CTTCCTTGGAGCGGTTCTCATGTAAAAATTCCTGTGGATAG CTGTTTGGACACACTCCCGGATGATGTATATAGAAAAGCG TGTGTGCATACAACAGAAGAAGCAATTGCTAGTTGTCAAG TTGTTGGTTATCCAGCAATGATTAAGGCATCATGGGGTGG AGGTGGCAAAGGCATAAGAAAGGTGCATAATGACGAAGA AGTCAAGGCACTTTTTAAGCAAGTTCAGGGTGAAGTGCCT GGTCCCCTATTTTCATTATGAAAGTTGCTTCTCAGAGCCG ACATCTAGAAGTGCAGCTACTATGCGATCAACATGGGAAT GTAGCAGCTTTGCATAGTCGTGATTGCAGTGTTCAAAGGC GACATCAAAAGATTATTGAAGAGGGGGCCAATAACCATAGC TCCACATGACACAATAAAGAAGCTTGAGCAAGCGGCGAGA AGATTAGCAAAGTCGGTTAATTATGTTGGAGCAGCCACTG TAGAGTATTTGTATAGCATGGAACTGGAGACTATTACTTT TTGGAGCTCAATCCCCGGTTACAGGTTGAGCATCCAGTCAC AGAGTGGATAGCGGAAATCAATCTACCTGCAGCACAAGTT GCGGTTGGAATGGGCATTCTCTTTGGCAAATACCAGAAA TAAGACGATTTTATGGAATGGACAATAGTGGAGGATACGA TGCTTGGAGGAGAACATCTGCTCTTGCAACTCCATTTGACT TTGACAAGGCAGAGTCTATCAGCCCAAAAGGTCATTGTATT GCTGTACGTGTAACAAGTGAGGACCCAGATGATGGATTTA AGCCCACTAGTGGAAAAGTTCAGGAGCTAAGTTTTTAAAG CAAGCCAAATGTCTGGGCATACTTTTCTGTCAAGTCCGGAG GAGGCATTCATGAATTCTCAGATTCTCAATTTGGCCACGTT TTTGCATTTGGCGAGTCAAGACCTTTGGCTATTGCAAATAT GGTTCTTGGGCTGAAGGAAATTCAAATTCGTGGCGAGATC CGTACGAATGTTGATTATACAATTGATCTGTTACATGCTCC TGATTATAGAGAAAATAAAATACATACCGGTTGGTTAGAT AGCCGAATTGCTATGAGGGTTAGAGCAGAAAGGCCCCCTT GGTATCTTTCAGTAGTTGGGGGAGCACTTTACAAAGCTGC
--	--	--	--	---

				TGCTAGAAGTGCAGCCATGGTCTCGGACTATGTTGGTTAC CTTGAAAAGGGCCAAATCCCTCCTAAGCATATATCATTGGT CAACTCACAAGTTTCTTTGAATATTGAGGGCAGCAAATACA CGATTGATATGGTAAAAAGAGGGCCAGGAAGTTACAGATT GAGAATGAATCAATCCGAGATTGAAGCAGAGATACATACA CTACGTGACGGAGGCTTATTGATGCAGTTGGATGGGAATA GTCATATATTATACGCCGAGGAAGAAGCTGCCGGTACTCG CTTGCTTATTGATGGACGGACTTGCTTGCTTCAGAATGATC ATGATCCTTCCAAGTTGATGGCTGAAACACCATGCAAACCTT CTAAGGTACTTGGTCTCAGATGATAGCCATGTTAATGCTGA CACACCGTATGCTGAGGTTGAAGTTATGAAGATGTGTATG CCACTCCTTTCACCGGCTGCTGGAGTTATACAATTCAAGAT GTCAGAAGGTCAAGCCATGCAGGCTGGTGAGCTTATAGCA AGGCTAGATCTTGACGATCCGTCAGCTGTAAGAAAAGCAG AGCCTTTCATGGAAACTTTCCTCTTCTTGGGCCTCCAACG GCCATGTCAGACAAAGTGCATCAGAAGTGTGCTGCAACTT TAAATGCTGCTCGAATGATTCTCGCAGGCTATGATCATAAC ATTGATGAATTGGAATCCAAGTTTAAGGAGTACGAAGGAA TTCCACACAACAACTATTGACTTTCCTGCTAGAGTTCTAC GGGTCATTCTTGAAACCCATCTTGGATCTTGCTCAGAAAAA GAAAAGGGAGCCCAAGAAAGGCTCGTTGAGCCATTAATG GGTCTTGTAAGTCGTATGAAGGGGGAAGAGAAAGTCAT GCACGTGGGATCGTTCATGCTCTATTTGATGAATATTTATC TGTTGAAGAGTTGTTCAAGCACAACATTCAGGCTGATGTA ATCGAACGTCTTCGACAACATAACAAGAAAGATCTCTTGAG GATTGTCGACATTGTCCTTTCATCAGGGTGTTAGGAGTA AAAACAAATTGATACTACGGCTGATGGAGCATTGTTGTTTAC CCCAATCCGGCTGCGTATAGGGAGAACTGATACGATTTT CTCAACTTAACCACACAAGTTATTCTGAGTTAGCACTGAAG GCAAGTCAACTTTTAGAACAACTAACTAAGTGAACCTCG TTCAAGCATTGCGCGAAGTCTTCTGAATTAGAGATGTTTA CTGAAGAAGGTGAAAATATGGATACCCCTAAGAGGAAGA GTGCCATTAATGAAAGAATGGAGGATATTGTGAGTGCTCC ATTGGCAGTTGAAGATGCCCTTGTTGGTCTTTTTGACCATA GCGATCACACCCTTCAAAGGCGTGTTGTTGAGACCTATGTT CGAAGATTATATCAGCCATATCTCGTGAAGGGGAGTGTTA GAATGCAGTGGCACAGATCCGGACTCATCGCTACATGGCA ATTTATAGAAGGACTCATTGGAGAAGTTAATGTGCCTGAC TATGAACAGAATGAAGCTCCCTTGGAAGACAAGAAATGGG GAGCTATGGTTATTATTAAATCTCTTCAATTTTTGCCTGATG TCATAAGTGCATCTCTTAAAGAAACGAGTCATAACCTTCCC AGAACAAGTCAGAATGGGTTTGCTGGTCATAGTAACCATG GTAATATGATGCACATTGCTTTGGCCGGCATAAATAACCAG ATGAGTTTGCTTCAAGACAGTGGTGATGAGGATCAGGCTC AAGAGAGAGTCAACAGGTTAGCAAAAATACTCAAAGATAA AGAAGTAAGCTCGAGTCTTAAAAACGCAGGGTATGGAGT GATCAGTTGTATAATAACAAGAGATGAAGGGAGAGGCCC CATGAGACACTCATTTCACTGGTCAGAAGAGAATCATTATT
--	--	--	--	---

				ATATTGAAGAGCCATTATTGCGTCACTTGGAGCCTCCATTA TCGACATATCTTGAAGTGGACAACTTAAGGGCTATGATAA TATAAAGTACACTCCGTGCGTGACCGTCAATGGCACATGT AACTGTTGATGCTAAACCACTTCCGGTACAAAGAATGTTT CTTAGAACTCTTATAAGGCATCCAACAAAGGAATGGTTCTC GCCCTCAGGTTACCAAGGTTTCAAGAGATGAGGGCCACGG TCTCAGTTAAATCTCCCTTTTACATCAAGGAGCATCTTGAG ATCATTAGTGACGGCTATGGAGGAGTTGGAACCTCATGTT CATAATGCTACTGTCAAGTCTGACCATGCTCATATGTACCT ATATGTATTGAAGGAGCAACAAATTGGTGATCTTGTTCCAT ACACAACGAGAGTGGATGTAGATTCTGGGACAGAAGATT GCGTGGTTGAGACACTTTTGGTAAGGCTGGCTCGTGAAAT CCATTCAATGGTTGGTGTAAGATGCACCGGTTGGGAGTT TTTGAGTGGGAGGTGAAGCTTTGCATGGCATCATCGGGTC AAGCCAACGGTGCGTGGAGGGTTGTGGTCACAAATGTGA CTGGTCATACCTGCGTTGTGCATGTATATCGTGAAGTGGAA GATACTGGTTTGCACAAGGTGTATCATGCTACCTCTACATT GGGTCCTTTGCATGGCGTACCTGTGAATACACCCTTTCAGC CTTTAGGATTACTTGATCAGAAGCGTCTTTTGGCAAGGAAA AGCAATACTACGTACTGCTACGACTTTGCACTGGCATTGTA AGCAGCTCTTGAGAATATCTGGGCGTCGAAAGTCGTAAGT GATAGCAGGCCTAAGGGTAACTTGTGAATGTGACGGAG CTCATGTTTGCTGAGCCAAGTGGCTCATGGGGAAGTCCCT TGTTGCAGTAAATCGTGAGCCAGGGCAAAACAAGGTGGG CATGGTGGCGTGGACTATGGACCTCTGCACTCCTGAGTTTC CTGATGGAAGAACGATTTTGGTAGTAGCAAACGATGTTAC GTTCAAAAATGGATCTTTTGGTCCTCTTGAGGATGCCTTTT TGAGGCAGTTACTGATCTCGCTTGCGCAAGAACTGCCA CTAATATACTTGGCAGCAAAGTCCGGGGGCGGTATCGGAG CGGCTGAGGAAGTCAGATCTTGCTTTAGAATTGGGTGGTC TGATGAGTCGACTCCTGAATCGGGATTCCAGTATTTGTATC TTAATCCTGAAGATTATACCCACATCAAATCATCTGTAATA GCTCATGAGGTTTATCTATCAAATGGCGAAACAAGATATG TCATCGATACTATTGTGGGAAAAGAAGACGGACTCGGGGT TGAAAATTTGAGTGGTAGCGGGGCAATTGCTGGTGCCTAT TCGAAAGCATATAAGGAAACGTTTACATTAACATATGTTAC TGGAAGAAGAGTTGGGATAGGCGCATATCTGGCACGTCTT GGGATGCGGTGCATACAGCGGCTTGATCAACCGATTATAT TAACGGGTTTTTCTGCACTGAACAAGCTTTTGGGCCGAGA GGTTTATAGCTCACAGATGCAACTAGGTGGGCCTAAAATT ATGGCTACGAATGGTGTTGTCCATTTAACGGTGTCCGATG ATCTCGAAGGTGTCTCAGCTATCTTGAATTGGTTGAGCTTT GTTCCACCTTATGTCGGTGGCCCACTTCCTGTTTTAGCACCT GTGGATCCACCAGAAAGGCCCGTTGAGTACCTCCCTGAAA ACTCATGTGATCCTCGGGCAGCTATTTGTGGGGTCGTGGA TAGCAACGGTGAATGGGCTGGTGGGATTTTCGATAGAGAC AGTTTTGTGGAGACATTGGAAGGTTGGGCGAGGACAGTC GTAACGGGTCGTGCCAACTTGGCGGGATCCCAGTCGGG
--	--	--	--	---

				ATCGTTGCTGTTGAGACACAAACAGTGATGCAAGAAATAC CTGCAGATCCCGGGCAGCTTGATTCACACGAACGTGTTGTT CCTCAAGCAGGTCAGGTCTGGTTCCCGGATTCCGCCAGCA AAACAGCTCAGGCATTGATGGATTTCAACCGAGAAGAGCT CCCACTTTTCATCATGGCTAACTGGCGAGGCTTTTCTGCAG GTCAGCGGGATCTTTTTGAAGGGATTTTACAAGCAGGGTC AACAAATTGTTGAGAATCTCAGAACATATAACCAGCCTGTTT TTGTATACATCCCGAAAACCTGGAGAACTTCGTGGTGGTGC ATGGGTGGTTGTCGACAGTCGAATCAATTCAGATCATATA GAAATGTATGCAGAAACCACAGCAAAAGGAAATGTCCTTG AACCTGAAGGTATGATTGAGATTAAGTTCCGAAACAAAGA ATTGATAGACTGTATGGGTCGTCTAGATCCACAGATTCTGA AGCCTTAAAGAAAGACTTCGAGAAACAAAGTACGATCAAA CGATCGTCCAACAGATAAAATCTCGTGAAAAACAGCTTTTA CCGATTTACACTCAAATTGCTACCAAATTCGCTGAACTTCAT GACACATCATTGCGAATGGCTGAAAAAGGTGTGGTCAAAC AAGTTGTTGACTGGAAAGTATCTCGGTTTTTCTTTTACAAA AGGCTTCGTCGTAGGCTCGCAGAGGCTTCCTTGATCAGTA GTGCTCGTGAAGCTGCTGGTGATACTCTTTCCTACAAGTCT GCTCATGAGTTGATTAAGAAATGGTTTTTGGAAATCGAAAA CTGAAGATTTATGGCTTAGTGATGATGCTTTTTTCACTTGG AAAGACAATCTGATGAACTATAATGACAAGTTAGCCAAGC TACGTACTCAGAAGCTCTTGGATCAGTTATTAAGATTGGT AATTCACCATTGGATCTACAAGCTTTACCACAAGGCCTCGC CGCACTTTTGCAAGAGGTGAACAACTCTCTTTATTTTCCC TTAG
46	Conyza canadensis	cDNA Contig	6654	ATGCCAGAAGCTCAAAGAATGCCTCTAAATGGAAGCCTTA ATCTTGGTAATGGTTATGTAAATGGGGCCATTTTCATTGAGG TCTTCTGCTAGCAGATCTGCCATTGATGAATTTTGTAATGC ACTTGGGGGGAATAGGCCAATCCATAGTATTTTAATTGCA AACAAATGGAATGGCTGCTGTAAAGTTTATAAGAAGTGTGA GGACATGGAGTTATGAAACGTTTGGTTCAGAAAAAGCAAT TTTGTTGGTAGCCATGGCTACACCTGAGGATATGAGGATT AATGCCGAGCATATTAGAATTGCTGATCAGTTTGTGAAAGT CCCAGGTGGTACAAATAATAAATTATGCTAATGTGCAGC TCATCGTGGAGACTGCTGAGATAACACATGTTGATGCTGTT TGGCCTGGTTGGGGTCATGCCTCTGAAATTCCTGAATTACC TGATGCATTGGACGCAAAGGGAATTGTATTTCTTGGGCCG CCGGCTTCATCCATGGCGGCTTTAGGAGACAAAATCGGCT CTTCTTTAATTGCACAAGCTGCTGACGTGCCAACACTTCCTT GGAGTGGTTCTCATGTGAAAATTTCTGCAGAGAGCTGCTT AGACACAATTCCAGATGACGTATATAGAAAAGCTTGTGTC CATACAACCGAGGAAGCAGTTGCTTCTTGTCAAGTTATTGG TTATCCTGCTATGATCAAGGCATCATGGGGCGGTGGTGGC AAAGGCATAAGAAAGGTGCATAGTGATGAAGAAGTCAAG ACACTTTTAAAGCAAGTTCAGGGTGAAGTCCCTGGTTCCCC CATATTTATTATGAAAGTTGCTTCCCAGAGCCGACATCTAG AAGTACAACCTCTGTGATCAGCATGGCAATGTAGCGGC

				TTTACATAGTCGGGATTGCAGTGTTCAAAGGCGGCATCAA AAGATTATCGAGGAGGGGCAATAACCATAGCCCCCCTG ACACAATAAAAAAATTGGAGCAAGCGGCAAGAAGATTAG CCAAATCGGTCAATTATGTTGGAGCTGCAACTGTAGAGTA TTTGTACAGTATGGAAACCGGAGATTATTACTTTTTGGAGC TCAATCCCCGTTTACAGGTTGAGCATCCTGTCACTGAGTGG ATAGCGGAAGTTAATCTACCTGCAGCACAAAGTTGCGGTTG GAATGGGCATTCCACTTTGGCAAATCCCGAAATAAGACG GTTTTATGGAAAGGAAAACGGTGGAGGGTATGATGCTTG GAGGAGAACATCGGTTCTTGCAACCCCATTTGATTTTGATC GCGCCGAGTCAGTTAGGCCGAAGGGTCATTGTGTTGCTGT ACGTGTAACAAGTGAAGATCCGGATGATGGTTTTAAGCCC ACCAGTGGAAAAGTTCAGGAGCTAAGTTTTAAAGCAAGC CAAACGTATGGGCATACTTTTCTGTCAAGTCTGGAGGAGG CATTCATGAATTCTCAGATTCTCAATTCGGTCATGTTTTGC ATTTGGAGAGTCAAGAACATTGGCTATTGCAAATATGGTT CTTGGGCTAAAGGAAATCAAATTCGTGGCGAAATGCGCA CTAATGTTGATTATACAATTGATTTATTACATGCTCCAGATT ATAGAGAAAACAAAATACACACGGGTTGGTTAGATAGCCG AATTGCGATGCGGGTTAGAGCAGAAAGGCCTCCTTGGTAT CTTTCGGTAGTGGGGGGAGCTCTTACAAAGCCGCTGCTA GAAGTGCAGCCATGGCCTCTGACTATGTTGGTTATCTTGAA AAGGGGCAAATCCCTCCAAAGCATTTATCACTAGTCAACTC TCAAGTTACTTTGAATATTGAGGGGAGCAGATACACAATT GATATGGTAAAAAGAGGACCTGGAGGTTATAGATTGAAA ATGAACCAATCTGAGATTGAAGCAGAAATACATACTCTAC GTGACGGGGGTTTATTGATGCAGTTGGATGGGAATAGTCA TATTATATATGCTGAAGAAGAAGCCGCTGGTACTCGTCTCC TCATTGATGGACGGACATGTTTGCTTCAGAATGATCATGAT CCTTCCAAGCTGGTGGCCGAAACACCATGCAAACCTTCTAAG ATACTTAGTCTCAGATAGTAGCCATGTCGATGCTGACACAC CTTATGCTGAGGTGGAGGTAATGAAGATGTGTATGCCGCT ACTTTCGCCGGCTTCTGGAGTTATACAGTTTAAGATGTCTG AAGGTCAAGCAATGCATGCTGGTGAGCTAATAGCAAGGCT TGATCTTGATGACCCATCAGCAGTAAGAAAAGCAGAGCCT TTCCATGGAACTTTTCTCTTCTTGGGTCTTCAACTGCCATG TCAGATAAAGTTCATCAAAAGTGTGCTACAACTCTAAGTGC CGCTCGAATGATTCTTGCAAGGCTATGATCACGATATTGATG AATTGGAAACAAAATTTAAGGAGTACGAAGGAATTTCCAC CCAACAAGCTATTGATTTCCCGCCAAATTATTATGGGGAA TTCTTGAAACACATCTTGAATTGTGCTCGGAAAAGGAAAG GGGAGCCCAAGAAAGGCTTGCTGAGCCATTAATGAGTCTT GTCAAGTCCTATGAAGGTGGCAGAGAGAGTCATGCACGT GGGATCGTTCATGCTCTTTTGAAGCATATTTATCTGTTGA AGAGCTATTTAGCGACAACATTCAGGCTGATGTAATTGAA CGTCTTAGACAACAATAACAAGAAGGATCTGTGAGGGTTG TTGACATCGTGATTTACATCAGGGTGTTAAGACTAAAAAC AAACTGATACTACGACTGATGGAGCATTTGGTTTACCCTAA
--	--	--	--	---

				TCCAGCCGCCTATAGGGAAAATCTGATACGGTTTTCTCAAT TGAACCACACTAGTTATTCTGAGTTAGCATTGAAGGCAAGT CAGCTGCTAGAACAGACTAAACTGAGTGAACCTTCGTTCAA GCATAGCTAGAAGTCTTTCTGAGTTAGAGATGTTTACCGAA GAAGGTGAGAATATAGATAACCCCTAAGAGGAAGAGTGCC ATTGATGAAAGAATGGAGGATATTGTGAGTGCTCCTTTGG CGGTCGAAGATGCCCTTGTTGGTCTTTTTGATCACAGTGAT CACACCCTTCAAAGGCGTGTTGTTGAGACCTATGTTCGAAG GCTATATCAGCCATATCTCGTGAAGAGGAGTGTTAAGATG CAGTGGCACAGATCCGGACTTATTGCTTCATGGCAATTCAT GGAAGGACACGCTGAAGCTGTTAATGTGTCTGATTATGAA ACTATTGATACACAATTGGTAGATAAGAAATGGGGAGCTA TGGTTATTATTAGATCTCTTCAATTTTTACCTGATGTCATAA GTGCAGCTCTTAAAGAACTACTTATAAACATCATGGCACA AGTCAAAATGGGGATGCCAATCCAAGTTATCAAGGTTATA TGATGCATATTGCATTGGTAGGCATCAACAACCAAATGAG TTTGCTTCAAGACAGTGGTGATGAGGATCAGGCTCAAGAG AGAGTCAACAAGTTAGCAAAAATACTCAAAGATAAAGAAA TAAGTGTGAACTAAAAAATGCAGGATATGAAGTTGTAAG TTGCATAATACAAAGAGACGAAGGTAGAGGCCCGGTGAG ACACTCATTTCACTGGTCAGAAAAGAATCGTTATTATATCG AAGAGCCATCATTGCGTCATTTGGAGCCTCCATTATCGATT TATCTTGAAGTGGACAAGCTTAAGGGCTATGAGAATGTAA AGTACACTCCATCACGTGACCGTCAATGGCACATGTATACT GTTGATGCTAAACCACTTCCGGTTCAAAGAATGTTTCTTAG AACGCTTGTAAGGCACCCGACAAAAGAATGGTTCTTGCCC TCAGGATACCAAGATTCGGAAGTTGTGGACCCACGGTCTC AGTTAACTTTACCTTTTACATCAAGGAGCATCTTGAGATCTT TAGTGACCGCCATGGAGGAGTTGGAACCTTCATGTTCATAA TGCTATAGTCAAGTCGGACCATGCTCATATGTACCTCTATA TATTGAAAGAACAACAAATAAATGATCTTGTTCCATATACT AAGAGAGTGGATGTAGATTCTGGTAAAGAAGAAGGTGTG GTTGAGACGCTTTTGGTGAAGTTGGTCCGTGAACTTCATTC GATGGTTGGGGTAAAGATGCACCGGTTAGGTGTTTTTGGAG TGGGAGGTGAAGCTTTGTATGGTATCATCTGGTGAAGCCA ACGGTGTTTGGAGGGTGGTGGTCACAAATGTGACTGGGC ATACCTGCAATGTACATGTGTATCGGGAAGTAGAAGATAC TGTTAAACACAAGGCAGTGTATCATGCTCCCTCTACATTGG GACCTTTACATGGTGTGCTGGTGAACACACCCTTTCAGCCT CTGGGATTACTCGATCAGAAGCGTCTTGTCGCCAGGAAAA GCAATACTACTTACTGCTACGACTTTGCACTGGCATTGAA GCAGCCCTTGAGAATATCTGGTCATCAAACTGCCTGGTGT AAGCAGGCCCAAGGGCAAACCTTGTAATGCGATGGAGCTT GTGTTTGCTGACCGAAGAGGTTTATGGGGCACTCCACTTG TGCCAGTAACGCGCGAGCCTGGACAAAATAATGTGGGAAT GGTAGCGTGGACTATGGACCTCTGCACACCAGAATTTCTCCT GATGGTAGGACGATTTTAGTTGTTTCAAATGACGTCACATT TAAAACGGATCTTTGGTCCTATCGAGGATGCGTTTTTTG
--	--	--	--	---

				AGGCAGTCACTGAGCTTGCTTGTCGCCAAAAAACTGCCGCT CATTTACCTGGCGGCCAAACTCAGGGGCCCCGTATCGGGGTG GCCGAAGAGGTCAGATCCAGCTTTAGAATTGGGTGGTCTG ATGAGTCAACTCCCGACTCCGGCTTTCAGTATTTGTATCTA ACTCCCGAAGATTACTCTCGTTTGGAATCATCAGTAATAGC ACATGAAATTCGTCTATCCAGTGGTGAAACAAGATGGGTC ATTGATACTATTGTCGGGAAAGAGGATGGATTAGGGGGTTG AGAATTTGAGTGGTAGTGGGGCGATTGCTGGGGCTTTTTTC GAAGGCATATAAAGAAACTTTTACTTTAACCTACGTGACTG GAAGAACTGTTGGGATAGGTGCATATCTGGCCCGTCTTGG GATGCGATGCATACAAAGGCTTGATCAACCGATTATTTTAA CTGGGTTTTCTGCACTAAACAAGCTTTTGGGCCGAGAGGTT TATAGTTCGCAGATGCAACTTGGTGGACCTAAAATTATGG CCACGAATGGCGTTGTTTCATCAAACGTATCTGATGATTTG GAAGGTGTCTCGGCTATCTTGAACGTGGTGAGCTATGTTCC GCCTTACGTTGGCGGTCCACTTCCTGTTTTGCCACCCATGG ATCCACCAGACAGGCCCGTCGAGTACCTGCCTGAAAACCTC ATGTGATCCTAGGGCAGCCATTTGTGGGACCGTGGATGGT AACGGGAAATGGGTTGGTGGGATTTTCGACAGAAACAGTT TTGTGGAGACGTTGGAAGGTTGGGCAAGGACAGTTGTAA CAGGTCGGGCGAAACTCGGTGGAATCCCTGTGGGGGTTG TTGCTGTCGAGACACAAACGATGATGCAAGTTATACCTGC GGATCCTGGGCAGCTCGATTCACATGAACGTGTAGTTCCTC AAGCTGGGCAGGTCTGGTTCCTCGGATTCTGCTAGTAAGAC AGCTCAAGCGCTGATGGATTTTAATCGAGAAGAGCTCCCC CTTTTCATTATGGCAAACGTGGCGAGGGTTTTTCAGCCGGTCA ACGTGACCTTTTTGAAGGGATTCTACAAGCGGGATCGACA ATTGTAGAGAATCTTAGAACCTATAAACAGCCAGTTTTTGT CTACATTCCAAAAACAGGTGAGCTTCGAGGTGGTGATGG GTGGTCGTTGACAGTCGAATCAATTCAGACCATATAGAAA TGTATGCAGAAACAACCTGCGAAAGGAAATGTTCTTGAACC CGAAGGTATGATTGAAATAAAGTTCCGAAATAAAGAGCTG GTAGACTGCATGGGTGCGATTGGACCCACTAATTTGCAATCT AAAAGAAAAACTTAAGAAACGAAGCTCGATCAAGCAATC ACCCAGCAGATAAAAGCCCGTGAGAAACAGCTTTTACCAA TTTACACTCAAATCGCTACAAAGTTTGCTGAACTTCATGAC ACATCATTCCGAATGGCTGAAAAAGGTGTTGTCAAAAAGG TTGTTGACTGGGCAATTTCCCGGTTTTTCTTCTACAAAAGA CTCCAGCGTAGGCTGGCCGAGGCTTCTCTAATCAAGAGTG CTCGTGATGCTGCTGGTGACACGCTTTCACACAAATCTGCT CATGAAATGATCAAAAAATGGTTTTTGGACACAAAAAGTG AAGATATGTGGGTGAATGACGACGCCTTTTTTACATGGAA AGATGATCCATTGAACTATACTAGCAAATTAGCCGATCTAC GTACACAGAAGATATCAAATCAGTTATTAAAGATTGGCAG TTCACCTTCCGATCTGCAAGCTTTACCACAGGGGACTCGCTG CACTTTTGCAAGAGGTGAATCCTGCAGCCAAAAATAAATT GATTGAAGAACTCAGGCGGATAATTGAGTAG
47	Conyza	cDNA	4804	CTACTTTCGCCGGCTTCTGGAGTTATACAGTTTAAGATGTC

	canadensis	Contig		TGAAGGTCAAGCAATGCATGCTGGTGAGCTAATAGCAAGG CTTGATCTTGATGACCCATCAGCAGTAAGAAAAGCAGAGC CTTTCCATGGAACCTTTCTCTTCTTGGGTCTTCAACTGCCA TGTCAGATAAAGTTCATCAAAAGTGTGCTACAACTCTAAGT GCCGCTCGAATGATTCTTGCAAGGCTATGATCACGATATTGA TGAAGTTGTCAAAAACCTTCTTCGTTGTCTAGATAATCCCA AGCTACCTTTCTCCAGTGGCAAGAATGCTTTCAGTTCTA GCCAATCGTCTCCCTAAAGATCTAAGAAACAAGTTGGAATC CAAGTTTAAGGAGTACGAAGGAATTTCCACACAACAACT ATTGACTTTCTGCTAGAGTTCTACGGGTCTTCTTGAAAC CCATCTTGGATCTTGCTCAGAAAAAGAAAAGGGAGCCCAA GAAAGGCTCGTTGAGCCATTAATGGGTCTTGTAAGTCAT ATGAAGGGGGAAGAGAAAGTCATGCACGTGGGATCGTTC ATGCTCTATTTGATGAATATTTATCTGTTGAAGAGTTGTTCA GCGACAACATTCAGGCTGATGTAATCGAACGTCTTCGACA ACTATACAAGAAAGATCTCTTGAGGATTGTCGACATTGTCC TTCCCATCAGGGTGTTAGGAGTAAAAACAAATTGATACTA CGGCTGATGGAGCATTTGGTTTACCCCAATCCGGCTGCGT ATAGGGAGAACTGATACGATTTTCTCAACTTAACCACACA AGTTATTCTGAGTTAGCACTGAAGGCAAGTCAACTTTTAGA ACAACTAACTAAGTGAAGTTCGTTCAAGCATTGCGCGA AGTCTTTCTGAATTAGAGATGTTTACTGAAGAAGGTGAAA ATATGGATACCCCTAAGAGGAAGAGTGCCATTAATGAAAG AATGGAGGATATTGTGAGTGCTCCATTGGCAGTTGAAGAT GCCCTTGTTGGTCTTTTTGACCATAGCGATCACACCCTTCAA AGGCGTGTTGTTGAGACCTATGTTCTGAAGATTATATCAGCC ATATCTCGTGAAGGGGAGTGTTAGAATGCAGTGGCACAGA TCCGGACTCATCGCTACATGGCAATTTATAGAAGGACTCAT TGGAGAAGTTAATGTGCCTGACTATGAACAGAATGAAGCT CCCTTGGAAGACAAGAAATGGGGAGCTATGGTTATTATTA AATCTCTTCAATTTTTGCCTGATGTCATAAGTGCATCTCTTA AAGAAACGAGTCATAACCTTCCCAGAACAAGTCAGAAATGG GTTTGCTGGTCATAGTAACCATGGTAATATGATGCACATTG CTTTGGCCGGCATAAATAACCAGATGAGTTTGCTTCAAGAC AGTGGTGATGAGGATCAGGCTCAAGAGAGAGTCAACAGG TTAGCAAAAATACTCAAAGATAAAGAAGTAAGCTCGAGTC TTAAAAACGCAGGGTATGGAGTGATCAGTTGTATAATACA AAGAGATGAAGGGAGAGGCCCATGAGACACTCATTTTCA TGGTCAGAAGAGAATCATTATTATATTGAAGAGCCATTATT GCGTCACTTGGAGCCTCCATTATCGACATATCTTGAAGTGG ACAACTTAAGGGCTATGATAATATAAAGTACACTCCGTCTG CGTGACCGTCAATGGCACATGTATACTGTTGATGCTAAACC ACTTCCGGTACAAAGAATGTTTCTTAGAACTCTTATAAGGC ATCCAACAAAGGAATGGTTCTCGCCCTCAGGTTACCAAGG TTCAGAAGATGAGGGCCACGGTCTCAGTTAAATCTCCCTT TTACATCAAGGAGCATCTTGAGATCATTAGTGACGGCTAT GGAGGAGTTGGAAGTTCATGTTTATAATGCTACTGTCAAG TCTGACCATGCTCATATGTACCTATATGTATTGAAGGAGCA
--	------------	--------	--	--

				ACAAATTGGTGATCTTGTTCCATACACAACGAGAGTGGAT GTAGATTCTGGGACAGAAGATTGCGTGGTTGAGACACTTT TGGTAAGGCTGGCTCGTGAAATCCATTCAATGGTTGGTGT AAAGATGCACCGGTTGGGAGTTTTTGAGTGGGAGGTGAA GCTTTGCATGGCATCATCGGGTCAAGCCAACGGTGCGTGG AGGGTTGTGGTCACAAATGTGACTGGTCATACCTGCGTTG TGCATGTATATCGTGAAGTGAAGATACTGGTTTGCACAA GGTGTATCATGCTACCTCTACATTGGGTCCTTTGCATGGCG TACCTGTGAATACACCCTTTAGCCTTTAGGATTACTTGATC AGAAGCGTCTTTTGGCAAGGAAAAGCAATACTACGTACTG CTACGACTTTGCACTGGCATTGAAGCAGCTCTTGAGAATA TCTGGGCGTCGAAAGTCGTAAGTGATAGCAGGCCTAAGG GTAAACTTGTGAATGTGACGGAGCTCATGTTTGTGAGCC AAGTGGCTCATGGGGAACCTCCCCTTGTTGCAGTAAATCGT GAGCCAGGGCAAAACAAGGTGGGCATGGTGGCGTGGACT ATGGACCTCTGCACTCCTGAGTTTCCTGATGGAAGAACGAT TTTGGTAGTAGCAAACGATGTTACGTTCAAAAATGGATCTT TTGGTCCTCTTGAGGATGCCTTTTTTGAGGCAGTTACTGAT CTCGCTTGCGCAAGAACTGCCACTAATACTTGGCAGC AAACCTCGGGGGCCCGTATCGGAGCGGCTGAGGAAGTCAG ATCTTGCTTTAGAATTGGGTGGTCTGATGAGTCGACTCCTG AATCGGGATTCCAGTATTTGTATCTTACTCCTGAAGATTAT ACCCACATCAAATCATCTGTAATAGCTCATGAGGTTTCTCT ATCAAATGGCGAAACAAGATATGTCATCGATACTATTGTG GGAAAAGAAGACGGACTCGGGGTTGAAAATTTGAGTGGT AGCGGGGCAATTGCTGGTGCCTATTCGAAAGCATATAAGG AAACGTTTACATTAACATATGTTACTGGAAGAACAGTTGG GATAGGCGCATATCTGGCACGTCTTGGGATGCGGTGCATA CAGCGGCTTGATCAACCGATTATATTAACGGGTTTTCTGC ACTGAACAAGCTTTTGGGCCGAGAGGTTTATAGCTCACAG ATGCAACTAGGTGGGCCTAAAATTATGGCTACGAATGGTG TTGTCCATTTAACGGTGTCCGATGATCTCGAAGGTGTCTCA GCTATCTTGAATTGGTTGAGCTTTGTTCCACCTTATGTCGGT GGCCCACTTCCTGTTTTAGCACCTGTGGATCCACCAGAAAG GCCCGTTGAGTACCTCCCTGAAAACCTCATGTGATCCTCGGG CAGCTATTTGTGGGGTCGTGGATAGCAACGGTGAATGGGC TGGTGGGATTTTCGATAGAGACAGTTTTGTGGAGACATTG GAAGGTTGGGCGAGGACAGTCGTAACGGGTCGTGCCAAA CTTGGCGGGATCCCAGTCGGGATCGTTGCTGTTGAGACAC AAACAGTGATGCAAGAAATACCTGCAGATCCCGGGCAGCT TGATTCACACGAACGTGTTGTTCTCAAGCAGGTCAGGTCT GGTTCCCGGATTCCGCCAGCAAAACAGCTCAGGCATTGAT GGATTTCAACCGAGAAGAGCTCCCACTTTTCATCATGGCTA ACTGGCGAGGCTTTTCTGCAGGTCAGCGGGATCTTTTGA AGGGATTTTACAAGCAGGGTCAACAATTGTTGAGAATCTC AGAACATATAACCAGCCTGTTTTTGTATACATCCCGAAAAC TGGAGAACTTCGTGGCGGTGCATGGGTGGTTGTCGACAGT CGAATCAATTCAGATCATATAGAAATGTATGCAGAAACCA
--	--	--	--	--

				CAGCAAAAGGAAATGTCCTTGAACCTGAAGGTATGATTGA GATTAAGTTCCGAAACAAAGAATTGATAGACTGTATGGGT CGTCTAGATCCACAGATTCGAAGCCTTAAAGAAAGACTTC GAGAAACAAAGTACGATCAAACGATCGTCCAACAGATAAA ATCTCGTGAAAAACAGCTTTTACCGATTTACACTCAAATTG CTACCAAATTCGCTGAACTTCATGACACATCATTGCGAATG GCTGAAAAAGGTGTGGTCAAACAAGTTGTTGACTGGAAAG TATCTCGGTTTTTCTTTTACAAAAGGCTTCGTCGTAGGCTCG CAGAGGCTTCCTTGATCAGTAGTGCTCGTGAAGCTGCTGG TGATACTCTTTCCTACAAGTCTGCTCATGAGTTGATTAAGA AATGGTTTTTGAATCGAAAAGTGAAGATTTATGGCTTAGT GATGATGCTTTTTTCACTTGGAAAGACAATCTGATGAACTA TAATGACAAGTTAGCCAAGCTACGTACTCAGAAGCTCTTG GATCAGTTATTAAGATTGGTAATTCACCATTGGATCTACA AGCTTTACCACAAGGCCTCGCCGCACTTTTGCAAGAGGTG GATCCAGTGACCAAAAATAAACTAGTCGAAGAAGCTCTTGC GCGTAATTAAGTAGGTAATTATACACAAAGCTCATCAGATT CTTTCTTTGTTTGTCAAAGTGAGAAGCCTTTTGAGCAGTGT ACATTATAAGTAGGTGTCATAAGAAAACAGGCTCAAATA GTTTAAAGTATATGAGGTTTACCATGTTTCAGATTGTTTTATT TTCTTCATAAATTGTATAATACCATCACATTTCTATCGCAT TTTTATATATCTATATATAAATGGTCA
48	Conyza canadensis	cDNA Contig	454	GGTCATTGTGTTGCTGTACGTGTAACAAGTGAAGATCCGG ATGATGGTTTTAAGCCCACCAAGTGGAAAAGTTCAGGAGCT AAGTTTTAAAAGCAAGCCAAACGTATGGGCATACTTTTCTG TCAAGTCTGGAGGAGGCATTCATGAATTCTCAGATTCTCAA TTCGGTCATGTTTTTGCATTTGGAGAGTCAAGAACATTGGC TATTGCAAATATGGTTCTTGGGCTAAAGGAAATTCAAATTC GTGGCGAGATGCGCACTAATGTTGATTATACAATTGATTTA TTACATGCTCCAGATTATAGAGAAAACAAAATACACATACC GGTTGGTTAGATAGCCGAATTGCTATGAGGGTTAGAGCAG AAAGGCCCCCTTGGTATCTTTCAGTAGTTGGGGGAGCACT TTATAAAGCTGCTGCTAGAAGTGCAGCCATGGTCTCGGAC TATGTTGG
49	Conyza canadensis	gDNA Contig	19367	TTTGGTGGTGGTTTTCGTGGTCTAATTCGAAGAAACGAGTG AGATATCGGTATTTTAAAGTTTTCCGGCGAACTTTCCGATGA AAGTTAGCCGGAGAAGATGAAGATGATGACAACAGAAAA TTAAATTTCATTTTTTGTCCCTGAACTTGTCATTTTCGCACT TTAAGTCCCTCACGTGTTTTGCACGTGTGGGACTTAACGGC TGAAACTTAACACCGTTTGGCGAGGGACGTCGATTGCAAA AATCTGTCAAGTTTAGGGTCAAATTGTAATTTTTTCATTTT AGGGATGAAAAGTGAAAAACGCGCCAAGTTTAGGGACGA AAAATGTAATTTACTCTAAGTATTATGTAATTTGTTTTGTTA TTAATAAAACATATAAATTAAGGTTAGTTATTTAAA GTTTATAAATGTTAAGGATAAATTATTAAGGTTGTTTGAAGAA AAGGTTGGGAGTTTTGGTTGCCACTAGAAAAAGGTTGAAA AAAAGGTTGGAGGGTTGAAATGAGGTGGAGTAATTTGAT TGGGTATTTAAAGGGAGATGAGAGGGTTGAACCCTCGGCT

				CCGTCCCCCTTATAGGACACCTTGTTTCATGAGGATACTTT GATATTTTAATGGGGAAATGATAAATTCTTTTAAATTAACC TAAAAATCATTCTAAAACCTATAAGAAGATGATATGTGATAT CTACTAATTCTCTTCTCTACTCTCGCCCTTTTTTTCACATATAA TCATCTCATTATTAAGAACATTTTTAGGTTATTTAGTTAAAA GAATGAATCATTTCTCATTTTAATATAAATGGTTAATTTGAA TTGACATCAATCACTGGCGAGAAACACAAAGGTAAAAGAG TAGTGAACACGAAGGTAAAAGAGTAGTAAATTACCAATCA TATCCTTCCTCCTTTATATTTTGATGGAACAAACACAAATTT ATTTTAGAATTTTTTAAAAAAATATATTAAACCGGGTAGAA CATAATCATTATTATTGTTACACGAAATTTATTGTACACCGT GTTAGCTGGTTACAGTAGTATTAATTAATTGGTCAAATATA TGTGCATTAAAATCAGGAACACATTTATAACAAACATAGCG AGATTTTAGGAGAACTTTAATTGAAAATTTTACCATTACAG TAATTAATTAACCTTAAACACATACAAAACCCTATACATTATT TACATTGTCTACATTTCACTACTGTTGTTGGTTTCTGATCGA ATGCCATGAATTTTCGGGCATTTGATCTGAAGCTCAACATT TTTCTGGGCGATTCAAATAAGCGTTTTACTGTTACAAAAG TTTCGTCTCAACGGGTGACCACTACACGACTTCTGATAACA CCAATCCGACCAGTCTTACAAAGGTGAAGGTGAGCGTCAA TATTTAGTTTAATCTCATCGTCTGTGTTTTAAGCTTTTTTGA GGTCTAAACCTTTTTGGTCAGCAAATTTGAAAATTCTTTTA ATATGTTAACTTCTTTTGAAGCTTTAGAGATTTATATATTC TTAATCCATAATAATCTATAATTCTATATTTCTTACTCCTCT ATAAAGCATATTGCTTTTTTTATTTTTGGAAATTAAGCATT TTTAAAATATTTTCATAATACCCTTACACCCCTACCTTCTTC TAATCATTACACGCTCTCCTCGACCTTCTATCACCTCCGCC GCCGCCCTCCTTCTCCACCACCGCCCTCGATCTCCACCACCG CCTCCCTTTTATATTGTCATCGCCTTTTAGCCGTTGCAACGC GCGGACACTATGCTCGTATTAAGTAGTAACGTAATAAAA CATAAAGTTTACGTAAAGTTTATATATTTTATTATTTTGTTA TGATTTTGTACTGATGAATATATATTTAAGCTAAAATCATTC ACTCTAGAGTGTAAGTCGAACGGGTCCAACTGAACTAAA CTATTTGTCTATGGTAGTCAAATCTTAATCTTTTTGGTATC GATCGTTGTGTAGTGTTGCACACCTCACTTGATATTAGTTTT ATGTGATTATATATGGTTAATTTAATTTTTCTTTGATTTTTG ATCATGGTCTTAAATATTATTAAGGTGAAGAAACATGTGA AGAGGGATAAATTTGGAGAAAGAATGGCATCACTAAAAC AGATAGTGTACCCTATGGCAAGGTAGTCCTTCTTTAAGT TTATTAATTATATGTAATTTGTTTGATTAGGTATATCATATA TGTATACTAGTTGTTTTGATTTCCAATCTATACAAGTAGGAT TTTGCTAAACATAGTTGTAAGGGTTATAGTTACAACACAAT AGAATGGTATACATACATTATACATATATAAAGATATATAA CTGTTTATTAATAATAATCTTTAACCGTCATGTAAACCAATT TACTTTGCTTTATCCATATCCTTAAAGGCTATGAATAGCATA GTCGATGTAAGTATATGGTTGCTTAGACGGTGTGTTAATGT TGATCTTACAGGAGTCTAGACTTGGACCATTGTGTTTTAGA GAAGAAGGGAATCGAACGCAAAGGTAAAACCTTCTTTATT
--	--	--	--	--

				TTTAAGAGCATAGTTATAATATCATTCAAATTTAACCAACA ATTTCTGTTACATACATCGAAATAGGCTTGATTACTCATACC TATAGAGATGAGTGACATGTGTGTATGAAGATTTATATATT GAATTGTAGGATATCATTTTCCCATTCTAATGTACTAGTTA ATTATGGTTTGCGGTTTTTTTCTTTGTTGTATGTCCATTACA AAATTACAGTTGGACATCTTCTTGGTGGAATTCAGATGATA TAAAATAGTTAATTTTACCAAACACTACATCATTGGTAGAG AGAAATTAGAACGTAGATAAATGGTTTGTAAGTTTCAAAA GAGATACTCGTATTACATAAAATGTTGTCTTTTGCAATTCG CAGATTTCCAATTACAACAGATTTGACACAATGTTCTATTAT TTGTTAATCCAACCATGAACCACTAATAAAACAGTACAAAC ATCTTGAATAAAAAAAGCCACCAATACATTATTGATTGTT GTATGCTTTTTGTCTCCATATAATGACCAGTAATATCAAAA AACATGTATTTTATTCTTATTCTAGCTTAAAAAGGTTCAAAA ATGCACATCCAACCTTCTCTCTTCTTCCAATCATAGCTTTTC AAATTAAGCATACACGTAAAAGAAACATATGGATGTAG ATTGATATGTGTGTGGGGGGTAGTTGGTTAACCATGTCAC GTGCTCTGCATCACCTCCCATCCTTGGACCCCAATTTGTTTT TTGTACCTACTACATATTTAAGTAACTTTATGGCACCTCACC AAAAACCAACCAACAAACCAAACTCCCAACTATACATCAC TTAATTGCACACACATATACTCAACAAGTACTTACATCT CTCCCAGATTTCTGTCATTCCAATTTCTTGTTTTTAATCACA ATTTTGTTGTTGTTGTCAATGTCTGTCTCTTTTCAAACCAGC TAAAAAAGAAGCAAATTCTTGATTTGATTCAGCTGTTGTT CCACTTGTTTATGGTTAGTCTTCTCATTCTTTCACCCCCCAA GTTTAAATCTTTGAGTTAATTTCTTCAAATTCCTGTGTTTTT GAACCGGGTTTTTATCAGTTTTGTTGAGTTTAGCAAAAAG TAGAGTTGGGTATGTAAAGATTGAATCTTTTTACTGGGTTT ATGTAATTTCTTTGAAATTTATAAGTTTCTTGCAATGGGTAT ATGATTTTCTATTAATTGAAGTGGTTAATAACAGGATTTGG TGAGTAAAGTTTGAATCTTTCGAGTTATGGATTTATGTCAT ACCTTTTCTTGCCCTTCAAATAAAGTCAAAGCTTTAGTTTT GTGATTTGACTTTGGTATGCTGTTGCTCCCATGAATATTTTC ATGCTGTTTGTAATTTGTAATATATATTTTGATAAATTCAAT TTTGTTATATTTGTTTCCTGATAAAGTTTTAATGTGATTAGT GATTACTTCAATTTGATGAGTTCAATAATAAAGAAATTT AGAACTTTGAACCTCGTATTTCTAATTCGAGGTTTCCTAGCT CTATGTAAACCCCACTATATTCTCCATTATAACATACGTTTA TGTGTTACTTTATTTAGACATTTTAATATTTGACTCAATTAT AACATAGGTTTCAGCTGAAAATTTAATTTCTTTGTTAGTGAA TTGTTGTGACTTTTTTTTTTGGTAGTTTTCGTTGTGATAGTC AGGAGACAGAAAGGGCAATTTGTTTCTGTTCTTTTAAAGTT AGATAGGTGACCATTTCCGGTAGATACTAGATAGTGCAAAG ATATAGTGTTTTTTGTAAGTACCAAGTACTTTATGAACTTAC CCAATGATAACAACCTTTTGATGGTTCAGTGGTTCAGCCTTC TCTTTGTCCCTAGACTAATTAGTCCAATCTATCTCTCAGTAT ATATTTTTTAGGTATTGACATATTTTATGATATTGGCAAGTT GGTAGTTTACTTTCAACTTTTAAAGCAATATATGGACATATC
--	--	--	--	--

				CACATATATCAGTTCCATATTACTAGCATGTATCCTATTCTG GGTTAGTATGCTACAAAAAGGGTTTACATGTCAAATGCAG AATTGTTCAAAGAAAACGAGTTGTTAGACCTAATAAGTCA AAGTAATGCTTACTCTACACTTTGCTTACTGTTTGGCAGTG GCACCATGTCAGAAGCTCAAAGAATGCTTCTAAGTGGAAG TTTCAATTATTATGGTAATGGCATTGTAAATGGGGCGATTT CACTGAGGTCTTCTGCTAGTAGATCTGCAATTGATGAATTT TGTAATGCACTTGGAGGCACCAGGCCAATCCAAAGTATTTT AATTGCAAATAATGGAATGGCGGCTGTAAAGTTTATAAGA AGTGTGAGGACATGGAGTTATGAAACATTTGGCTCAGATA AAGCTATTTTCTGGTAGCCATGGCTACACCGGAAGATAT GAGGATAAATGCCGAGCATATTAGAATCGCTGATCAGTTT GTTGAAGTCCCTGGTGGTACAAATAATAAATTATGCGA ATGTGCAACTCATTGTAGAGGTATGTAGCTTATATACGTGG ATCCTACATCATGATTTATAAGCTTTAAAATGATCTATTTTA TGAAACATTGTGCATTTAATGATGCCTGAAAAGATTATGTT TCCAAGACTTATTTGCTTAACTTGTTGGATCAAATGTTG ATCTGCTTCCATGAATATAGTAATTCGAATATGTTGGTTTA ATCTTCACTTTCAAAAAAAAAAAAAAAAAATACTTCTTTTATGT TAGCATTTGAGTTTGAATCTCAAGAGAACTTATTTCACTTTT GAAATCGATATGGATGTGTTGAACATGTAATTGATAATCA GCAACATTTTAAAATTTATTAGAAAATGACGAGGGATGCCT CTTCAGGCTACGCGGCGAGCCTTTGGCTCTAATGTAAGCG GCCTAACCGGTATACCCGGGTCTCTTCTGAGATCTTTGGGT CACCTTACCACTAGACCCCCTTGGAGAAGGTTTTAAAAAGT ATTAGAAAGTATATAAATATAAAATAGAAACGATATGTAA AATTTTAAAAATATGTTTCATTGAGTTATCTTACACCTGACT ATTTGATATTGAGCATTAAACGAGTTTGATGGAAAATATA AAATAATTAATATTTAGCTATCATCATCAATTCCTTTAAAAT GGTTCATTTATGATTTATGACTTCAGACTGCTGAGATAACA CATGTTGATGCTGTTTGGCCTGGTTGGGGCCATGCATCCG AAATCCCTGAGCTGCCTGATGCATTGGAAGCAAAAGGTAT TGTATTTCTTGGGCCACCAGCTTCCTCCATGGCAGCTTTAG GTGATAAAATTGGTTCTTCTTTGATTGCACAAGCTGCTGAT GTACCGACACTTCCTTGGAGCGGTTCTCATGTAAGATTTTT TTTACTATTGTAGTCTTTGTACATCAACAATGATCCTTATA CTTTTAACTCCATAAAGATTGCATCGTTCTATCTCATATTCT CTATAATCTAAAAAAATTCTATATTCCTCTTATTTGTGAAAA GTCTGAACTTCATAACAAAATCACATCTTGTACCTCTTATAT ATTAAACTGCATCTTTATGCCTCTAATTTATTGGAAACAAG ATCTTTAAATCCTTTAAAGGTTGCATCTTTATACCTCTTATTC TGTAGAAATTACATTTCATACCACTTGTTCTTTGCAATTTTCG CATAGATATTAATGCCTACTCTTTAAAAGATACTTTTCTACT TCTTTACCTCTATAATCACATCTTTGTACCTTTACCTCTCCA GTCTTCTTACTCTCTACAGTCACATTTTTAGGTAAAAATTCC TGTGGATAGCTGTTTGGACACACTCCCGGATGATGTATATA GAAAAGCGTGTGTGCATACAACAGAAGAAGCAATTGCTAG TTGTCAAGTTGTTGGTTATCCAGCAATGATTAAGGCATCAT
--	--	--	--	--

				GGGGTGGAGGTGGCAAAGGCATAAGAAAGGTTTGATTCT TTACAATTGGGAAATTATTTCTTCTCCTCAAAGTATACGGC AAACTTTTAAAACCAATTACCTATTGAACTTTAGGTGCAT AATGACGAAGAAGTCAAGGCACTTTTTAAGCAAGTTCAGG GTGAAGTGCCTGGTTCCCCTATTTTCATTATGAAAGTTGCT TCTCAGGTAGGACAATGTTGTAATTGTTATTATTTTCCCAAT TTCAACTCAAAACCCATTATCATTATAATAATATGTTGATTT CTTGTATATACAGAGCCGACATCTAGAAGTGCAGCTACTAT GCGATCAACATGGGAATGTAGCAGCTTTCATAGTCGTGA TTGCAGTGTTCAAAGGCGACATCAAAAGGTAAGTTCATGT TTGTCCTTTTTACTTTCTTTTTATCCTGTTTTGTAAGTCTAATT TTATTTAATACTTGATATGTCAAGATTATTGAAGAGGGGCC AATAACCATAGCTCCACATGACACAATAAAGAAGCTTGAG CAAGCGGCGAGAAGATTAGCAAAGTCGGTTAATTATGTTG GAGCAGCCACTGTAGAGTATTTGTATAGCATGGAACTGG AGACTATTACTTTTTGGAGCTCAATCCCCGGTTACAGGTGC TTGCAATTTCTGTTTTGTGGGTCCTAGTTATGTGTCCTAAGA AGTAAGATGAAATGGTGGGCTCCAAGATGGTTATGATTTG TTTTCTGAAGCTATGTATGTGGAACCTTTCTTTAGGTTGAG CATCCAGTCACAGAGTGGATAGCGGAAATCAATCTACCTG CAGCACAAGTTGCGGTTGGAATGGGCATTCTCTTTGGCA AATACCAGGTTAGATATCAAAAGTTCGTTTTTTGTTGACTA TCATAGTTGGTCTTTTGCTACAATGCAACCATCATGTCAACT ATTTTCTTAATTGCTCTACATGTCTTGTTGGCTTAGAAATAA GACGATTTTATGGAATGGACAATAGTGGAGGATACGATGC TTGGAGGAGAACATCTGCTCTTGCAACTCCATTTGACTTTG ACAAGGCAGAGTCTATCAGCCCAAAGGTCATTGTATTGC TGTACGTGTAACAAGTGAGGACCCAGATGATGGATTTAAG CCCACTAGTGGAAGGTTTCAAGGTTTGGAAAGCAGACTAACA TATACCATATACCCCTACAAATATAATATATATCCTTTTTTTT TTTTTTTACCATATTGATCGAATTCCACTTTTAGGAGCTAA GTTTTAAAAGCAAGCCAAATGTCTGGGCATACTTTTCTGTC AAGGTACGCTGGGTTCAAACCTTTTTTTTTTTTTTTGAAGTT CCAATTGACATATTCTAAAATGTTTGAACATTGCAGTCCGG AGGAGGCATTCATGAATTCTCAGATTCTCAATTTGGTAAAG ACGACTGGATCTTGTTTGGTTGAAATATCTTGAATACTCAC TTATTGGTGTAGTTCAAGTTTACATTCTTGGTCAAAACGTTT ATGTTCTCATTTTAATTCTGTATCTATCTTAGGCCACGTTTTT GCATTTGGCGAGTCAAGACCTTTGGCTATTGCAAATATGGT TCTTGGGCTGAAGGAAATTCAAATTCGTGGCGAGATCCGT ACGAATGTTGATTATACAATTGATCTGTTACATGTGAGCAT TTTGGGGTTTCACAGCTAACAAATTTCTTATTTTGTTTACCA TAATGAGTTACTTCATGGCGATATAAGGGGTGAGCCATGG AGCAAGTGCCATGTATCTTAACAGATAAATTGTTATGTTCA TGTTTGGCGAGTACTTACACATTTGAGAATGTCGAGAATTT GATTATATTTACCAAACGTTCTTATTGCTTCACCTAAAATG TGAACGTTTTCTTACATGCTTAGTTTTTATTCTTTTTCTATA CTGTAGGCTCCTGATTATAGAGAAAATAAAATACATACCG
--	--	--	--	---

				GTTGGTTAGATAGCCGAATTGCTATGAGGGTTAGAGCAGA AAGGCCCCCTTGGTATCTTTCAGTAGTTGGGGGAGCACTTT ATGTAAGTACAAAATACCTCTTCTTTCTATATTCGTCATTT TTAAAGTACTTTTACTTACCATTGATGTTTGTTAACTTCAGA AAGCTGCTGCTAGAAAGTGCAGCCATGGTCTCGGACTATGT TGGTTACCTTGAAAAGGGCCAAATCCCTCCTAAGGTTTGTC AGATATTTTAGTATTTTTTTTTTAATTTTAAAGAGTTGGTTCTC GTAATGTTTACATTGATGATCAGTATTTGTCTGTTTTCTTAC TTTCAGCATATATCATTGGTCAACTCACAAGTTTCTTTGAAT ATTGAGGGCAGCAAATACACGGTAAATAACAAGATAACTG CCTATCGTTATTCGTTTCATAAAAATGGTTGTTCTTGAAGTTT TCTTTTGTGTGTTTTTTTTCTTCTGATTTTTTCTTTTTATTG TTAGATTGATATGGTAAAAAGAGGGCCAGGAAGTTACAGA TTGAGAATGAATCAATCCGAGATTGAAGCAGAGATACATA CACTACGTGACGGAGGCTTATTGATGCAGGTACTTAATCC ATACGCTCTATTTTTCTTCTATTTGGTTTATTCTGTCAAATT TTCTTTTTATTTGGTTTATTCTGTCAAATTTCTTTTTATTG GTTTATTCCGTAGTTAGTTTGTGATTAAGTACTACTATATT AAGTCATTGGTTGGTATGTATACATATAAACTCGAATATA AGCATTTTAATGATGCCAAACCTATATGTAGTTTTACTCTTT AGGATTTTCATGATATACCTAGGAAATCCCTCGTGTCTTTGT GGCAGCTAGCAAGTTGAAGATTAATAATATCAATAAAGAA ATTCAGAGAATTTAATGCAGCATGTTCTAAGGGAGTGTTCT GGGGATGCATTCTGAAAATAATTATGTGATATTTAGTAAAA TTGCAATTAAACGTGGTGCAAGAAATAGTGTTTGGATATG CTTCTGCTATAAAGTTCTGGCAATCGCTGTATTGAGTGTTT GACGGATTATGTCTATTTAAGAAGGTGGTAGATAAACTAA AAGTATACATGGTTAGTGGTGCTGTAAGCATTTGCCATCAA AAAGTAGGTAGATAAAGGAAGAGTGCTATAAGTAGTTTTA TGCTACTTTTTGGTTATCGAGTTCGTTGCAGCTAGTATCAA ACTAATTCTTTAACTATCGTAGCTGTAATAGGTCACCCTGA ACATTTCAATTTATTGCAACCTTAAGTTACATCATTTGATAA TCATGTTCAAGACACATTCTTATTTTATACTCTGATATCATA TGATTTGTGGTTGGTTGATTCAATGATGTAGTTGGATGGG AATAGTCATATATTATACGCCGAGGAAGAAGCTGCCGGTA CTCGCTTGCTTATTGATGGACGGACTTGCTTGCTTCAGGTG CGAACAACTAGTTCTTTTCTTGAACCTTATTTAGAGGTTGCC ATTTCAACCATTTATCTATGATGGGACAATTTAAACAATGT TTTACCCTTAATGGTGTATTCAAATGGGTCAACAGTGACCC AAAGTACATTCTCACTGGAGCAAACCTGCCTGTATCATTTTT TTTTGTGAGGTTCAATTGTTTTGAATAATATTGTGTTAATTT TCATATTTAGTAGACTAAAGTAATTATGTAAGTTGTTGTGA ACCCGTTTCGATCTGCTCAGGTTATACTCGACCGGTTGCAAT CCTCCTAATTTGCCACCTTTACTATTACTTACTATTTGGGTT ACCTGTTTATAGAATGATCATGATCCTTCCAAGTTGATGGC TGAAACACCATGCAAACCTTCTAAGGTACTTGGTCTCAGATG ATAGCCATGTTAATGCTGACACACCGTATGCTGAGGTTGA AGTTATGAAGATGTGTATGCCACTCCTTTCACCGGCTGCTG
--	--	--	--	--

				GAGTTATACAATTCAAGATGTCAGAAGGTCAAGCCATGCA GGTTAGCATGTCACTTTTTCCCATTTTTTAAGAAGTATTTAC ATTGTTCAGTTTTTCCGAACATCCAAGAATAAAGCTCTTGG TTCTATGTTTTTGCCAACTACTTACAGCTATTTATATTTACAT GTTAATAAAATGTTCTATCGATTGACTTCTTGAGTCATTGT GCTTATCGCAACTCAATCTTCGTTATTGTACAGTGATTTTTT AAATGTAATACTGCCAACTTTTTGAATAAATCGTATCAAAT GTAATCTTTAAGCTATATAACAAACATATGAATTTGATTTTC CAAATAATATCTACAGTTCACAAACAAATGCTTGTTTCCTGT TTGTTAATAACATTTTTGTCTTCTCTAAATCATAACACAA AACCAAAATTGTTGATCATTCTGATGAATATAAATCTTTGT ATATGTAGGCTGGTGAGCTTATAGCAAGGCTAGATCTTGA CGATCCGTCAGCTGTAAGAAAAGCAGAGCCTTCAATGGA AACTTTCCTCTTCTTGGGCCTCCAACGGCCATGTCAGACAA AGTGCATCAGAAGTGTGCTGCAACTTTAAATGCTGCTCGA ATGATTCTCGCAGGCTATGATCATAACATTGATGAAGTAAC TTGTTTGCCATTTACTGATTTCAAATTTTCTGAAAGATTATT CTGTTAACAGTTCTGATCTTTGATCGTAGGTTGTGCAAAAC TTGCTTCGTTGTCTTGATAGTCCCGAGCTTCCTTTCCTTCAG TGGCAAGAATGCTTTCAGTTCTAGCAAATCGTCTCCCTAA AGATCTAAGAAACAAGGCAAATTGATATTTTACCCTTTTTT TTTTCTTTTCAAGCAGTTAACATTGGGATTATTTTTCTAAAT TCAATATGTTTTGTATATTCAGTTGGAATCCAAGTTTAAGG AGTACGAAGGAATTTCCACACAACAACTATTGACTTTCCT GCTAGAGTTCTACGGGTCATTCTTGAAGTTAGTTGTGATCA GTAGTTTTCTTTATAAGTCCTTTCTTTGATTTAAAGACATAA TTAGTTATATGTTACCTTTGTAATGTTTTCGTTCAGACCCA TCTTGGATCTTGCTCAGAAAAAGAAAAGGGAGCCCAAGAA AGGCTCGTTGAGCCATTAATGGGTCTTGTAAGTCATATG AAGGGGGAAGAGAAAGTCATGCACGTGGGATCGTTCATG CTCTATTTGATGAATATTTATCTGTTGAAGAGTTGTTGAGC GACAACATTCAGGTGCGTTTGTTAGGATCGCCGATCCAGT ATTTTGGATTTTCGATAGGGCATGCACTTGCATTACCATAG TCAGTTTATATTTTATTTTATCTTGTACACGACAACAAAGT ACCTTTTTTCAAAGTATAAACTGCACAGGTTATGTGCTCC CAAAGGGTTTTTTAATACTTTGATCTATGTGGAAATGGTAT AAGAGTTTTAATCATTTTGACATTAATGTCTGGATAAATTT GTTACGGGTAAACCAATCAATCTAAGCCAAACCAAAAGTT ACCTGCAAAAGCTATTACCTAACCCACCCATTTTGCCACCTC TGTTGGTTTTCTTTAGGTCTACTAATGGTTATCGAGTAAATT ATATTATAACATAAGTAGTAAACCAAAATCCTGTACCTTTT AGGCTGATGTAATCGAACGTCTTCGACAACCTATAACAAGAA AGATCTCTTGAGGATTGTCGACATTGTCCTTTCCCATCAGG TACACATGTTTTTTGTTTTTTGTTCTCCCTTTAATGTGTATT TTATACCGATCATTAATATATGTCCATGCAGGGTGTTAGGA GTAAAAACAAATTGATACTACGGCTGATGGAGCATTGTTGGT TTACCCCAATCCGGCTGCGTATAGGGAGAACTGATACGA TTTTCTCAACTTAACCACACAAGTTATTCTGAGGTCATCATC
--	--	--	--	--

				GTCATATATATACACTGTTACAATTTTGATCATCTCAATCAC TTTTCTGTTAGTACTGAGTTTATGTTAATTGATTATTATTAA TAGTTAGCACTGAAGGCAAGTCAACTTTTAGAACAACTA AACTAAGTGAACCTTCGTTCAAGCATTGCGCGAAGTCTTTCT GAATTAGAGATGTTTACTGAAGAAGGTGAAAATATGGATA CCCCTAAGAGGAAGAGTGCCATTAATGAAAGAATGGAGG ATATTGTGAGTGCTCCATTGGCAGTTGAAGATGCCCTTGTT GGTCTTTTTGACCATAGCGATCACACCCTTCAAAGGCGTGT TGTTGAGACCTATGTTCTGAAGATTATATCAGGTTTTTACCTT TCATTTCTGCATCAACAGAGTTGTCAATTTGTTGTCATAGA AAATTGAAGGTGTTTGATCAGATTGTTTTAAATAAAATGTG GTTTAATATATGCATACATCTTTAAAAAAGAAACGACATG TATTTATTGGTAAAAAACTAAACATCAAATCAAGTGTGGA TTTTATACTGTTTTTTACAAAACCTTTGTAACTGATTATATG TTGTTTACTTGAACAGATAAATGTTTTAACTATTAAGAAT ATTTAAAAGATGGAATAAGAATAAATTTAAAGTCATTTCTG AGTTGTGGCCCTTGAGAATAGCTGTTTCATGTAGTTAGTAG ACCTATTTGACTTTTTTCTAAAATGTATACTACACTGTTTATT AATGCCTACTCAAATGAATCGGGTTGTCTAAAATAAAACAT CACTTATAACAACAATAAAAGAAGCAAAGCAGTCATTTTA GTTTGCACTTTTGCAATTCTCTTGGTAGGAAGAAATCTAAT ATGATTTTAACTGACCATGCTTCTCATATCTGTATCAGCCAT ATCTCGTGAAGGGGAGTGTTAGAATGCAGTGGCACAGATC CGGACTCATCGCTACATGGCAATTTATAGAAGGACTCATTG GAGAAGTTAATGTGCCTGACTATGAACAGAATGAAGCTCC CTTGGAAGACAAGAAATGGGGAGCTATGGTTATTATTTAAA TCTCTTCAATTTTTGCCTGATGTCATAAGTGCATCTCTTAAA GAAACGAGTCATAACCTTCCCAGAACAAGTCAGAATGGGT TTGCTGGTCATAGTAACCATGGTAATATGATGCACATTGCT TTGGCCGGCATAAATAACCAGATGAGTTTGCTTCAAGACA GGTATGTGATGATAATGTTACATGAAAAGATACCATCAAA CCTGCTTTATGATCTTTGTGTCATGCTCAAGAAACAAAATA ACTGGATAAATATAAAAACTGAGACCCATCATCATTTCGATG ATGCATGCCATGTTAACAGTCGGTAGATTTGATGGCTTATT CATTAGCTGGTGACATATATTTGCCCTGTTGATGTTATGTTT ACTTGTTATGTGATGAACTGTAGTGGTGATGAGGATCAGG CTCAAGAGAGAGTCAACAGGTTAGCAAAAATACTCAAAGA TAAAGAAGTAAGCTCGAGTCTTAAAAACGCAGGGTATGGA GTGATCAGTTGTATAATACAAAGAGATGAAGGGAGAGGC CCCATGAGACACTCATTTCACTGGTCAGAAGAGAATCATT TTATATTGAAGAGCCATTATTGCGTCACTTGGAGCCTCCAT TATCGACATATCTTGAACCTGGTTTGTGCTCAAAGACCCTT CATAATTTTTCAATTCATTAATAATATTATAATACTAATGAA GTTGTAAATGTATTGCTTATGCAGGACAACTTAAGGGCT ATGATAATATAAAGTACACTCCGTCGCGTGACCGTCAATG GCACATGTATACTGTTGATGCTAAACCACTTCCGGTACAAA GAATGTTTCTTAGAACTCTTATAAGGCATCCAACAAAGGAA TGGTTCTCGCCCTCAGGTTACCAAGGTTTCAGAAGATGAGG
--	--	--	--	---

				GCCCACGGTCTCAGTTAAATCTCCCTTTTACATCAAGGAGC ATCTTGAGATCATTAGTGACGGCTATGGAGGAGTTGGAAC TTCATGTTTATAATGCTACTGTCAAGTCTGACCATGCTCATA TGTACCTATATGTATTGAAGGAGCAACAAATTGGTGATCTT GTTCCATACACAACGTAAGTATTCATGTCATCTTCATGAATT TTTTTTTATCATATGCACTCATTTAACAATGGTAATATGTTG TGAACAGGAGAGTGGATGTAGATTCTGGGACAGAAGATT GCGTGGTTGAGACACTTTTGGTAAGGCTGGCTCGTGAAAT CCATTCAATGGTTGGTGTAAGATGCACCGGTTGGGAGTT TTTGAGTGGGAGGTGAAGCTTTCATGGCATCATCGGGTC AAGCCAACGGTGCGTGGAGGGTTGTGGTCACAAATGTGA CTGGTCATACCTGCGTTGTGCATGTAAGTCATTAGATAGGA TTATAGACATTTTCAAGCAATACCCCTCAAACATGCTTTTACCT AAAGTCAATTGCTGCAATTTTGATTTAGGTATATCGTGAAC TGGAAGATACTGGTTTGCACAAGGTGTATCATGCTACCTCT ACATTGGGTCCTTTCATGGCGTACCTGTGAATACACCCTT TCAGCCTTTAGGATTACTTGATCAGAAGCGTCTTTTGGCAA GGAAAAGCAATACTACGTAAGTGTACGACTTTGCACTGGT ATAACTATCATTTTGCTCTTCAATGCTTGATGGTCACCTAA ATTTGATTGTACAGAAACACTTATTACCATATCTATATTTCC AGGCATTTGAAGCAGCTCTTGAGAATATCTGGGCGTCGAA AGTCGTAAGTGATAGCAGGCCTAAGGGTAAACTTGTGAAT GTGACGGAGCTCATGTTTGCTGAGCCAAGTGGCTCATGGG GAACTCCCCTTGTTGCAGTAAATCGTGAGCCAGGGCAAAA CAAGGTGGGCATGGTGGCGTGGACTATGGACCTCTGCACT CCTGAGTTTCCTGATGGAAGAACGATTTTGGTAGTAGCAA ACGATGTTACGTTCAAAAATGGATCTTTTGGTCCTCTTGAG GATGCCTTTTTTGAGGCAGTTACTGATCTCGCTTGTCGCAA GAACTGCCACTAATACTTGGCAGCAAACTCGGGGGCC CGTATCGGAGCGGCTGAGGAAGTCAGATCTTGCTTTAGAA TTGGGTGGTCTGATGAGTCGACTCCTGAATCGGGATTCCA GTATTTGTATCTTACTCCTGAAGATTATACCCACATCAAATC ATCTGTAATAGCTCATGAGGTTTATCTATCAAATGGCGAAA CAAGATATGTCATCGATACTATTGTGGGAAAAGAAGACGG ACTCGGGGTTGAAAATTTGAGTGGTAGCGGGGCAATTGCT GGTGCCTATTCGAAAGCATATAAGGAAACGTTTACATTAAC ATATGTTACTGGAAGAACAGTTGGGATAGGCGCATATCTG GCACGTCTTGGGATGCGGTGCATACAGCGGCTTGATCAAC CGATTATATTAACGGGTTTTTCTGCACTGAACAAGCTTTTG GGCCGAGAGGTTTATAGCTCACAGATGCAACTAGGTGGGC CTAAAATTATGGCTACGAATGGTGTGTCCATTTAACGGTG TCCGATGATCTCGAAGGTGTCTCAGCTATCTGAATTGGTT GAGCTTTGTTCCACCTTATGTCGGTGGCCCACTTCCTGTTTT AGCACCTGTGGATCCACCAGAAAGGCCCGTTGAGTACCTC CCTGAAAACATCATGTGATCCTCGGGCAGCTATTTGTGGGG TCGTGGATAGCAACGGTGAATGGGCTGGTGGGATTTTCGA TAGAGACAGTTTTGTGGAGACATTGGAAGGTTGGGCGAG GACAGTCGTAACGGGTCGTGCCAACTTGGCGGGATCCCA
--	--	--	--	--

				GTCGGGATCGTTGCTGTTGAGACACAAACAGTGATGCAAG AAATACCTGCAGATCCCGGGCAGCTTGATTCACACGAACG TGTTGTTCCCTCAAGCAGGTCAGGTCTGGTTCCTCGGATTCCG CCAGCAAAACAGCTCAGGCATTGATGGATTTCAACCGAGA AGAGCTCCCACCTTTTCATCATGGCTAACTGGCGAGGCTTTT CTGCAGGTCAGCGGGATCTTTTTGAAGGGATTTTACAAGC AGGGTCAACAATTGTTGAGAATCTCAGAACATATAACCAG CCTGTTTTTGTATACATCCCGAAAACCTGGAGAACTTCGTGG CGGTGCATGGGTGGTTGTGACAGTCGAATCAATTCAGAT CATATAGAAATGTATGCAGAAACCACAGCAAAAGGAAATG TCCTTGAACCTGAAGGTATGATTGAGATTAAGTTCCGAAAC AAAGAATTGATAGACTGTATGGGTCTGTCTAGATCCACAGA TTCGAAGCCTTAAAGAAAGACTTCGAGAAACAAAGTACGA TCAAACGATCGTCCAACAGATAAAATCTCGTGAAAAACAG CTTTTACCGATTTACACTCAAATTGCTACCAAATTCGCTGAA CTTCATGACACATCATTGCGAATGGCTGAAAAAGGTGTGG TCAAACAAGTTGTTGACTGGAAAGTATCTCGGTTTTTCTTTT ACAAAAGGCTTCGTCTGAGGCTCGCAGAGGCTTCCTTGAT CAGTAGTGCTCGTGAAGCTGCTGGTGATACTCTTTCCTACA AGTCTGCTCATGAGTTGATTAAGAAATGGTTTTTGAATCG AAAACCTGAAGATTTATGGCTTAGTGATGATGCTTTTTTTCAC TTGGAAAGACAATCTGATGAACTATAATGACAAGTTAGCC AAGCTACGTACTCAGAAGCTCTTGGATCAGTTATTAAGAT TGGTAATTCACCATTGGATCTACAAGCTTTACCACAAGGCC TCGCCGCACTTTTGCAAGAGGTGAACAAACTCTCTTTTATT TTCCCTTAGAACTATTTAATTTAATTATCTATGAATGCGCAA AAACAACAGTTTTATTTAAATATTTTTCTTCACTATGCTGC AGGTGGATCCAGTGACCAAAAATAAACTAGTCGAAGAACT CTTGCGCGTAATTAAGTAGGTAATTATACACAAAGCTCATC AGATTCTTCTTTGTTTGTCAAAGTGAGAAGCCTTTTGAGC AGTGTACATTATAAGTAGGTGTCATAAGAAAACAGGCTCA AAATAGTTTAAAGTATATGAGGTTTACCATGTTTCAAGATTGT TTATTTTTCTTCATAAATTGTATAATACCATCACATTTCTAT CGCATTTTTTATATATCTATATATAAATGGTCATTTTTTATTT TATTTATTTTTATAAAAGGTTCTCTTTGACCATCTTTGTGTT TCCTTTTGGCTCTTCTTGTCCATCTTCAGTTCTTCTCCTTCT TCGCTTTCTTTTCGTCTCTTGAGTTATCTTTCTTTATCTTCTC ATCGTGTACGGATTACGTTGATATGAGCACATATGGCAAA GTTGATTCAGATAACTCCACAACAAATTTTCACTTGATTTTT GAATGTTTATAAGCTTACAATACATCCATGCACTCATGTTC ATCTGCTAAATGTACTAGTACATAATCAAGTTAAAACTTC AACCCAAGAACACTATTCCACTAAAAATTTCTGGCATGATCT CATCATAAAATCTACAATCATTGTTTATTGTCAACCATCAAA GACCTGTAGAATACTAATGAACAATTGCAACAAGTGAACA GTTTGCCCCTTGTTACCGTTGAATGAATATTTCAAAGATCA TGATCGAGCCTCGATCTTGACCAGCACTGAAACATTATAAA AACAACTTCCATTTTAAATGTTTGTCTAATATAGGGAAGTG AGAGTCAGGTAGCCCAATGTTTTAGACCCAGAGCTAC
--	--	--	--	--

				TTGTTCTGGCTGTGGGGTTAAATATAGTTATATAGACTTAT GTTAAGTGCAGGCATTACACACTTTTTTGCATTATATGTTTA CGCGCAGATATATGTATTTGTGACCAGTTAAACCGGTGTG CTTCTCTTTTCTGTGTAATGAGCTCTGTTATGCAGTTTCGGG TTTGAGTCGCTTTGTGATAATTTTGTATGTGTTACTGGCCC GGCCAGATAAATGATCGGTTGATATAGGCTGGTTCTAGTC ACACTAGACGCTGATTAGTGGTTAGGCTTCGATGTATAAAT CAAAGTTATAGCTACATTCAAATCATTATTATAATTATTTCT ATTTCAATCAAAGTAGGAAGATTATATCATACATAAATATG ACACACAGGATGAATTTCATAACTTCAATTCTACTTTTCAT TAAAAGCTTAATTTATCTAGTTGCCCGGTTTCCCATTTCTTCT TCCCGTTGCCGCCACCAGGCCTTTTACTCCACCATGGCCAC CCCCTCCTTCCCCAACCACCAAATGGATATCCACCCAGAT ACCTGGCCATCCACCACCTGGCCAAAATCCGCCACCAGGA AAATATCCACCACCTGGCCAATAACCCCATATAACGGATA TGATGGGTCATAGCCCCCTCCATATCCTTTACCTCTTCCTGG TCCACCGTACCCTCCATATCCATCACCCGAATCATAACCTCC CCCTCCACCATATCTGCCACCATGATCTTTTCCACGTCCTTC ATCATAACCACCATCTTCTCCACCATGATCTTTTCCACGTCC TTCATCGTCGTCCCCTTTGCCTTCATGATCACCATCTTCACC ACCATGATCTTCTCCAGGTTTCATCATCATCATGGTCATCGCC TTTTCCCCCTTCATCACCATGATCTCTTCCTGGTCCATCTTGT CCACCACCTTCATGATCACCACCTTCATCACCATGATCTTGT CCAGGTCCATCATCATCATGGTCACCACCTTTTCCCCCTTCG CCACCATGATCTCTTCCTGGTCCATCTTGTCCGCCACCTTCA TGATCACCGCCTTCACCA
50	Conyza canadensis	gDNA Contig	17803	CATAATACTCTTACACCCCTACCTTCTTTCTAATCATTACAC GCTCTCCTCGACCTTCTATCACCTCCGCCGCCGCCCTCCTT CTCCACCACCGCCCTCGATCTCCACCACCGCCTCCCTTTTAT ATTGTCATCGCCTTTTAGCCGTTGCAACGCGCGGACACTAT GCTCGTATTAAAAGTAGTAACGTAATAAACATAAAGTTTAC GTAAAGTTTATATATTTTCAATATTTTGTATGATTTTGTACT GATGAATATATATTTAAGCTAAAATCATTCACTCTAGAGTG TAAGTCGAACGGGTCCAACTGAACTAACTATTTGTCTAT GGTAGTCAAATTCTTAATCTTTTTGGTATCGATCGTTGTGTA GTGTTGCACACCTCACTTGATATTAGTTTTATGTGATTATAT ATGGTTAATTTAATTTTTCTTTGATTTTTGATCATGGTCTTA AATATCATTAAAGGTGAAGAAACATGTGAAGAGGGGATAA ATTTGGAGAAAGAATGGCATCACTAAAACAGATAGTGTCA CCCTATGGCAAGGTTAGTCCTTCTTTAAGTTTATTAATTATA TGTAATTTGTTTGATTAGGTATATCATATATGTATACTAGTT GTTTTGATTTCCAATCTATACAAGTAGGATTTTGCTAAACAT AGTTGTAAGGGTTATAGTTACAACACAATAGAATGGTATA CATACATTATATATATATAAAGATATATAACTGTTTATTAAT AATAATCTTTAACCGTCATGTAAACCAATTTACTTTGCTTTA TCCATATCCTTAAAGGCTATGAATAGCATAGTCGATGTAAG TATATGGTTGCTTAGACGGTGTGTTAATGTTGATCGTACAG GAGTCTAGACTTGGACCATTGTGTTTTAGAGAAGAAGGGA

				ATCGAACGCAAAGGTAAAACCTTCCTTTATTTTTAAGAGCAT AGTTATAATATCATTCAAATTTAACCAACAATTTCTGTTACA TACATCGAAATAGGCTTGATTACTCATACCTATAGAGATGA GTGACATGTGTGTATGAAGATTTATATATTGAATTGTAGGA TATCATTTTCCCATTTCTAATGTACTAGTTAATTATGGTTTG CGGTTTTTTTCTTTGTTGTATGTCCATTACAAAATTACAGTT GGACATCTTCTTGGTGGAATTCAGATGATATAAAATAGTTA ATTTTACCAAACACTACATCATTGGTAGAGAGAAATTAGAA CGTAGATAAATGGTTTGTAAGTTTCAAAGAGATACTCGTA TTACATAAAATGTTGTCTTTTGCAATTCGCAGATTTCCAATT ACAACAGATTTGACACAATGTTCTATTATTTGTTAATCCAAC CATGAACCACTAATAAAACAGTACAAACATCTTGAATAAAA AAAAGCCACCAATACATTATTGATTGTTGTATGCTTTTTGTC TCCATATAATGACCAGTAATATCAAAAAACATGTATTTTATT CTTATTCTAGCTTAAAAAGGTTCAAAAATGCACATCCAAC TTCTCTCTTCTTCCAATCATAGCTTTTCAAATTTAAAAGCAT ACACGTAAAAGAAACATATGGATGTAGATTGATATGTGTG TGGGGGGTAGTTGGTTAACCATGTCACGTGCTCTGCATCA CCTCCCATCCTTGGACCCCAATTTGTTTTTTGTACCTACTAC ATATTTAAGTAACTTTATGGCACCTCACCAAAAACCAACCA AACAAACCAAACCTCCCACTATACATCACTTAATTGCACAC ACACATATACCTCAACAAGTACTTACATCTCTCCAGATTTCT TGTCATTCCAATTTTCTTGTTTTTAATCACAATTTTGTTGTTG TTGTCAATGTCTGTCTCTTTTCAAACCAGCTAAAAAAGAA GCAAATCTTGATTTGATTGAGCTGTTGTTCCACTTGTTTAT GGTTAGTCTTTCTCATTCTTTCACCCCCCAAGTTTAAATCTTT GAGTTAATTTCTTCAAATTCCTGTGTTTTTTGAACCGGGTTT TTATCAGTTTTGTTGAGTTTAGCAAAAAAGTAGAGTTGGGT ATGTAAAGATTGAATCTTTTTACTGGGTTTATGTAATTTCTT TGAAATTTATAAGTTTCTTGCAATGGGTATATGATTTTCTAT TGATTGAAGTGGTTAATAACAGGATTTGGTGAGTAAAGTT TGAATCTTTCGAGTTATGGATTTATGTCATACCTTTTCTTGC CTTTCAAATAAAGTCAAAGCTTTAGTTTTGTGATTTGACTT TGGTATCCCTTCAAATAAAGTCAAAGCTTTAGTTTTGTGA TTTGACTTTGGTATGCTGTTGCTCCCATGAATATTTTCATGC TGTTTGTAATTGTAATATATATTTTGATAAATTCAATTTTG TTATATTTGTTTCCTGATAAAGTTTTAATGTGATTAGTGATT ACTTCAATTTGATGAGTTCAATAATAATAAGAAATTTAGAA CTTTGAACCTCGTAGTTCTAATTCGAGGTTTCCTAGCTCTAT GTAAACCCCACTATATTCTCCATTATAACATACGTTTATGTG TTAATTTATTTAGACATTTTAATATTGACTCAATTATAACAT AGGTTGAGCTGAAAATTTAATTTCTTTGTTAGTGAATTGTT GTGACTTTTTTTTTTGGTAGTTTGCGTTGTGATAGTCAGGA GACAGAAAGGGCAATTTGTTTCTGTTCTTTTAAAGTTAGAT AGGTGACCATTTTCGGTAGATACTAGATAGTGCAAAGATAT AGTGTTTTTTGTAAGTACCAAGTACTTTATGAACTTACCCA ATGATAACAACCTTTTGATGGTTCAGTGGTTCAGCCTTCTCTT TGTCCTAGACTAATTAGTCCAATCTATCTCTCAGTATATAT
--	--	--	--	--

				TTTTAGGTATTGACATATTTTATGATATTGGCAAGTTGGT AGTTTACTTTCAACTTTTAAGCAATATATGGACATATCCACA TATATCAGTTCCATATTACTAGCATGTATCCTATTCTGGGTT AGTATGCTACAAAAAGGGTTTACATGTCAAATGCAGAATT GTTCAAAGAAAACGAGTTGTTAGACCTAATAAGTCAAAGT AATGCTTACTCTACACTTTGCTTACTGTTTGGCAGTGGCAC CATGTCAGAAGCTCAAAGAATGCTTCTAAGTGGAAAGTTTC AATTATTATGGTAATGGCATTGTAAATGGGGCGATTTCCT GAGGTCTTCTGCTAGTAGATCTGCAATTGATGAATTTTGT ATGCACTTGGAGGCACCGAGGCCAATCCAAAGTATTTTAATT GCAAATAATGGAATGGCGGCTGTAAAGTTTATAAGAAGTG TGAGGACATGGAGTTATGAAACATTTGGCTCAGATAAAGC TATTTTGCTGGTAGCCATGGCTACACCGGAAGATATGAGG ATAAATGCCGAGCATATTAGAATCGCTGATCAGTTTGTGA AGTCCCTGGTGGTACAAATAATAAATTATGCGAATGTGC AACTCATTGTAGAGGTATGTAGCTTATATACGTGGATCCTA CATCATGATTTATAAGCTTTAAAATGATCTATTTTATGAAAC ATTGTGCATTTAATGATGCCTGAAAAGATTATGTTTCCAAG ACTTATTTTGCTTAACTTGTTGGATCAAATGTTGATCTGCT TCCATGAATATAGTAATTCGAATATGTTGGTTTAATCTTCAC TTCAAAAAAAAAAAAAAAAAATACTTTCAACTTTTATGTTAGC ATTGAGTTTGAATCTCAAGAGAACTTATTTCACTTTTGA TCGATATGGATGTGTTGAACATGTAATTGATAATCAGCAAC ATTTTAAAATTTATTAGAAAATGACGAGGGGATGCCTCTTCA GGCTACGCGGCGAGCCTTTGGCTCTAATGTAAGCGGCCTA ACCGGTATACCCGGGTCTCTTCTGAGATCTTTGGGTACCT TACCACTAGACCCCCTTGGAGAAGGTTTTAAAAAGTATTAG AAAGTATATAAATATAAAATAGAAACGATATGTAAATTTA AAAAATATGTTTCATTGAGTTATCTTACACCTGACTATTTGA TATTGAGCATTAAACGAGTTTGATGGAAAATATAAAATAA TTAATATTTAGCTATCATCATCAATTCCTTTAAAATGGTTCA TTTATGATTTATGACTTCAGACTGCTGAGATAACACATGTT GATGCTGTTTGGCCTGGTTGGGGCCATGCATCCGAAATCC CTGAGCTGCCTGATGCATTGGAAGCAAAAGGTATTGTATT TCTTGGGCCACCAGCTTCCTCCATGGCAGCTTTAGGTGATA AAATTGGTTCTTCTTTGATTGCACAAGCTGCTGATGTACCG ACACTTCCTTGGAGCGGTTCTCATGTAAGATTTTTTTTACTA TTGTAGTCTTTGTCACATCAACAATGATCCTTATACTTTTAA CTCCATAAAGATTGCATCGTTCTATCTCATATTCTCTATAAT CTAAAAAAATTCTATATTCCTCTTATTTGTGAAAAGTCTGAA CTTCATAACAAAATCACATCTTGTACCTCTTATATATTAAC TGCATCTTTATGCCTCTAATTTATTGGAAACAAGATCTTTAA ATCCTTTAAAGGTTGCATCTTTATACCTCTTATTCTGTAGAA ATTACATTTCATACCACTTGTTCTTTGCAATTTTCGCATAGAT ATTAATGCCTACTCTTTAAAAGATACATTTTCTACTTCTTTA CCTCTATAATCACATCTTTGTACCTTTACCTCTCCAGTCTTC TACTCTCTACAGTCACATTTTATAGGTAAAAATTCCTGTGGA TAGCTGTTTGGACACACTCCCGGATGATGTATATAGAAAA
--	--	--	--	---

				GCGTGTGTGCATACAACAGAAGAAGCAATTGCTAGTTGTC AAGTTGTTGGTTATCCAGCAATGATTAAGGCATCATGGGG TGGAGGTGGCAAAGGCATAAGAAAGGTTTGATTCTTTACA ATTGGGAAATTATTTCTTCTCCTCAAAGTATACGGCAAAC TTAAAACCAATTACCTATTGAAACTTTAGGTGCATAATGA CGAAGAAGTCAAGGCACTTTTTAAGCAAGTTCAGGGTGAA GTGCCTGGTTCCCCTATTTTCATTATGAAAGTTGCTTCTCAG GTAGGACAATGTTGTAATTGTTATTATTTTCCCAATTTCAAC TCAAAACCCATTATCATTATAATAATATGTTGATTTCTTGTA TATACAGAGCCGACATCTAGAAGTGCAGCTACTATGCGAT CAACATGGGAATGTAGCAGCTTTGCATAGTCGTGATTGCA GTGTTCAAAGGCGACATCAAAAGGTAAGTTCATGTTTGTC CTTTTACTTTCTTTTATCCTGTTTTGTAAGTCTAATTTTATT TAATACTTGATATGTCAAGATTATTGAAGAGGGGCCAATA ACCATAGCTCCACATGACACAATAAAGAAGCTTGAGCAAG CGGCGAGAAGATTAGCAAAGTCGGTTAATTATGTTGGAGC AGCCACTGTAGAGTATTTGTATAGCATGGAACTGGAGAC TATTACTTTTTGGAGCTCAATCCCCGGTTACAGGTGCTTGC AATTTCTGTTTTGTGGGTCTAGTTATGTGTCCTAAGAAGT AAGATGAAATGGTGGGCTCCAAGATGGTTATGATTTGTTT TCTGAAGCTATGTATGTGGAACCTTTCTTAGGTTGAGCAT CCAGTCACAGAGTGGATAGCGGAAATCAATCTACCTGCAG CACAAGTTGCGGTTGGAATGGGCATTCTCTTTGGCAAAT ACCAGGTTAGATATCAAAAGTTCGTTTTTTGTTGACTATCA TAGTTGGTCTTTTGCTACAATGCAACCATCATGTCAACTATT TTCTTAATTTCTCTACATGTCTTGTTGGCTTAGAAATAAGAC GATTTTATGGAATGGACAATAGTGGAGGATACGATGCTTG GAGGAGAACATCTGCTCTTGCAACTCCATTTGACTTTGACA AGGCAGAGTCTATCAGCCCAAAGGTCATTGTATTGCTGT ACGTGTAACAAGTGAGGACCCAGATGATGGATTTAAGCCC ACTAGTGGAAGTTTCAAGTTTGGGAGCAGACTAACATAT ACCATATACCCCTACAAATATAATATATATCCTTTTTTTTTT TTTTACCATATTGATCGAATTCCACTTTTAGGAGCTAAGTT TAAAAGCAAGCCAAATGTCTGGGCATACTTTTCTGTCAAG GTACGCTGGGTTCAAACCTTTTTTTTTTTTTTTGAACCTCCA ATTGACATATTCTAAAATGTTTGAACATTGCAGTCCGGAGG AGGCATTGATGAATTCTCAGATTCTCAATTTGGTAAAGACG ACTGGATCTTGTTTGGTTGAAATATCTTGAATACTCACTTAT TGGTGTAGTTCAAGTTTACATTCTTGGTCAAAACGTTTCATG TTCTCATTTTAATTCTGTATCTATCTTAGGCCACGTTTTTGCA TTTGGCGAGTCAAGACCTTTGGCTATTGCAAATATGGTTCT TGGGCTGAAGGAAATTCAAATTCGTGGCGAGATCCGTACG AATGTTGATTATACAATTGATCTGTTACATGTGAGCATTTT GGGGTTTCACAGCTAACAAATTTCTTATTTTGTGTTACCATAA TGAGTTACTTCATGGCGATATAAGGGGTGAGCCATGGAGC AAGTGCCATGTATCTTAACAGATAAATTGTTATGTTTCATGT TTGGCGAGTACTTACACATTTGAGAATGTCGAGAATTTGAT TATATTTACCAAACGTTCTTATTGCTTCACCTAAAATGTGA
--	--	--	--	---

				ACGTTTTCTTACATGCTTAGTTTTTATTCCTTTTTCTATACTT GTAGGCTCCTGATTATAGAGAAAATAAAATACATACCGGT TGGTTAGATAGCCGAATTGCTATGAGGGTTAGAGCAGAAA GGCCCCCTTGGTATCTTTCAGTAGTTGGGGGAGCACTTTAC GTAAGTACAAAATACCTCTTCTTTCTATATTCGTCATTTTT AAAGTACTTTTACTTACCATTGATGTTTGTTAACTTCAGAAA GCTGCTGCTAGAAGTGCAGCCATGGTCTCGGACTATGTTG GTTACCTTGAAAAGGGCCAAATCCCTCCTAAGGTTTGTCAG ATATTTTAGTATTTTTTTTTTAATTTTTAAGAGTTGGTTCGT AATGTTTACATTGATGATCAGTATTTGTCTGTTTTCTTACTT TCAGCATATATCATTGGTCAACTCACAAGTTTCTTTGAATAT TGAGGGCAGCAAATACACGGTAAATAACAAGATAACTGCC TATCGTTATTCGTTCAATAAAATGGTTGTTCTTGAAGTTTTCT TTTTGTGTGTTTTTTTTCTTCTGATTTTTTCTTTTTATTTGTT AGATTGATATGGTAAAAAGAGGGCCAGGAAGTTACAGATT GAGAATGAATCAATCCGAGATTGAAGCAGAGATACATACA CTACGTGACGGAGGCTTATTGATGCAGGTACTTAATCCATA CGCTCTATTTTTCTTCTATTGGTTTATTCTGTCAAATTTTC TTTTATTTGGTTTATTCTGTCAAATTTCTTTTTATTTGGTT TATTCCGTAGTTAGTTTGTGATTAAGTACTATATTAAG TCATTGGTTGGTATGTATACATATAAACTCGAATATAAGC ATTTAATGATGCCAAACCTATATGTAGTTTTACTCTTTAGG ATTCATGATATACCTAGGAAATCCCTCGTGTCTTTGTGGC AGCTAGCAAGTTGAAGATTAATAATATCAATAAAGAAATT CAGAGAATTTAATGCAGCATGTTCTAAGGGAGTGTTCTGGG GATGCATTCTGAAAATAATTATGTGATATTTAGTAAATTTG CAATTAAACGTGGTGCAAGAAATAGTGTTTGGATATGCTT CTGCTATAAAGTTCTGGCAATCGCTGTATTGAGTGTTTGAC GGATTATGTCTATTTAAGAAGGTGGTAGATAAACTAAAAG TATACATGGTTAGTGGTGCTGTAAGCATTGCCATCAAAAA GTAGGTAGATAAAGGAAGAGTGCTATAGGTAGTTTTATGC TACTTTTTGGTTATCGAGTTCGTTGCAGCTAGTATCAAAC AATTCTTTAACTATCGTAGCTGTAATAGGTCACCCTGAACA TTTCAATTTATTGCAACCTTAAGTTACATCATTTGATAATCA CGTTCAAGACACATTCTTATTTTATACTCTGATATCATATGA TTTGTGGTTGGTTGATTCAATGATGTAGTTGGATGGGAAT AGTCATATATTATACGCCGAGGAAGAAGCTGCCGGTACTC GCTTGCTTATTGATGGACGGACTTGCTTGCTTCAGGTGCGA ACAACTAGTTCTTTTCTTGAACCTTATTTAGAGGTTGCCATT TCAACCATTTATCTATGATGGGACAATTTAAACAATGTTTT ACCCTTAATGGTGTATTCAAATGGGTCAACAGTGACCCAAA GTACATTCTCACTGGAGCAAACCTGCCTGTATCATTTTTTTTT GTGAGGTTTATTGTTTTGAATAATATTGTGTTAATTTTCAT ATTTAGTAGACTAAAGTAATTATGTAAGTTGTTGTGAACCC GTTTCGATCTGCTCAGGTTATACTCAACCGGTTGCAATCCTC CTAATTTGCCACCTTTACTATTACTTACTATTTGGGTTACCT GTTTATAGAATGATCATGATCCTTCCAAGTTGATGGCTGAA ACACCATGCAAACCTTCTAAGGTACTTGGTCTCAGATGATAG
--	--	--	--	---

				CCATGTTAATGCTGACACACCGTATGCTGAGGTTGAAGTTA TGAAGATGTGTATGCCACTCCTTTCACCGGCTGCTGGAGTT ATACAATTCAAGATGTCAGAAGGTCAAGCCATGCAGGTTA GCATGTCACTTTTTCCCCATTTTTTAAGAAGTATTTACATTGT TCAGTTTTTCCGAACATCCAAGAATAAAGCTCTTGGTTCTA TGTTTTTGCCAACTACTTACAGCTATTTATATTTACATGTTA ATAAAATGTTCTATCGATTGACTTCTTGAGTCATTGTGCTTA TCGCAACTCAATCTTCGTTATTGTACAGTGATTTTTTAAATG TAATACTGCCAACTTTTTGAATAAATCGTATCAAATGTAATC TTAAGCTATATAACAAACATATGAATTTGATTTCCAAATA ATATCTACAGTTCACAAACAAATGCTTGTTTCCTGCTTGTTA ATACCATTTTTGTCTTCTCTAAATCATAACACAAAACCAA AATTGTTGATCATTTCTGATGAATATAAATCTTTGTATATGT AGGCTGGTGAGCTTATAGCAAGGCTAGATCTTGACGATCC GTCAGCTGTAAGAAAAGCAGAGCCTTTCATGGAACTTT CCTCTTCTTGGGCCTCCAACGGCCATGTCAGACAAAGTGCA TCAGAAGTGTGCTGCAACTTTAAATGCTGCTCGAATGATTC TCGCAGGCTATGATCATAACATTGATGAAGTAACTTGTTTG CCATTTACTGATTTCAAATTTTCTGAAAGATTATTCTGTAA CAGTTCTGATCTTTGATCGTAGGTTGTGCAAACTTGCTTC GTTGTCTTGATAGTCCCGAGCTTCCTTTCCTTCAGTGGCAA GAATGCTTTCAGTTCTAGCAAATCGTCTCCCTAAAGATCT AAGAAACAAGGCAAATTGATATTTTACCCTTTTTTTTTTCTT TTCAAGCAGTTAACATTGGGATTATTTTTCTAAATTCAATAT GTTTTGTATATTCAGTTGGAATCCAAGTTTAAGGAGTACGA AGGAATTTCCACACAACAACTATTGACTTTCCTGCTAGAG TTCTACGGGTCATTCTTGAAGTTAGTTGTGATCAGTAGTTT TCTTTATAAGTCCTTTCCTTGATTTAAAGACATAATTTAGTT ATATGTTACCTTTGTAATGTTTTCGTTCAGACCCATCTTGGA TCTTGCTCAGAAAAAGAAAAGGGAGCCCAAGAAAGGCTC GTTGAGCCATTAATGGGTCTTGTAAGTCGTATGAAGGGG GAAGAGAAAGTCATGCACGTGGGATCGTTCATGCTCTATT TGATGAATATTTATCTGTTGAAGAGTTGTTGAGCGACAACA TTCAGGTGCGTTTGTTAGGATCGCCGATCCAGTATTTTGGA TTTTCGATAGGGCATGCACTTGCATTACCATAGTCAGTTTA TATTTTATTTTATCTTGTTACACGACAACAAAGTACCTTTTT TCAAAGTATAAACTGCACAGGTTATGTGCTCCCAAAGGG TTTTTAATACTTTGATCTATGTGGAAATGGTATAAGAGTTT TAATCATTTTGACATTAATGTCTGGATAAATTTGTTACGGG TTAAACCAATCAATCTAAGCCAAACCAAAAGTTACCTGCAA AAGCTATTACCTAACCCACCCATTTTGCCACCTCTGTTGGTT TTCTTTAGGTCTACTAATGGTTATCGAGTAAATTATATTATA ACATAAGTAGTAAACCAAAATCCTGTACCTTTTAGGCTGAT GTAATCGAACGTCTTCGACAACCTATAAAGAAAGATCTCTT GAGGATTGTCGACATTGTCCTTTCCCATCAGGTACACATGT TTTTGGTTTTTGTCTCCCTTTAATGTGTATTTTATACCGA TCATTAATATATGTCCATGCAGGGTGTTAGGAGTAAAAAC AAATTGATACTACGGCTGATGGAGCATTTGGTTTACCCCAA
--	--	--	--	--

				TCCGGCTGCGTATAGGGAGAACTGATACGATTTTCTCAA CTTAACCACACAAGTTATTCTGAGGTCATCATCGTCATATA TATACACTGTTACAATTTTGATCATCTCAATCACTTTTCTGTT AGTACTGAGTTTATGTTAATTGATTATTATTAATAGTTAGC ACTGAAGGCAAGTCAACTTTTAGAACAACTAACTAAGT GAACTTCGTTCAAGCATTGCGCGAAGTCTTTCTGAATTAGA GATGTTTACTGAAGAAGGTGAAAATATGGATACCCCTAAG AGGAAGAGTGCCATTAATGAAAGAATGGAGGATATTGTG AGTGCTCCATTGGCAGTTGAAGATGCCCTTGTTGGTCTTTT TGACCATAGCGATCACACCCTTCAAAGGCGTGTTGTTGAG ACCTATGTTCTGAAGATTATATCAGGTTTTTACCTTTCATTTT TGCATCAACAGAGTTGTCAATTTGTTGTCATAGAAAATTAA AGGTGTTTGATCAGATTGTTTTAAATAAAATGTGGTTTAAT ATATGCATACATCTTTAAAAAAGAAACGACATGTATTTAT TGGTAAAAAACTAAAACATCAAATCAAGTGTGGATTTTATA CTGTTTTTTACAAAACCTTTGTAACTGATTATATGTTGTTTA CTTGAACAGATAAATGTTTTAACTATTAAGAATATTTAAA AGATGGAATAAGAATAAATTTAAAGTCATTTCTGAGTTGTG GCCCTTGAGAATAGCTGTTTCATGTAGTTAGTAGACCTATTT GACTTTTTTCTAAAATGTATACTACACTGTTTATTAATGCCT ACTCAAATGAATCGGGTGTCTAAAATAAAACATCACTTAT AACACAATAAAAAGAAGCAAAGCAGTCATTTTAGTTTGCA CTTTTGCAATTCTCTTGGTAGGAAGAAATCTAATATGATTTT AACTGACCATGCTTCTCATATCTGTATCAGCCATATCTCGTG AAGGGGAGTGTTAGAATGCAGTGGCACAGATCCGGACTC ATCGCTACATGGCAATTTATAGAAGGACTCATTGGAGAAG TTAATGTGCCTGACTATGAACAGAATGAAGCTCCCTTGGAA GACAAGAAATGGGGAGCTATGGTTATTATTAATCTCTTCA ATTTTTGCCTGATGTCATAAGTGCATCTCTTAAAGAAACGA GTCATAACCTTCCCAGAACAAGTCAGAATGGGTTTGCTGG TCATAGTAACCATGGTAATATGATGCACATTGCTTTGGCCG GCATAAATAACCAGATGAGTTTGCTTCAAGACAGGTATGT GATGATAATGTTACATGAAAAGATACCATCAAACCTGCTTT ATGATCTTTGTGTCATGCTCAAGAAACAAAATAACTGGATA AATATAAAAACTGAGACCCATCATCATTCGATGATGCATGC CATGTTAACAGTCGGTAGATTTGATGGCTTATTCATTAGCT GGTGACATATATTTGCCCTGTTGATGTTATGTTCACTTGTTA TGTGATGAACTGTAGTGGTGATGAGGATCAGGCTCAAGA GAGAGTCAACAGGTTAGCAAAAATACTCAAAGATAAAGAA GTAAGCTCGAGTCTTAAAAACGCAGGGTATGGAGTGATCA GTTGTATAATACAAAGAGATGAAGGGAGAGGCCCATGA GACACTCATTTCACTGGTCAGAAGAGAATCATTATTATATT GAAGAGCCATTATTGCGTCACTTGGAGCCTCCATTATCGAC ATATCTTGAACCTGGTTTGTGCTCAAAGACCCTTCATAATTT TTCAATTCATTAATAATATTATAATACCAATGAAGTTGTAAA TGTATTGCTTATGCAGGACAACTTAAGGGCTATGATAATA TAAAGTACACTCCGTCGCGTGACCGTCAATGGCACATGTAT ACTGTTGATGCTAAACCACTTCCGGTACAAAGAATGTTTCT
--	--	--	--	---

				TAGAACTCTTATAAGGCATCCAACAAAGGAATGGTTCTCGC CCTCAGGTTACCAAGGTTTACAGAGATGAGGGCCCCACGGTC TCAGTTAAATCTCCCTTTTACATCAAGGAGCATCTTGAGAT CATTAGTGACGGCTATGGAGGAGTTGGAACCTTCATGTTCA TAATGCTACTGTCAAGTCTGACCATGCTCATATGTACCTAT ATGTATTGAAGGAGCAACAAATTGGTGATCTTGTTCCATAC ACAACGTAAGTATTCATGTCATCTTCATGAATTTTTTTTTAT CATATGCACTCATTTAACAATGGTAATATGTTGTGAACAGG AGAGTGGATGTAGATTCTGGGACAGAAGATTGCGTGGTT GAGACACTTTTGGTAAGGCTGGCTCGTGAAATCCATTCAAT GGTTGGTGTAAAGATGCACCGGTTGGGAGTTTTTGAGTGG GAGGTGAAGCTTTGCATGGCATCATCGGGTCAAGCCAACG GTGCGTGGAGGGTTGTGGTCACAAATGTGACTGGTCATAC CTGCGTTGTGCATGTAAGTCATTAGATAGGATTATAGACAT TTCAGCAATACCCCTCAAACATGCTTTTACCTAAAGTCAATT GCTGCAATTTTGATTTAGGTATATCGTGAACTGGAAGATAC TGGTTTGCACAAGGTGTATCATGCTACCTCTACATTGGGTC CTTTGCATGGCGTACCTGTGAATACACCCTTTCAGCCTTTA GGATTACTTGATCAGAAGCGTCTTTTGGCAAGGAAAAGCA ATACTACGTAAGTCTACGACTTTGCACTGGTATAACTATCA TTTTGCTCTTTCAATGCTTGATGGTCACCTAAATTTGATTGT ACAGAAACACTTATTACCATATCTATATTTCCAGGCATTTGA AGCAGCTCTTGAGAATATCTGGGCGTCGAAAGTCGTAAGT GATAGCAGGCCTAAGGGTAACTTGTGAATGTGACGGAG CTCATGTTTGCTGAGCCAAGTGGCTCATGGGGAACCTCCCT TGTTGCAGTAAATCGTGAGCCAGGGCAAACAAGGTGGG CATGGTGGCGTGGACTATGGACCTCTGCACTCCTGAGTTTC CTGATGGAAGAACGATTTTGGTAGTAGCAAACGATGTTAC GTTCAAAAATGGATCTTTTGGTCCTCTTGAGGATGCCTTTTT TGAGGCAGTTACTGATCTCGCTTGTGCCAAGAACTGCCA CTAATATACTTGGCAGCAAACCTCGGGGGCCCGTATCGGAG CGGCTGAGGAAGTCAGATCTTGCTTTAGAATTGGGTGGTC TGATGAGTCGACTCCTGAATCGGGATTCCAGTATTTGTATC TACTCCTGAAGATTATACCCACATCAAATCATCTGTAATA GCTCATGAGGTTTATCTATCAAATGGCGAAACAAGATATG TCATCGATACTATTGTGGGAAAAGAAGACGGACTCGGGGT TGAAAATTTGAGTGGTAGCGGGGCAATTGCTGGTGCCTAT TCGAAAGCATATAAGGAAACGTTTACATTAACATATGTTAC TGGAAGAACAGTTGGGATAGGCGCATATCTGGCACGTCTT GGGATGCGGTGCATACAGCGGCTTGATCAACCGATTATAT TAACGGGTTTTTCTGCACTGAACAAGCTTTTGGGCCGAGA GGTTTATAGCTCACAGATGCAACTAGGTGGGCCTAAAATT ATGGCTACGAATGGTGTGTCCATTTAACGGTGTCCGATG ATCTCGAAGGTGTCTCAGCTATCTTGAATTGGTTGAGCTTT GTTCCACCTTATGTCGGTGGCCCACTTCCTGTTTTAGCACCT GTGGATCCACCAGAAAGGCCCGTTGAGTACCTCCCTGAAA ACTCATGTGATCCTCGGGCAGCTATTTGTGGGGTCGTGGA TAGCAACGGTGAATGGGCTGGTGGGATTTTCGATAGAGAC
--	--	--	--	--

				AGTTTTGTGGAGACATTGGAAGGTTGGGCGAGGACAGTC GTAACGGGTCGTGCCAACTTGGCGGGATCCCAGTCGGG ATCGTTGCTGTTGAGACACAAACAGTGATGCAAGAAATAC CTGCAGATCCCGGGCAGCTTGATTCACACGAACGTGTTGTT CCTCAAGCAGGTCAGGTCTGGTTCCTGGATTCCGCCAGCA AAACAGCTCAGGCATTGATGGATTTCAACCGAGAAGAGCT CCCACTTTTCATCATGGCTAACTGGCGAGGCTTTTCTGCAG GTCAGCGGGATCTTTTTGAAGGGATTTTACAAGCAGGGTC AACCAATTGTTGAGAATCTCAGAACATATAACCAGCCTGTTT TTGTATACATCCCGAAAACCTGGAGAACTTCGTGGTGGTGC ATGGGTGGTTGTCGACAGTCGAATCAATTCAGATCATATA GAAATGTATGCAGAAACCACAGCAAAAGGAAATGTCCTTG AACCTGAAGGTATGATTGAGATTAAGTTCCGAAACAAAGA ATTGATAGACTGTATGGGTCGTCTAGATCCACAGATTCTGA AGCCTTAAAGAAAGACTTCGAGAAACAAAGTACGATCAAA CGATCGTCCAACAGATAAAATCTCGTGAAAAACAGCTTTTA CCGATTTACACTCAAATTGCTACCAAATTCGCTGAACTTCAT GACACATCATTGCGAATGGCTGAAAAAGGTGTGGTCAAAC AAGTTGTTGACTGGAAAGTATCTCGGTTTTTCTTTTACAAA AGGCTTCGTCGTAGGCTCGCAGAGGCTTCCTTGATCAGTA GTGCTCGTGAAGCTGCTGGTGATACTCTTTCCTACAAGTCT GCTCATGAGTTGATTAAGAAATGGTTTTTGGAAATCGAAAA CTGAAGATTTATGGCTTAGTGATGATGCTTTTTTCACTTGG AAAGACAATCTGATGAACTATAATGACAAGTTAGCCAAGC TACGTACTCAGAAGCTCTTGGATCAGTTATTAAGATTGGT AATTCACCATTGGATCTACAAGCTTTACCACAAGGCCTCGC CGCACTTTTGCAAGAGGTGAACAACTCTCTTTATTTTCCC TTAGAACTATTTAATTTAATTATCTATGAATGCGCAAAAAC AACAGTTTTATTTAAATATTTTTCTTTCATGCTGCAGGT GGATCCAGTGACCAAAAATAAACTAGTCGAAGAACTCTTG CGCGTAATTAAGTAGGTAATTATACACAAAGCTCATCAGAT TCTTCTTTGTTTGTCAAAGTGAGAAGCCTTTTGAGCAGTG TACATTATAAGTAGGTGTCATAAGAAAACAGGCTCAAAAT AGTTTAAAGTATATGAGGTTTACCATGTTTCAAGATTGTTTA TTTTCTTCATAAATTGTATAATACCATCACATTTCTATCGC ATTTTTTATATATCTATATATAAATGGTCATTTTTTATTTTAT TTATTTTTATAAAAGGTTCTCTTTGACCATCTTTGTGTTTCC TTTTGGCTCTTCTGTCCATCTTCAGTTCTTCTCCTTCCTTCG CTTCTTTTCGTCTCTTGAGTTATCTTTCTTTATCTTCTCATC GTGTACGGATTACGTTGATATGAGCACATATGGCAAAGTT GATTCAGATAACTCCACAACAAATTTTCACTTGATTTTTGAA TGTTTATAAGCTTACAATACATCCATGCACTCATGTTTCATCT GCTAAATGTACTAGTACATAATCAAGTTAAAACTTCAACC CAAGAACACTATTCCACTAAAAATTTTCGGCATGATCTCATC ATAAAATCTACAATCATTGTTTATTGTCAACCATCAAAGAC CTGTAGAATACTAATGAACAATTGCAACAAGTGAACAGTTT GCCCCTTGTTACTGTTGAATGAATATTTCAAAGATCATGAT CGAGCCTCGATCTTGACCAGCACTGAAACATTATAAAAACA
--	--	--	--	---

				ACTTCCATTTTAAATGTTTGTCTAATATAGGGAAGTGAGAG TCAGGTAGCCCACAATGTTTGTAGACCCAGAGCTACTTGTT CTGGCTGTGGGGTTAAATATAGTTATATAGACTTATGTAA GTGCAGGCATTACACACTTTTTTGCATTATATGTTTACGCG CAGATATATGTATTTGTGACCAGTTAAACCGGTGTGCTTCT CTTTTCTGTGTAATGAGCTCTGTTATGCAGTTTCGGGTTTG AGTCGCTTTGTGATAATTTTGTATGTGTTACTGGCCCGGCC AGATAAATGATCGGTTGATATAGGCTGGTTCTAGTCACACT AGACGCTGATTAGTGGTTAGGCTTCGATGTATAAATCAAA GTTATAGCTACATTCAAATCATTATTATAATTATTTCTATTTT ATTCAAAGTAGGAAGATTATATCATACATAAATATGACACA GAGGATGAATTTCATAACTTCAATTCTACTTTTCATTAAAA GCTTAATTTATCTAGTTGCCCGGTTTCCCATTCTTCTTCCCG TTGCCGCCACCAGGCCTTTTACTCCACCATGGCCACCCCT CCTTCCCCAACCACCAAATGGATATCCACCCAGATACCTG GCCATCCACCACCTGGCCAAAATCCGCCACCAGGAAAATA TCCACCACCTGGCCAATAACCCCCATAATACGGATATGATG GGTCATAGCCCCCTCCATATCCTTTACCTCTTCTGCTCCAC CGTACCCTCCATATCCATCACCCGAATCATAACCTCCCCCTC CACCATATCTGCCACCATGATCTTTTCCACGTCCTTCATCAT AACCACCATCTTCTCCACCATGATCTTTTCCACGTCCTTCAT CGTCGTCCCCTTTGCCTTCATGATCACCATCTTACCACCAT GATCTTCTCCAGGTTTCATCATCATCATGGTCATCGCCTTTTC CCCCTTCATCACCATGATCTTCTGCTGGTCCATCTTGTCCAC CACCTTCATGATCACCACCTTCATCACCATGATCTTGTCCAG GTCCATCATCATCATGGTCACCACCTTTTCCCCCTTCGCCAC CATGATCTCTTCTGCTCCATCTTGTCCGCCACCTTCATGAT CACCGCCTTCACCA
51	<i>Conyza canadensis</i>	gDNA Contig	16098	AGTAGAGTCTAGATTAAAATTTTCATATACGATTGATATTAT AAAGTGAATAATAGTAGCCTTGACGAGTCAAAGAGATATC ACAGAGAGATATTAGAATCCGGACATTACTAACGGCATAG GATTAACGGAATTTGTGGTTTTAAACAGTAATTATCTAAG AAATATGAAACAAGAAGTTATATATTCGAATAAACTTGGAT ACAATAATTTGATTACATGTTAGTTCAACCATAATCAAATA CTCGAAAGTCGTAATACACTACCAATATCTTGATTCATATC ATTTGCATTGACTAAATCACTAAAATCATCATTAAATTACAA CAAAAATATTATGTATTGGACTATTGGGGGTGGGGTGGGG TAGGGTAGGGTAGGGGGTTTGGTTACCCATCTCACGTGGC ATGCATCACCTCTCATATTATATGCAGGCATACTAAACAAA CCAAATACCCAACAAAAAACACCCATATTTAGCAATTCCA ACTTTCTTGCAACAACGTTATTATTATTTTATCTTGTAAT CTTGATTGATTCAACTGCTTTTCCACTTGTTTCATGGTTAGTC TTTCTCATTCTTTATATTTTGAAAAAAGATGATTTTATAGTG ATTAAAGATTGAATCTTTTTCTAAGTTTATGTCATTTCTTG AAATTTTGTGCTTCTAGAATTGGGTTTACTGTGTTATATGA ATTTAATAAGTAAAAAAGATGATTTTAGTGATTAAAGACTG AATCTTTTTCTAAGTTTATGTCATTTCTTGAAATTCTTGTGC TTCTTGAAGTGGGTTTACTGTGTTATATGAATTAACAAGT

				AAAAAAGATGATTTTAGTGATTAAAGATTGAATTATTTTAC TGGGTGTAATGTCATTTCTTAAAATTCTTGTGTTTCTTGAAT TATTATGAATTTAAGTAGTAAGTATACAAAAGATGATTTAC TGGGGTAAAGGTTGAATCATTTTACTGGGTGTTATGTCATT TTGTGAAATACTTGTGATTTTTGAATTGGGTTTACTGGGTT TTATGAATTCAAGTAGTAGTGCAAAAAAATGATGAAGAGG GTGTTGGAAAGATTAACTCATTACTGAATTTAGGAAAGCC AAATAATGAGAGATTAGTGTTTGGCAGAACAAATGAATTT TCTGGGTCTTGAACATAGTTTGAAAAAGCATGCTGGGACA TGTTTTTCCAAAAATGCTATTTTGTAAACAAAATTTCAAAC CCTCCTTTGCAGTTAAAGATTGAATCTTTCTTACCGGGTATA TGTCGTTTCTTGAAATTCGTGTCTTTCTTGAATTGGGTTTAC TGTTTAACGATTAAACTTTGAGACTTTTTACTATGTTTATGT TAATTTCTTTCTCTCAATGTTGTGATTTGACTTTGGAATGCT GTCTAATTAAGTATAGTTTTGTTGATTTTGACATTTTTTTG GCATATGGGTATGCATCTTAGGAGGATCTTTTATGTGTTTT GTTGGGTTACATTTGTTTGATAAGATTTTGGATTAATCAAG TGGACATGATGAACTTTATGTGATGAAATAATATAAAAAT CCCAATATAGAATTAAACACAGAATTAAAAAGTAGATATG ATGCGCACATTCCGCCTTTTTGATCCCACAAGTAACTTTTAG ATTGGATCACTGACTATAAAATATTCCACATCATTCTATAAA AAATCAGAATTCTGGATTATAAAATACACATTGGTATCCAT TTTTGAAGCACCAAAGTTTGATCCCTTTGTGATACTTCATA TTCAGTTTCACGTGGTTATTAATTTATTATCTGAAATTGTAA TTTCATTTGAATTCGCCTGTTTGATTACAAAATTTGAGTT GCAAGTTCTGTTTTTATCCCCCTTAAGTTTGCTTCAAGAAAA TAGTTAAGATTATTAAAGAAGAAAAAACCCAGTTGTTTGAC CATTTAGGAATTTAAGTAATGCTGAACTAACTTTGATTGG TCTACTTGGCAGTGGAACCATGCCAGAAGCTCAAAGAATG CCTCTAAATGGAAGCCTTAATCTTGGTAATGGTTATGTAAA TGGGGCCATTTCAATTGAGGTCTTCTGCTAGCAGATCTGCCA TTGATGAATTTTGTAAATGCACTTGGGGGGAATAGGCCAAT CCATAGTATTTTAATTGCAAACAATGGAATGGCTGCTGTAA AGTTTATAAGAAGTGTGAGGACATGGAGTTATGAAACGTT TGGTTCAGAAAAAGCAATTTTGTGTTGGTAGCCATGGCTACA CCTGAGGATATGAGGATTAATGCCGAGCATATTAGAATTG CTGATCAGTTTGTGGAAGTCCCAGGTGGTACAAATAATAAT AATTATGCTAATGTGCAGCTCATCGTGGAGGTAAAGTATGG ATCCGACACTCGTTTATTTACATAACCACTAAGTGAAGTACTT TATGAGCCGGGTCATATTTGGCTTTTTATCGCACATCAGCT GTAGCTGTTTTGTATATGCCGAAAGACCAGTATATTGGGT GATCACTATCAATTTTCTTTAGAAGTTTGAGTTTGTGTCTGA TTATTTCAGACTGCTGAGATAACACATGTTGATGCTGTTTG GCCTGGTTGGGGTCATGCCTCTGAAATTCCTGAATTACCTG ATGCATTGGACGCAAAGGGAATTGTATTTCTTGGGCCGCC GGCTTCATCCATGGCGGCTTTAGGAGACAAAATCGGCTCT TCTTTAATTGCACAAGCTGCTGACGTGCCAACACTTCCTTG GAGTGGTTCTCATGTAAAATTTTCCACCATTGTTTTATTACT
--	--	--	--	---

				TTTACCATTACAGTGAGCTTGACACCTCTTATTTTTCAAAT TGGAGATTAATGCCCCTCAGCTATAAGAATTTGGATATTTA TACCTTCTGATTTCCAACCAACATATCTATGTGTTTTGAAA ATCATACGTGTATCTATACCTCTTACTCTTAAATAATCTAAT CCTTTTTTTTTCTTTGTTCAAATCACACAAATATGTTGCTCA TTTGTCAAATTTATATCTTTCAGGTGAAAATTTCTGCAGAG AGCTGCTTAGACACAATTCCAGATGACGTATATAGAAAAG CTTGTGTCCATACAACCGAGGAAGCAGTTGCTTCTTGTCAA GTTATTGGTTATCCTGCTATGATCAAGGCATCATGGGGCG GTGGTGGCAAAGGCATAAGAAAGGTGTGCTTCCTTACATT TGAGAATAATTTTTATGTGAAGTTGTCAAAGGTGTAGAAT GAAGTGATAACACATTAATCTGTAGGTGCATAGTGATGAA GAAGTCAAGACACTTTTTAAGCAAGTTCAGGGTGAAGTCC CTGGTTCCCCCATATTTATTATGAAAGTTGCTTCCCAGGTG AGAAAACATTCTAATATCTTCTAACCGTAATATGCATTTAT CATTTTTCTTCTAAAAGCATTTTTGTCAATTTATCATTTGT TGTCGGAAAATAGAGCCGACATCTAGAAGTACAACCTCTC TGTGATCAGCATGGCAATGTAGCGGCTTTACATAGTCGGG ATTGCAGTGTTCAAAGGCGGCATCAAAGGTTCACCCAAT TCAATTGTTAATTCATTTTTCTTTTTATCTTGTTTTAATC TTTTTTTTTGGATAATTTCAAGATTATCGAGGAGGGGCCA ATAACCATAGCCCCCCTGACACAATAAAAAAATTGGAGC AAGCGGCAAGAAGATTAGCCAAATCGGTCAATTATGTTGG AGCTGCAACTGTAGAGTATTTGTACAGTATGGAAACCGGA GATTATTACTTTTTGGAGCTCAATCCCCGTTTACAGGTGCA AGTGTTTTTTTTGGTGCTGTATATTGGAGGACACTAGATGT GATTCATTCTCAGTCATATCTGACACCTTTTTATTAGGTTGA GCATCCTGTCACTGAGTGGATAGCGGAAGTTAATCTACCT GCAGCACAAGTTGCGGTTGGAATGGGCATTCCACTTTGGC AAATTCCCGGTAATATGTCAGAATAAGCCATAAATGTAATG AACGGTTGACAATTGTTGGCCATCATACTTGTCTACCTAGC ACTTGTCATTGAAATTTATAAAAAAGACCTGTCTATTTAGG AGTATCTTTGAACCTTTTTTTCTTTGCTTTAGAAATAAGAC GGTTTTATGGAAAGGAAAACGGTGGAGGGTATGATGCTT GGAGGAGAACATCGGTTCTTGCAACCCCATTTGATTTTGAT CGCGCCGAGTCAGTTAGGCCGAAGGGTCATTGTGTTGCTG TACGTGTAACAAGTGAAGATCCGGATGATGGTTTTAAGCC CACCAGTGGAAAAGTTCAGGTTTTTGAAAAGACTTATGCA CCCTTACGAAAATACCAAATATTATAAGTATTGATTATATA GCATACTGATTGACAACCTTTTTAGGAGCTAAGTTTTAAAAG CAAGCCAAACGTATGGGCATACTTTTCTGTCAAGGTACTCT TGTCTCCCATTTATAGACATTTATGTAAGTCTTGATTGCCA AACTACATTTTTTTACTTGCTAACACCTTGGACTCTTGCAGT CTGGAGGAGGCATTCATGAATTCTCAGATTCTCAATTCGGT AAAGGCCGAATCTTGTTTGGGTTCTGTTTAAATGTTTGAAT CTCCAATTGTTAGCGTAGTTAAATTTTATGAGAATCACTGC CAAGATGTTTTTTCTCATTTTAGTTTTTACATACCTCAGGT CATGTTTTTGCAATTTGGAGAGTCAAGAACATTGGCTATTGC
--	--	--	--	--

				AAATATGGTTCTTGGGCTAAAGGAAATTCAAATTCGTGGC GAAATGCGCACTAATGTTGATTATACAATTGATTTATTACA TGTGAGCAACTTGGCCTTCAAAGTTAAATTCGTTTTGATAA TATTCATTTACTTCAAATAAATTACATTTTTTCTTTGTAATCT TCAAAATATATAAATTTATAAAGTACACACATCACATTGGG CGAAGAAAAGTACACTCCATAAAGTTTAGAATTTTTTTAAA AAAATTTTCATTCTTTTTTCTTATTCTTACACTTATTAGTGTG AACTTTCACATTCTTGATTTTTCTTTCTTATTTCTGCACATGT AGGCTCCAGATTATAGAGAAAACAAAATACACACGGGTTG GTTAGATAGCCGAATTGCGATGCGGGTTAGAGCAGAAAG GCCTCCTTGGTATCTTTCGGTAGTGGGGGGAGCTCTTTACG TAAGTCATTTCATATCACAATGTGGTTTCTCTATTACTTATC ATCTTTTGAAGCACTTCCACTTACCATCGGCTTTTGTGACCC TCAGAAAGCCGCTGCTAGAAGTGCAGCCATGGCCTCTGAC TATGTTGGTTATCTTGAAAAGGGGCAAATCCCTCCAAAGG TATCATGCATTCCGAAATTTAGAACTTGGGTTTTGTTTTAT AAAAATTGGTTAAAAGTCGTTATGTTTGTTTTACTTATTAAT GTTTCATTACTTGCAGCATTTATCACTAGTCAACTCTCAAGT TACTTTGAATATTGAGGGGAGCAGATACACAGTGAGTAAC AAGATACACAAGCTACTAGGATTTTTTTTGTGTGTATATTA ATTCATCTTTTCTGATTCTCGTATTTGTTGTTAGATTGATAT GGTAAAAAGAGGACCTGGAGGTTATAGATTGAAAATGAA CCAATCTGAGATTGAAGCAGAAATACATACTCTACGTGAC GGGGGTTTATTGATGCAGGTATGTAATTCATAATGATTCAT TTTCGTTTTCTGGGTTTATTTAGAACTGTACAATGTGTATCA TATAAAATGCATCTTAACATTGGGGTGCATCTGTGAATCAA AATGATAATCACTATAATGTTACATAAATTGTTACTATTTAA GAAAAATGGGTATAACTGAATATACCAGAAATTATGTTTTA CCGATTGATAATCAGTTTTCTTGCAGTTAGTTACAACTGA TAGTCGTAGCTGAAATGGGTCACCCAAACACTTGAAAGTG ATTACTGCGACTTGAAGTTGCATTAATTGGATAATCACTTT CAAAGCGAATTGTTATATACACCAATAACACAATGATATCT AACTGGTTGATTTAATGTGGTAGTTGGATGGGAATAGTCA TATTATATATGCTGAAGAAGAAGCCGCTGGTACTCGTCTCC TCATTGATGGACGGACATGTTTGCTTCAGGTGCCAACAACT TTTTTGTAACTTTTGCTGTAGTGGTGGCAACATTTACTCA TCTATTTTTAAATTAGTCAGTTTGAGTCATATTTAAGATCTA AAGTGTCAAACGGGTAAATAGAAAAAACTGAAGGAAACT GGTCAAATAGGCGGTAAAGTGGCCTGTGTGTATTCAACACA CATAACCTTCCAAATTATTTTTTGTGGAATATATCATTCT TATATCATATTCGGAGGACTAGTTTACATAAATAATTTTACT TTTTATACAAAAGTGTTTGTGTTCAATCCAAAATCAACCC AACCTGTACTGTACAAAATTACCTGTTTTGACCTGAACCAG ATCTGTTACCCAGCCTGATGGGATATCTCAATTTGTCACCTT TACCATATCCTTGCTTGTGTGGATTTTAAGTTTGCATTACTT CTTTTAGAATGATCATGATCCTTCCAAGCTGGTGGCCGAA ACACCATGCAAACCTTCTAAGATACTTAGTCTCAGATAGTAG CCATGTCGATGCTGACACACCTTATGCTGAGGTGGAGGTA
--	--	--	--	--

				ATGAAGATGTGTATGCCGCTACTTTCGCCGGCTTCTGGAGT TATACAGTTTAAGATGTCTGAAGGTCAAGCAATGCATGTTA GCCCTTTTTCTCTATTTTTTATTCCATTTTCGTCTTCTCAAAT CATACACCGTGGACCCACGAAACAAAGAAAGTTTATTTATT TGAGCTGTTATGAATGACTTCATTTGTAGGCTGGTGAGCTA ATAGCAAGGCTTGATCTTGATGACCCATCAGCAGTAAGAA AAGCAGAGCCTTTCCATGGAACTTTTCTCTTCTTGGGTCTT CAACTGCCATGTCAGATAAAGTTCATCAAAAGTGTGCTACA ACTCTAAGTGCCGCTCGAATGATTCTTGCAAGGCTATGATCA CGATATTGATGAAGTAATCTTTTCGCCGTATAAGGATTTTA CAGTTTCAAAAAGAAGTTGTTCTTCTGTTAACAAGTTTAAC CTTTTATTGTAGGTTGTCAAAAACCTTCTTCGTTGTCTAGAT AATCCCAAGCTACCTTTCCTCCAGTGGCAAGAATGCTTTGC AGTTCTAGCCAATCGACTTCCTAAAGATTTAAAAACAAGG CAAATTTACATCTTATAATTCTTATCTATTTTTCTTTCTTTCA AATTGGAACATTGAAATGTATTTTTCTAATTCTGTTATTTGT ATATTCAGTTGGAAACAAAATTTAAGGAGTACGAAGGAAT TTCCACCCAACAAGCTATTGATTTCCCCGCCAAATTATTATG GGGAATTCTTGAAGTTAGTTTGCGATTAATAATTTTTTTAT TATACACATACACTTTTTCATATTTAAAGATGTAATATGGTA ATGCTATCTGCACAGACACATCTTGAATTGTGCTCGGAAAA GGAAAGGGGAGCCCAAGAAAGGCTTGCTGAGCCATTAAT GAGTCTTGTCAAGTCCTATGAAGGTGGCAGAGAGAGTCAT GCACGTGGGATCGTTCATGCTCTTTTTGAAGCATATTTATC TGTTGAAGAGCTATTTAGCGACAACATTCAGGTGCGTTTTT TTCTGCTGTGTTGATCCATGTTTTTTTTTTGGGATTTCTGAT CGGGCATGTACTACCATAACAGTTCTTTCTATTTTATCTTTT TACACTACACAGCCCAATTTTTTTCAAGGTTAACACATTCCC ACCTTAGCTTTAAAAACCTATTTACCTATGACCGGGTCGGC AAAAGTTATCCCTTTATTTCAAACCTTTGAACTGGTAAAAA GTCAACCAAAGTGTAGTTATTAATTCATTAAACCCTTTGAA TTACTTTTCCAAAACCTTGATTATTATAAAATAAAGTTTCTG GGCAATAGTGTTTCCGGTCAACCAACCTGTTCAAAAAATGA CATGATTTGACTTGTTTCTGGACATGATATAATGTTTCAGG CTGATGTAATTGAACGTCTTAGACAACAATACAAGAAGGA TCTGTCGAGGGTTGTTGACATCGTGATTTACATCAGGTAT GTTAATTCCACTGTTTTGTATCTTCCATTCTAATTGTTTAAGT TAACAACCTATTTTATGTCGACACAGGGTGTTAAGACTAAA AACAACTGATACTACGACTGATGGAGCATTGTTTACCC TAATCCAGCCGCCTATAGGGAAAATCTGATACGGTTTTCTC AATTGAACCACACTAGTTATTCTGAGGTCAATATTGTCATT TGACATACTCATACCAGTTTGAATATTTTTCCGAATCTTTTT TATGCTAATACTAGTTTGTGTTTCTCATTTCTTGTTAATAGT TAGCATTGAAGGCAAGTCAGCTGCTAGAACAGACTAACT GAGTGAACCTTCGTTCAAGCATAGCTAGAAGTCTTTCTGAGT TAGAGATGTTTACCGAAGAAGGTGAGAATATAGATACCCC TAAGAGGAAGAGTGCCATTGATGAAAGAATGGAGGATAT TGTGAGTGCTCCTTTGGCGGTCAAGATGCCCTTGTTGGTC
--	--	--	--	---

				TTTTGATCACAGTGATCACACCCTTCAAAGGCGTGTTGTT GAGACCTATGTTCTGAAGGCTATATCAGGTATTTTTGCTTCT CTCATATAAAATAATTAATTTGTATCACATAACTGGAGTCT GCATTATAACTGAAGCAAATTTCTTGGAATGTTATAAAGAT GAAATCATAGTTATAGTTTCAATTAAAGGCATTATTGGTAA CACTTACATTGTATGCATCATTTTGGTAGTGTGAGCAGAGT AGTGATTTTCATGGCAATTAATAAATGCTTTGTTTC ATCTCTTACTGAATTACACTGTTGTTCAAAAACACTACTTAAA TTGATTTTCATCTGAACTTTTGTGCCAAATACCTTGGTTTT TCTATCCAGATTTACTTTTGTCTTTTTTACCCAACAAGGCCA GAGCAATGATCTTGATTTAGGTACACAAGATTCTTGTGTTA AAGGAGTCCTACATTTGATTAATGATCAACATATTTTTCAA ATACCACAATTTATATTGTAATACAGGGTGTGTATTTTGAC TTCAGACCTTTTTTCAGCTATTTTTGTAGTAGGCAGAAAGTT GTAACTGAATTAATATAAAAAATATATATAAAAAAGTGAAG AAATGTGTTTGAGTATTGTAATGTATACTCTATGTTTAGCT GGCTGGAAATGTTCCACTATCTTGTATATGTCTACTACACT CTTCATGAATTGCTAAAGAAAAGAATTTTGTGATGTAAATA TATATTCAGTTATTTACACTTCTTACGGGCCAAAGTCACGT GAGGTTTACTGACCACTCACTTCATATCTGTTATCAGCCAT ATCTCGTGAAGAGGAGTGTTAAGATGCAGTGGCACAGATC CGGACTTATTGCTTCATGGCAATTCATGGAAGGACACGCT GAAGCTGTTAATGTGTCTGATTATGAACTATTGATACACA ATTGGTAGATAAGAAATGGGGAGCTATGGTTATTATTAGA TCTCTTCAATTTTTACCTGATGTCATAAGTGCAGCTCTTAAA GAACTACTTATAAACATCATGGCACAAGTCAAAATGGGG ATGCCAATCCAAGTTATCAAGGTTATATGATGCATATTGCA TTGGTAGGCATCAACAACCAAATGAGTTTGCTTCAAGACA GGTATACAATGTTTCATGTTGATCTTATGTATCGAATTTGTA AAATACCATTTGCTACAAAAAGTTGAAATAAAGCAACTTAT TGTACCCAAGTTGTTTATGTGTACTGATGCTAGAGTGTCAA AACAGACAGGTTGGATAGCATGCCTAACTGATTTGGGTC AAAACGGGCCAGATTAAATCTGCTCCCATTTGTATTAAAAT CTTTCTATTTTACAAGTACTTAATGTAATATTGGATGCTTAC AACGACTATATTATATCCTTTATTAACCTTTTAGCTTAGTACA AACATACATATAATATTCCTGTATTAACCTTTAGCTAAGTA CTTAATGTATTTTGGATGCTTACAACAACATCATATTACCT GTTTGACCTGTTATCAACTAAGTACAAACATACATATAAAT GGCTGTGATAACTAGGTGACCAACCTTAAATTACCAAAAA GGTACTTGTTGTATTTTTCATCAAATAACCATCTCATGACA TTATGTCATTATGATATGCCATGGTATAGGGATAAAAATG GAAAAATGGGCCTAGTATCAGGCCATGATATTTGCCATGT TTACCAAAGGATAAGTTTGATGGATATAATTTTTTTTTCCCC GATGATCTGAAATTAATGGACATGTTATCTTTTTAACTGCA GTGGTGATGAGGATCAGGCTCAAGAGAGAGTCAACAAGT TAGCAAAAATACTCAAAGATAAAGAAATAAGTGTGAACT AAAAAATGCAGGATATGAAGTTGTAAGTTGCATAATACAA AGAGACGAAGGTAGAGGCCCGGTGAGACACTCATTTCACT
--	--	--	--	---

				GGTCAGAAAAGAATCGTTATTATATCGAAGAGCCATCATT GCGTCATTTGGAGCCTCCATTATCGATTTATCTTGAAGTGG TTTGTACTCTTAACACGCCTGAATACGTTCTTGATAACGAA AGAACAATAATTCATAAATGTATTATTTGTTTAGGACAAGC TTAAGGGCTATGAGAATGTAAAGTACACTCCATCACGTGA CCGTCAATGGCACATGTATACTGTTGATGCTAAACCACTTC CGGTTCAAAGAATGTTTCTTAGAACGCTTGTAAGGCACCC GACAAAAGAATGGTTCTTGCCCTCAGGATACCAAGATTCTG GAAGTTGTGGACCCACGGTCTCAGTTAACTTTACCTTTTAC ATCAAGGAGCATCTTGAGATCTTTAGTGACCGCCATGGAG GAGTTGGAACCTTCATGTTTATAATGCTATAGTCAAGTCGGA CCATGCTCATATGTACCTCTATATATTGAAAGAACAACAAA TAAATGATCTTGTTCCATATACTAAGTAAGCATTGCCATCCT CTTTCTGAGACATTATATATGTATGGATAATATTATAATTTT ACAAGTTGTAAACAGGAGAGTGGATGTAGATTCTGGTAAA GAAGAAGGTGTGGTTGAGACGCTTTTGGTGAAGTTGGTCC GTGAACTTCATTCGATGGTTGGGGTAAAGATGCACCGGTT AGGTGTTTTTGAGTGGGAGGTGAAGCTTTGTATGGTATCA TCTGGTGAAGCCAACGGTGTGTTGGAGGGTGGTGGTCACAA ATGTGACTGGGCATACCTGCAATGTACATGTAAGTCATTAA ACGGACTTTTTAGACATTTGACCATACTCGATATCTTTACC TACAATGAATTTTTGAAATTTGTATATAGGTGTATCGGGAA GTAGAAGATACTGTAAACACAAGGCAGTGTATCATGCTC CCTCTACATTGGGACCTTTACATGGTGTGCTGGTGAACACA CCCTTTCAGCCTCTGGGATTACTCGATCAGAAGCGTCTTGT CGCCAGGAAAAGCAATACTACTTACTGCTACGACTTTGCAC TGGTAAAATCCCCGTTCTTCCCTTTTAAGTCAGATATGCATT TGCTATACTATTTTTTACAAAGTACTGGTTCTTATTGATCAT ACTTGTATGTGCAGGCATTTGAAGCAGCCCTTGAGAATATC TGGTCATCAAAACTGCCTGGTGTAAAGCAGGCCCAAGGGCA AACTTGTAATGCGATGGAGCTTGTGTTTGCTGACCGAAG AGGTTTATGGGGCACTCCACTTGTGCCAGTAACGCGCGAG CCTGGACAAAATAATGTGGGAATGGTAGCGTGGACTATGG ACCTCTGCACACCAGAATTTCTGATGGTAGGACGATTTTA GTTGTTTCAAATGACGTCACATTTAAAAACGGATCTTTTGG TCCTATCGAGGATGCGTTTTTTGAGGCAGTCACTGAGCTTG CTTGTCACAAAAAACTGCCGCTCATTTACCTGGCGGCAAAC TCAGGGGCCCCGTATCGGGGTGGCCGAAGAGGTCAGATCC AGCTTTAGAATTGGGTGGTCTGATGAGTCAACTCCCGACTC CGGCTTTCAGTATTTGTATCTAACTCCCGAAGATTACTCTCG TTTGAATCATCAGTAATAGCACATGAAATTCGTCTATCCA GTGGTGAAACAAGATGGGTCATTGATACTATTGTGCGGGAA AGAGGATGGATTAGGGGTTGAGAATTTGAGTGGTAGTGG GGCGATTGCTGGGGCTTTTTCGAAGGCATATAAAGAACT TTACTTTAACCTACGTGACTGGAAGAACTGTTGGGATAG GTGCATATCTGGCCCGTCTTGGGATGCGATGCATACAAAG GCTTGATCAACCGATTATTTTAACTGGGTTTTCTGCACTAA ACAAGCTTTTGGGCCGAGAGGTTTATAGTTCGCAGATGCA
--	--	--	--	---

				ACTTGGTGGACCTAAAATTATGGCCACGAATGGCGTTGTT CATCAAACGTGTATCTGATGATTTGGAAGGTGTCTCGGCTAT CTTGAACTGGTTGAGCTATGTTCCGCCTTACGTTGGCGGTC CACTTCCTGTTTTGCCACCCATGGATCCACCAGACAGGCCC GTCGAGTACCTGCCTGAAAACATCATGTGATCCTAGGGCAG CCATTTGTGGGACCGTGGATGGTAACGGGAAATGGGTTG GTGGGATTTTCGACAGAAACAGTTTTGTGGAGACGTTGGA AGGTTGGGCAAGGACAGTTGTAACAGGTCGGGCGAAACT CGGTGGAATCCCTGTGGGGGTTGTTGCTGTCGAGACACAA ACGATGATGCAAGTTATACCTGCGGATCCTGGGCAGCTCG ATTCACATGAACGTGTAGTTCCTCAAGCTGGGCAGGTCTG GTTCCCGGATTCTGCTAGTAAGACAGCTCAAGCGCTGATG GATTTTAATCGAGAAGAGCTCCCCCTTTTCATTATGGCAAA CTGGCGAGGGTTTTTCAGCCGGTCAACGTGACCTTTTTGAA GGGATTCTACAAGCGGGATCGACAATTGTAGAGAATCTTA GAACCTATAAACAGCCAGTTTTTGTCTACATTCCAAAAACA GGTGAGCTTCGAGGTGGTGCATGGGTGGTCGTTGACAGTC GAATCAATTCAGACCATATAGAAATGTATGCAGAAACAAC TCGGAAAGGAAATGTTCTTGAACCCGAAGGTATGATTGAA ATAAAGTTCCGAAATAAAGAGCTGGTAGACTGCATGGGTC GATTGGACCCACTAATTTGCAATCTAAAAGAAAAACTTAAA GAAACGAAGCTCGATCAAGCAATCACCCAGCAGATAAAAG CCCGTGAGAAACAGCTTTTACCAATTTACACTCAAATCGCT ACAAAGTTTGCTGAACTTCATGACACATCATTCCGAATGGC TGAAAAAGGTGTTGTCAAAAAGGTGTTGACTGGGCAATT TCCCGGTTTTTCTTCTACAAAAGACTCCAGCGTAGGCTGGC CGAGGCTTCTCTAATCAAGAGTGCTCGTGATGCTGCTGGT GACACGCTTTCACACAAATCTGCTCATGAAATGATCAAAAA ATGGTTTTTGGACACAAAAAGTGAAGATATGTGGGTGAAT GACGACGCCTTTTTCACATGGAAAGATGATCCATTGAACTA TACTAGCAAATTAGCCGATCTACGTACACAGAAGATATCAA ATCAGTTATTAAAGATTGGCAGTTCACCTTCCGATCTGCAA GCTTTACCACAGGGACTCGCTGCACTTTTGCAAGAGGTAA ACCATAATATCCCGATTACCTGCCGTTTTTAAATTCATAAAT TTCCTGTTTTGTTTAACTTTGTTGTGTTCTTCTATGATGTA GGTGAATCCTGCAGCCAAAAATAAATTGATTGAAGAACTC AGGCGGATAATTGAGTAGGAATCGATAGGTAACCTATTATC AAGGAGTTCTTCATTATAAATTTTGCCAGCAGTTTGAGATT TTTCCAGCCAAATGAGAAGCCTTTGAACCTGTGTACATTAA GGTGTTGATAGGGAGATAGAGTAAAGATAGTATAAATTGT AATTAGTGTTACAAGAACCTTTACATTAGAATCATTATATAT CATGGTCAATTCTTTTAAACAAACATAATTCAAATTCATATTC TGATATTCATATGTTGAAACAATTGCTTTTCTTTTTGATTTTT TTGTTCTCTTTCCCTTCGGTTTCTGTTTCTTTACTTTACTTTC TCGTTTGCGTTCTTCTTTTCTTTCTCTCAAGTTCTTCTCTTT CCTTTGCTTTTTTCTTCTTTCTTTTCGAGTTCTTCTTTTTCTT AACTTATCTTCTCGTGTTTTACCTTCTCTTCTCGTGTTTTA CCTTCTCTTTCATTTTCTTTTTCATTTTCTTCTTCTTTTCGT
--	--	--	--	---

				AGGAGTATCCGCTTGATGATGTTTCATACACATTCTTACTTT GGAATTATTGTCTGCAAATGTCAAATCAATAGAGAACTATG TAGATATGCTTTAAATGGCATATACTTCTTTTTGTTTTGTC AATTATTTATTTATAGGTGCATACATAGTGTTTATCAACATT GTAGGAAATGACAAAAGTTTGTTTTTCAAACGGGCAAACC AGATTCTCGTTGTAATCAACTGTAACAATGTAGGATTGTGT TTGTCCGTCGACCAAATGTTGCAAGTTCGATCAATATCTGT ACGAACGTTTCAATCAACACATCGAAGAATAATTGAATATA ATCCAAGTTAATGTTTGAAAAGCAACAAGATAACAATATA AGATTGGTGGTCCTGTTTCAGAAAATGGTATTTATGTTTAAC TGTGTATGAAGTAAAACAAACATATGATTGAGATTTTAATT CTCAACATCAATTTCAACACTAACATAAGTTCATTACTAAG ATATAGTTTTCCATTATTAGCTTAGACTTCTGTCATAAAAAA CGGACATCAAGTAAATGTAGAAAAATGTAGCGTCATATGT CTTACACGGATTCAAACCATTATACAACCTTACAACTGTT GACGGTTATATCATGTGCAATTGTCTAACAGAATCCAAAAG CGTAAAAAAAAGAGGGCAAATTGCAGTTTCCTACATTGTTT TCTTTATCTCCAAGCCCTAGTCATTTTCATGTATAAACAATCT AACAAACAAGCTTATTCTGTAAAAAATCCAACAATTCTGAT TTCATATATAGGTTGAGTACATATGGGGATTCTAACTAGTG AGTAGTGACTCTAACTTTAATTCTTCTTGCACTTCACATTT TACTGATGAGGTCAGACCTCATGAGCAGACTTTGATGAAC ATGTATGAACAGCATCTGCAACTGTGAGAAAAATCTTGTTT TCGCCAATCAAGTCAGGGAAATCCGCTGCATATAGCTTGTC TAGGACGAGTTGCCCCGGGGTTTGCAAGAACAAGCTGCCAT GTCAATTTAGTTTTTAGTCCTTGAGATGGCATTACAACACA TGCAATTTATTATTATACACACTTAGAACCATTGTGTTAATA AATTGGAGACTGTTTTACTAACCTGAACATCTCTTTTTGCA AACTTCTGTGTAACCTTTCAAAGGCATGGATTCCACTGGTG TCAATATCAGTAACAGCTGCAATTAGGCAACCATACGTTAG AGAGAAAAGTTTCAATGACCCAAAATGTAAAGGTAACCAT GGTAAAAGCTAGTTTCTTACGCGACATTTCAACTATTAAGA ATTGAATATTTGGTAGGTATGCTGCTTTTAGATTTTCTTCTT CCTCAGTTAGCCATCTCAATATCCTGCAAATAAAGTGCTCG ATTTATTACTTGAAAATGATCTGCTGGATAATCTATATAGTT CAAGATTCTTAAAATAATTCACAGTTTGCAGAAAAAAATGT ACCTTTCTTTGATGTAGTTGGAGTTGGAAA
52	Euphorbia heterophyll a	cDNA Contig	2292	CCGGAAGGAAAATCTTGATAGTAGCGAACGACGTGACCTT CAAAGCCGGGTCTTTCGGCCCCGAGAGAGGATGCATTCTTT TCCGCCATAACCGATCTTGATGCACCAAAAAGCTCCCTTT AGTCTACCTGGCAGCAAACCTCTGGTGCTCGTATAGGTGTT GCCGAGGAAGTCAAGTCTTGCTTTAAAGTCGGTTGGTCAG ATGAGTCATCTCCCGAGCGTGGTTTCCAGTACGTATATTTG ACTCCCGAGGATTATGTAACCATTGGATCATCGGTGATAG CACACGAGCTGAATCAGAATGGAGAAACACGGTGGGTCA TAGATGCCATTGTTGGGAAAGAGGATGGCTTAGGTGTCGA AAATTTATCGGGAAGTGGAGCCATTGCTAGTGCATACTCA AGGGCATATAAGGAAACCTTCACATTGACATACGTAACCTG

				GAAGAACAGTGGGAATCGGTGCTTACCTGGCACGCCTCGG GATGAGATGCATACAACGGCTCGATCAACCGATCATCTTG ACCGGGTTCTCCGCGTTAAACAACTCCTCGGCCGTGAAG TGTATAGCTCTCACATGCAACTCGGCGGTCCGAAAATTATG GCCACCAATGGGGTAGTCCATCGCACCGTCTCCGATGACC TCGAAGGTATTTTCGGAAATCCTGAAATGGCTAAGCTGTATT CCCCCTCAAAGCGGCGGGGCAATTCCGGTATTTCTTCTCC GGATCCTCCGGAGCGACCCGTGGAGTACTTCCCAGAAACA TCGTGCGACCCGCGGGCGGCCATCTCGGGTACAATGGACG GCAGCGGGAAGAAGTGGCTCGGGGGTATTTTCGACAAAG ACAGCTTCGTGGAGACACTGGAAGGGTGGGCGAGGACCG TGGTGACCGGGCGGGCAAAGCTCGGGGGGATTCCGGTTG GGATAATAGCCGTCGAGACTCAAACCGTGATGCAAGTGAT CCCCGCCGACCCGGGCCAGCTGGACTCGCACGAGCGGGTC GTGCCCCAGGCGGGTCAAGTATGGTTCCCAGATTTCGGCGA ATAAAACCGCCCAAGCGATTATGGATTTCAACCGAGAAGA GCTCCCGCTCTTTATCCTCGCCAACTGGCGAGGCTTCTCGG GCGGCCAACGAGACCTCTTCGAAGGTATCCTTCAGGCGGG GTCCACCATAGTGGAACCTTAAGGACATATAACCAACCG GTTTTCGTATACATCCCTATGATGGGCGAGCTTCGTGGTGG GGCCTGGGTTGTTGTGGACAGTCAGATAAATTCTGACCAC ATCGAGATGTACGCTGATCGGACGGCTAAAGGCAACGTCC TTGAACCGGAAGGAATAATCGAGATCAAGTTTAGAACAAA GGAGTTGCTCGATTGCATGAATCGACTCGACCCAAAGCTG ATATCTTTTAAAACCAAATAACCGAAGCGAAGAATAGTG GGACCTACGGGATGGTCGATTCCGTACAACAGCAGATAAA ATCCCGGGAAAAGCAACTTCTGCCGCTATACACACAAATC GCCACACGATTCGCCGAGCTTCACGACTCGGCTTTACGAAT GGCGGCAAAGGGGGTGATTTCGAGAAGTTGTCGACTGGGG GATTTACGATCTTACTTCTACAAAAGGTAAAGAAGGAGA ATCGCCGAGGCTTCGTTGGTGAACACCGTGAAAGATGCAG CGGGTGATAAGCTCCAGCATAAGTCGGCTATGGAGTTGGT CAAAAACCTGGTTTCTGGACTCGAAAGGCGATTGGGAAAAC GATGAAGCTTTCTATGCTTGAAGGATAATCCCGCGAATT ACGAGGAAAAGCTACAGGAGTTACGGGTCCAGAAGGTGT TGCTTCAGTTAACTAACATTGGCGAGTCTTTGTCGGATTTG AAAGCTTTACCTCAAGGTCTTGCTGCCCTTCTAAATAAGGT GGAGCCATCGAGCCGAGGGGCGTTGATCGATGAGCTTCG GAAGGTGCTTAATTGATTTTCGGTAAGTGTTTCTCGGCTAC TAAATATGTTTTACTTTGGCTTCAGTCTCTGGGTAGTTTGAA TCAATAGAAAATGCCAATGTGAAAATACCCAGTAATATATT TGATAAGTGTAATGTAATAATTATTATATTTAAGTGAATA GGGGGAATTAGTTCATATGATTATTGTTGTTATAAACAAAT CAGAGATAGAGAGAGCTATATTTATTATTATTTGCGAAT TAAAGTTATTAGGAGTAGTATAATTTGGCGGTTGTTGCATT TTACGTGTAATGATCTGAATGTTGTTTGTTCGTGATTATTG
53	Euphorbia heterophyll	cDNA Contig	1338	TTGACGGGAGGACTTGCTTGCTACAGAATGATCATGATCC GTCAAAGTTAGTGGCAGAGACGCCATGCAAACCTCTGAGA

	a			TATTTGGTTTCAGATGGTAGTCATATTGAAGCTGATGCTCC ATATGCAGAGGTTGAAGTTATGAAGATGTGCATGCCTCTT CTTTCACCTGCTTCTGGAGTTGTCCATTTTAAAATGTCTGAA GGTCAAGCAATGCAGGCTGGGGAGCTCATTGCAAGGCTT GATCTTGATGATCCTTCTGCTGTAAGAAGGCAGAACCTTTT CATGGGAGATTCCCGCTACTTGGCTCTCCTACTGCTATTTCT GGTAAAGTTCATCAGAGATGTGCTGCAAGTCTAAATGCAG CCCGTATGATTCTCGCTGGCTACGATCATAATATTGATGAA GTAGTGCAAACTTGCTCAATTGCCTTGATAGTCCTGAACT CCCTTTCCTTCAGTGGCAAGAGTGCTTGTCTGTTCTAGCAA CTCGCCTTCCCAAGGATCTTAGGAGCGAGTTGGAATCAAA ATACACAGAGTTTGAAGGAATTTTCGAGCTCCCAGAACATT GACTTCCCTGCCAACTGTAAAGGGGTGTCCTCGAGGCAC ACCTGAAATCCTGTCCTGAGAAAGAAAAAGGAGCGTTGGA AAGGCTTGTTGAACCTTTGATGAGTCTTGTAAGTCTTATG AGGGAGGACGTGAGAGTCATGCTCGAGTGATCGTCCAATC ACTTTTTGAAGAGTATTTATCTGTAGAAGAATTATTTAGTG ACAACATCCAGGCTGATGTGATTGAACGTCTCAGACTTCAA TATAAGAAAGACCTTTTGAAGATAGTGGACATTGTCCTTTC TCATCAGGGTGTTAAGAGTAAAAATAAGCTGATACTACGG CTCATGGAACAACCTTGTTTACCCCAACCCTGCTGCATATAG GGATAAACTCATTGCGTTCTCTCAGCTTAACCACACCAGCT ATTCCGAGTTGGCATTGAAGGCAAGTCAACTCCTAGAACA AACCAAACCTGAGTGAACCTCCGTTCCACTATTGCTAGAAGCC TTTCGGAATTGGAGATGTTTACCGAGGATGGTGAAAATAT GGATACTCCCAAAAGGAAAAGTGCCATTAATGAACGTATG GAGGATCTTGTGAGTGCTCCTTTGGCTGTTGAAGATGCTTT AGTGGGTCTTTTCGAGCACAGTGATCACACCCTTCAAAGG CGAGTGGTGGAACTTATGTTTCGTAGGCTATATCAGCCCT ATCTGGTCAAAGGTAGTGTCAGGATGCAGTGGCATAGATT TGGTCTTATTGCTACATGGGAATTCTTGGGAGAGCATATCG G
54	Euphorbia heterophyll a	cDNA Contig	1250	TAATATGATGCACATAGCATTGGTAGGCATCAATAATCAG ATGAGCTTACTACAGGATAGTGGTGATGAGGATCAGGCAC AAGAGAGAATTAACAAGTTAGCCAAGATTCTCAAAGAACA GGAACCTAGGTTCCAGTTTGAGCTTGTCAGGCGTTGGAGTT ATTAGCTGTATCATACAGAGGGATGAAGGGAGAGCCCCTA TGAGGCACTCCTTTCACTGGTCAGAGGAAAAGCTTTATATG AGGAAGAACCTCTATTGCGACATTTGGAACCTCCACTATCC ATCTACCTTGAACCTGGACAACTTAAAGGCTATGACAATAG ACAATATACTCAGTCAAGGGACAGACAATGGCACATGTAC ACTGTTGTAGACAAACCAAGTTCCAATCCAGAGGATGTTTCT AAGAACCCTTGTGAGACAGCCCACAAGTACTTCATATCAA GGTCTTGGCGCCGAAGCACCCAATGTGCAGTGGGCCATGT CCTTTACGTCAAAGAGCATTTTGAGGTCCTTAGTAGCTGCA ATGGAGGAACTGGAGCTTCACGTGCACACTGTCAAATCTG ACCATGCTCATATGTACCTCTGCATATTGAGGGAGCAACG GATAGAAGATCTTGTTCCATACACGAAGAAAACCGATGTA

				GATGCCAACCAAGAAGAAGCTGCGGTAGCAAGAATCTTG GAAGAACTAGCGAGGAAGATACATGCGTCGGTTGGAGTC AGAATGCATAGGTTAAATGTTTTCGAGTGGGAAGTGAAGC TATGGATGACATCATCTGGACAGGCAAATGGTGCTTGGAG AGTTGTCACAACAAATGTGACTGGGCATACCTGTGCTGTG CATATATATCGGGAACCTTGGGGACGACAGCAAACACGAAG TGGTTTACCATTTCGATCTCTCCAAGAGGCCCACTGCATAGC ATGCCAGTGAATGCTGTTTATCAGCCCTTGGGAGTTCTCGA TCGAAAACGTTTGTGGCAAGGAAGAGCAACACCACTTAC TGCTATGATTTTCCACTGGCGTTTGAGACAGCCATCGAACA ATTATGGGAATCTCAATCACCAGGGACTGAAAGAAGCAAA GAAAACGTCCTAAAAGTCTCGGAGCTTGTTTTTGCCGATCA GAAAGGTACCTGGGGAACCTCACTTGTTTCATGCAGAACGG CCAGCTGGGCTTAATGACGTGGGCATGGTAGCATGGTGCA TGGAATGTTCACCCCGAATGCCCTTCCGGAAGGAAATC TTG
55	Euphorbia heterophyll a	cDNA Contig	959	TCGCTCATAATCGCTTGATCGCAGTCCTATTTCGAGTTCAATT TTTTGAGATTCCGCTTATATTTTCAGAATGTTGGAGACAC AGAGGAGGCAGCCGTTAGCAGTAGGGGTTACTCGTGGGA ATGATTTACCAATGGTGTGCTTACGATGAGAAGCCCTGCT ACAATATCAGAAGTAGATCAATTTTGCCGTGCTCTTGGAG GAAAGAGACCGATCCACAGTATATTAATTGCAAACAATGG AATGGCAGCTGTCAAGTTTATACGAAGTGTTAGGACATGG GCTTATGAACTTTTGGCACTGAAAAGGCTATCTTGTTGGT GGCCATGGCAACTCCAGAAGACATGAGGATCAATGCAGA GCATATTAGAATAGCTGATCAGTTTGTGGAAGTTCCTGGG GGGACAAACAATAACAATTATGCCAATGTGCAACTCATTGT TGAGATGGCAGAGGTCACCCATGTTGATGCAGTTTGGCCT GGTTGGGGACATGCATCTGAAAACCCAGAGCTTCCAGATG CACTAACTGCAAAGGGAATCGTATTTCTTGGGCCCCCAGCT GCGTCCATGGGAGCTTTGGGTGATAAAATTGGATCCTCTTT GATTGCGCAAGCAGCAGATGTTCTACTCTTCCATGGAGT GGCTCTCATGTGAAAATTCCTCCAGAAAGTTGTTTGATTAC CATCCCCGATGACATATATAGAGAAGCATGTGTTACACAA CAGAGGAAGCTATTGCAAGCTGCCAAGTTGTTGGTTACCC TGCTATGATAAAGGCATCATGGGGCGGTGGTGGTAAAGG CATAAGAAAGGTTTATAATGATGATGAAGTTAGGGCATTG TTAAACAAGTTCAGGGTGAAGTTCCAGGATCACCCATATT TATAATGAAGGTTGCTTCCCAGAGTCGACATTTAGAAGTCC AATTGCTCTGCGATCAATATGGAAATGTAG
56	Euphorbia heterophyll a	cDNA Contig	935	CCAATTACCGTTGCACCATTGGTGACTGTAAAAAACTAGA GCAGGCAGCTCGAAGGTTAGCGAAATCTGTGAATTATGTG GGCGCTGCTACTGTTGAGTATTTGTACAGTATGGAACTG GCGAGTACTATTTTCTAGAGCTCAACCCTCGGTTACAGGTG GAGCATCCTGTACAGAGTGGATTGCTGAAATAAATTTGC CTGCTGCCCAAGTAGCTGTTGGGATGGGAATTCCTCTGTG GCAAATTCCTGAGATTAGGCGATTTTATGGAATGGAACAT GGTGGAGGATATGATGCTTGGAGGAAAACCTTCAGTGGCT

				GCTACGCCTTTTGATTTTGACAAGGTAGACTCTACAAAGCC AAAAGGTCATTGTGTAGCTGTACGTGTGACAAGTGAGGAT CCAGATGACGGTTTCAAGCCTACTAGTGGAAGTACTGG AGCTGAGTTTTAAAAGCAAGCCAAATGTGTGGGCTTATTTT TCTGTGAAGTCTGGTGGAGGCATTTCATGAATTCTCAGATTC ACAATTTGGACATGTTTTTGCAATTTGGGGAGTCCAGAGCTT TGGCAATAGCTAATATGGTTCTTGGGCTGAAGGAAATACA GATAAGAGGAGAAATCCGCACCAATGTTGACTACTCTGTT GACCTTTTACATGCTTCAGATTATAGGGAAAATAAAATTCA CACAGGTTGGTTGGACAGTAGAATAGCTATGAGGGTTAGA GCAGAAAGACCTCCTTGGTACCTCTCTGTTGTTGGAGGGG CACTATATAAAGCATCTGCTAGCAGCGCAGCTATGGTTTCT GATTATGTTGGTTACCTTGAAAAGGGCCAAATCCCTCCCAA GCACATATCACTTGTGAACTCTCAAGTTTCATTGAACATCG AAGGAAGCAAATATACGATTGACATGGTTAGAGGGGGGC CAGGGAG
57	Euphorbia heterophyll a	gDNA Contig	12503	TTTTCAGGTTTGTTCGATTTTCCGATTGTGTTTTTGA GTCGCTGTTGCTTGATTTCTGCTGCTGTTACTGCTGGTTGA CTCTTCTAGTGTGTTGATTGAGATTTGTTAGTTTGATTGAC TTCGATTTTGAATCGGATTTTGAAGTTGGAGTTGTAAGT GTTTTGAAGCGTGTTCGCGGTTTGTGCGTTTTTCTT ATGGATCCGATTCTTTATATGAATGCGGCGTTTGGCGCTG AGCAACATGAATTGGAATAAACTTGTGGTATTTTGCTCTT TTCTATATATTAGTCTAATTCAACTTCGATTATGGAATCTGA TTTTGAATTGGAGTATATGTAGTATATTAACATGTTTT TCGGTGTTCATTGTGTATTTTATGGATCCTGTGCATCG GAGATGCGTTTATATGAATACTGTGTTGGTGTGAGCAA CATAAATTGGATTATACTTGTCGAAAATAATTCTCGTAATA AGGTTCAAGGTATCTAGAAGTCTACCTGAAGTGATATAGT GGACCATGCGGATTTGATTCTTTGAGTTGTTTTCTTCAAGT CAAAGATCCTGTTATATTTAATTATTTCTTTGATTATGAA ATGAGTAATTAAGCAAGTGGTATGCTCAATTCGTTGAAAAT ATTATGTATTGAAAAGGATTTGAAGGTTACGAACTGGATTT TCAACTCGAATGAGTTTTTTTGTGCGAATGTTGGAGAC ACAGAGGAGGCAGCCGTTAGCAGTAGGGGTTACTCGTGG GAATGATTTACCAATGGTGTGCTTACGATGAGAAGCCCT GCTACAATATCAGAAGTAGATCAATTTGCGTGCTCTTGG AGGAAAGAGACCGATCCACAGTATATTAATTGCAAACAAT GGAATGGCAGCTGTCAAGTTTATACGAAGTGTTAGGACAT GGGCTTATGAACTTTTGGCACTGAAAAGGCTATCTTGTTG GTGGCCATGGCAACTCCAGAAGACATGAGGATCAATGCAG AGCATATTAGAATAGCTGATCAGTTTGTGGAAGTTCCTGG GGGGACAAACAATAACAATTATGCCAATGTGCAACTCATT GTTGAGGTGTGTAAGTTCATAACCTTTAGCATATTGGATA GCTTATGTTGTGTTAGTCTAAAGTTCGATAATTCTAAGCAT ATAATGATATTAAATGTGTTTAAGGATTTCTCAGTAATAGG AATTTGTAAATCTTTTCTGTCAATGGGTTTTACAGAAATTCA TAAATTATAATGTAATCTAGAAGCTTTGAAATTGTATTTTG

				CACATCTCAGAAGATTATGAAGTAATAGGCTGGTATACAG TGAATTTTCATTATTGCAAGATATTGTTGTTATGTGCTCACTC AAGAGCATTCTTTTCAATTTGGCAATGTGAAAAGGTTTCAGT TAGAAATATCACTTGTTACCCTTGTTGTTTGCATAACTAAGT TTGATTTTGTGTCCAGATGGCAGAGGTCACCCATGTTGATG CAGTTTGGCCTGGTTGGGGACATGCATCTGAAAACCCAGA GCTTCCAGATGCACTAACTGCAAAGGGAATCGTATTTCTTG GGCCCCCAGCTGCGTCCATGGGAGCTTTGGGTGATAAAAT TGGATCCTCTTTGATTGCGCAAGCAGCAGATGTTCTACTC TTCCATGGAGTGGCTCTCATGTAAGTAATGCTCTTCTCAAG CTGTTCTTTCATTTTCTGTAGTCATTCCAATCTAAGATATCA TGATCTTCCTTATAGGTGAAAATTCCTCCAGAAAGTTGTTT GATTACCATCCCCGATGACATATATAGAGAAGCATGTGTTT ACACAACAGAGGAAGCTATTGCAAGCTGCCAAGTTGTTGG TTACCCTGCTATGATAAAGGCATCATGGGGCGGTGGTGGT AAAGGCATAAGAAAGGTTTGGCTTCGATATAACAAATTTT CGAGTGTAGTGTTCAAGTCTGTAGTGTACGATGGCTGAGT TTTGTTTTCTTGATTATCTAGGTTTATAATGATGATGAAGT TAGGGCATTGTTTAAACAAGTTCAGGGTGAAGTTCCAGGA TCACCCATATTTATAATGAAGGTTGCTTCCCAGGTTAGGAT ATTATCTAGCTTCTAATTTGATACAAGAGATTTTACTTTGTG ATTCTTGACGCGTGAATCGAATTCTGATGATCTATTTGATT TCCTTATGTAGAGTCGACATTTAGAAGTCCAATTGCTCTGC GATCAATATGGAAATGTAGCAGCTTTGCATAGCCGTGATT GTAGTGTTCAAAGGCGGCATCAAAAGGCATGTTTATTTCTC TCAAGTAATTTTGATTTTGTCTGCTTAGTGAAATTGACCAT GAAAGTATAAGCTTAGTGTGAAGAGCCTGAGGCTCTGACC ACATGCATGTTGAGAATGAGCCAGTGACTTTTAATCAGTG GCTCAACCATTAATTTCTCCCCTTCCAAATTTCAACTGTTTG TACATCTATCTAGTATCTACTACATGGGTTATGCATTTCAAA AAAGGCCTAACTTGTGTTGAGATGTGAAACAGATAATTGA GGAGGGTCCAATTACCGTTGCACCATTTGGTGACTGTAAAA AACTAGAGCAGGCAGCTCGAAGGTTAGCGAAATCTGTGA ATTATGTGGGCGCTGCTACTGTTGAGTATTTGTACAGTATG GAACTGGCGAGTACTATTTTCTAGAGCTCAACCCTCGGTT ACAGGTATAAATGAATATAGTTTGTAGGGATGTGAAGTTG TTATGCTCTATAGTAGTAATGATATCTAAAATGCTTAAATTT TATGTTGCTCAATTGATGACAATTGGATAAACCGTATTAC TTGGGAAAAACCATCCTGAATATAGTTTCGTACCTCATTAC CTTGCGTACTACTGATATTGATCCTATGAATCTGTTTTTTAA AATATCTTTGTTTCTGTAATAAATTGTTCTTTGACTTTTCTAA TGATCTTTAATCTACATCCTAATCTGGATGTAGGTGGAGCA TCCTGTCACAGAGTGGATTGCTGAAATAAATTTGCCTGCTG CCCAAGTAGCTGTTGGGATGGGAATTCCTCTGTGGCAAAT TCCTGGTATGACCGCAAAAGTTGGAAATTCGCATTCTCTTG CTCATTAGACATGTTTCTTTGACATTCTGTTCATTTTTATTCA GAGATTAGGCGATTTTATGGAATGGAACATGGTGGAGGA TATGATGCTTGGAGGAAAACCTTCAGTGGCTGCTACGCCTTT
--	--	--	--	--

				TGATTTTGACAAGGTAGACTCTACAAAGCCAAAAGGTCATT GTGTAGCTGTACGTGTGACAAGTGAGGATCCAGATGACG GTTTCAAGCCTACTAGTGGAAAAGTACTGGTAAGGTTTTCA GGTTGACTATTCTAATTTGAATTTCTTCTATTCCAAAATTC CTTATCCTGTAATGAACTTGTACTTTTATTGTCTTGACAGG AGCTGAGTTTTAAAAGCAAGCCAAATGTGTGGGCTTATTTT TCTGTGAAGGTGACTTTTTGCTGCTCTCTTCTTTGGAACAT GTTTATGTTGACACAATTGGTTTCTGACTTAATAACTTCATT CTGATTTGTAGTCTGGTGGAGGCATTCATGAATTCTCAGAT TCACAATTTGGTAAGTAATAATTGCTAAATAATCACACTTC ATGGATAATAATGAAAAGAAGTTTGTGAGATGAGTTATCC AATCTGCTGCAAATTAATGGTTCTTTTTTATCTTCTTGTGAC ATTTTTTTTAAACAAAAGCTACAGTCTGCTTTTCAGTTTAGTC TTTTCCGTTTGTTACATTTGCTATCGAAAGCACTCATGATTG TCGTAATCTTTCCTTAGGACATGTTTTTGCATTTGGGGAGT CCAGAGCTTTGGCAATAGCTAATATGGTTCTTGGGCTGAA GGAAATACAGATAAGAGGAGAAATCCGCACCAATGTTGAC TACTCTGTTGACCTTTTACATGTAAACTATCTTAGCTGTTGA TGTTCCCTTTATACATCATGTAAACTTTCACGAGGAACATG AACACGAGTTGACATGCTATGCAGGCTTCAGATTATAGGG AAAATAAAATTCACACAGGTTGGTTGGACAGTAGAATAGC TATGAGGGTTAGAGCAGAAAGACCTCCTTGGTACCTCTCT GTTGTTGGAGGGGCACTATATGTAAGTTGTCACGATTTACAC ATGAGAGGATGACTGTATACTTTTGGAAATGCTTTATTATGT CTTTCAGAACTTGCCACTTAAGTGTTCAATTTTTTGTGTTGCA CCAGAAAGCATCTGCTAGCAGCGCAGCTATGGTTTCTGATT ATGTTGGTTACCTTGAAAAGGGCCAAATCCCTCCCAAGGTA CATCAAAAGTATATTTGTACAATTGTATATGTTTCTTATTCA GCCGATTATGTTGATGTTGATGTTGATGTTAGTTGATCTTG TTTTCAGCACATATCACTTGTGAACCTCTCAAGTTTCATTGAA CATCGAAGGAAGCAAATATACGGTATGGTACCTTTCATATT AGTATCTTAAATGAATAAATTTTAGTTTGGTGATGGATGCC ATTTACGTTTGTAAAATCATTGCTAGATTGACATGGTTAGA GGGGGGCCAGGGAGCTATAGATTGAGGATGAATGGATCG GAGATAGAGGCAGAAATTCATACACTGCGTGATGGAGGTT TATTGATGCAGGCAAGTTGACTCATTAAACCATGGCTGTTGT AACTAATAATTTTCGTCCTTTTTATCATTTAATATTTGCTTT AGTCGACCCTCCATGCTTTGGAGACCATAACAGACTCTATT CTGTTTCTTCACAGTTAGACGGAAACAGTCATGTAATATAT GCTGAAGAAGAAGCAGCCGGAACCTCGCCTTCTAATTGACG GGAGGACTTGCTTGCTACAGAATGATCATGATCCGTCAAA GTTAGTGGCAGAGACACCATGCAAACCTTCTGAGATATTTG GTTTCAGATGGTAGTCATATTGAAGCTGATGCTCCATATGC AGAGGTTGAAGTTATGAAGATGTGCATGCCTCTTCTTTCAC CTGCTTCTGGAGTTGTCCATTTTAAAATGTCTGAAGGTCAA GCAATGCAGGTGTGTTTGATTTCACAAACACGTGCTTTTGG GCTTGATAAGTACTTTTTAGTTTTATATGAATAGTCAGTTTT GATGTGAATCTAAGAAGTTTTCATGTAGGCTGGGGAGCTC
--	--	--	--	---

				ATTGCAAGGCTTGATCTTGATGATCCTTCTGCTGTAAGAAA GGCAGAGCCTTTTCATGGGAGATTCCCGCTACTTGGCTCTC CGACTGCTATTTCTGGTAAAGTTCATCAGAGATGTGCTGCA AGTTTGAATGCAGCCCGTATGATTCTTGCTGGCTATGATCA TAATATTGATGAAGTAAGTTGCAAGCTGGCTAGTTTCAACA TGAACCTAATTGATGAATTAATTGTTCAATTCTATATTTTGT GATTGTGTAATTTTCATAACAAAATAATGAACTATGCATTTG GTTTATTATACTGACAATTATTTGTTGAAATCTGATGTAATA TCTCAATGACATCTATAGGTAGTGCAAACTTGCTCAATTG CCTTGACAGTCCTGAACTCCCTTTCCTTCAGTGGCAAGAGT GCTTGTCTGTTCTAGCAACTCGCCTTCCCAAGGATCTTAGA AGCGAGGTGAATAATTTTTCTGTAATTTTTTCATGACCACA TAGTCTTCTTGCTCACAATTTGATATTGGCAATTTGTATAGT TGGAATCAAATAACACAGAGTTTGAAGGAATTTCAAGCTC CCAGAACATTGACTTCCCTGCCAACTGTAAAGGGGTGTCC TCGAGGTGGGTTCTTATTGCATGGCTCTCTTGGAATTTCT CATTATCTGTTTTTTTTGCTGTTTAATGAGATGTGTATGCTT TTCCTCCAGGCACACCTGAAATCCTGTCCTGAGAAAGAAAA AGGAGCCCTGGAAAGGCTTGTTGAACCTTTGATGAGTCTT GTAAAGTCTTATGAGGGAGGACGTGAGAGTCATGCTCGA GTGATCGTCCAATCACTTTTTGAAGAGTATTTATCTGTAGA AGAATTATTTAGTGACAACATCCAGGTAGCTTCTTCCTAT CAAACATAATATGGAATTATTTTGGATTCTGAAAGTCTTCC CTCTTTGGCATCTTTTAGAAAATTAAGCATAATACTAGGTA CTATATCCATTATTCTTTATAATCATGAAATTTAATTTTACA GAAGAAAAGTGGAATTTCTATATATATTTAAACCAAGCTG GCAAGCTTTGAATTCAATCCTGTTGTTTATTGTTTTATCCAA CATGCCAAAAATATTAGGAACTTCATGTGACTACTTGTATC ATTCTTATTCTGTAATTACAGTAAAGTAACTTGTCATATCCT AATGTTATAACTCGTAACATTCTTCTTTAGGCTGATGTGATT GAACGTCTCAGACTTCAATATAAGAAAGACCTTTTGAAGAT AGTGGACATTGTCCTTCTCATCAGGTATCTGATTTTCGGTT TTAATTTTTATCTCGGGTTTTCTAAAATAGAATTCTGAGTTT GTGGAAATAACTACCGTATTTGTTGGTTTATAGGGTGTTAA GAGTAAAAATAAGCTGATACTACGGCTCATGGAACAACTT GTTTACCCCAACCCTGCTGCATATAGGGATAAACTCATTG GTTCTCTCAGCTTAACCACACCAGCTATTCCGAGGTTGGCA GCTATACTTGGTCCATCTGTAATTTCATAAAGTTGTTGCTCT GTTTCCTTTTGTTCAAGTTCAATTTTGAGAGTTTTCCATA GGATGGTGACTGACAGGAAGAGGATTCTAATGTTTTCTCT TGGAGGATTTTTCTGTATTTTCATTTCTTGTCGGTCATTGA TTAATTCCGTTTCTGGTATCAGTATCATCAAATGTTGTCTT TTTCTGTATACTGATGCTGAATTATGTGAACAGTTGGCATT GAAGGCAAGTCAACTCCTAGAACAAACCAAACTGAGTGAA CTCCGTTCCACTATTGCTAGAAGCCTTTCGGAATTGGAGAT GTTTACCGAGGATGGTGAAAATATGGATACTCCCAAAGG AAAAGTGCCATTAATGAACGTATGGAGGATCTTGTGAGTG CTCCTTTGGCTGTTGAAGATGCTTTAGTGGGTCTTTTCGAG
--	--	--	--	--

				CACAGTGATCACACCCTTCAAAGGCGAGTGGTGGAACTT ATGTTCTAGGCTATATCAGGTACTGTGTTGTAGAACTTA AAACTTTTATCTGGTGATCAAACACTAGACGAACTTGATC TTGATCAACTGTTTGTCTACCGCACCAGCCCTATCTGGTCA AAGGTAGTGTGAGGATGCAGTGGCATAGATTTGGTCTTAT TGCTACATGGGAATTCTTGGGAGAGCATATCGGGAGAAAG AATGGATCTGAAGGTCAAATGTCAGATGAACCAGAGGCTA AAAAACAGTCTAATAAGAGATGGGGAGCAATGGTTATCAT CAGATCTCTGCAGTTTTTGCCTTCAGTTATTGGTGCTGCATT AAGGGAAACAAATCAAAGCCTTAATGAGTCCATTCCAAGT GGATTAGTAAAATCAGCGAGCTTTGGTAATATGATGCACA TAGCATTGGTAGGCATCAATAATCAGATGAGCTTACTACA GGATAGGTAACTTCCTTCGGTACTATAATATAAGCGTTTAT TTAATCATAAAAATTAGTAGCATTTTACATTCTATTATTCA TTGTAAGATCTCAAGTCTTCTTAATCATTTCTGCATTTGAAA CCTTGATAGATCTGGATAGATTCCTTATTTTTGTTTAAATT TATGATAGAGTTACCTGGTCTCGAACCCTTAAACATGCAC ATATATTGGCTTGCCAAACATAAGTTATTTGCGTTGTCAA TTTCGATTATTGACGGTCAGCTTGTTAATGCTCCTAACTGG CACCATCTATGACATTTTGCAGTGGTGATGAGGATCAGGC ACAAGAGAGAATTAACAAGTTAGCCAAAATTCTCAAAGAA CAGGAAGTAGGTTCCAGTTTGAGCTTGTCAGGCGTTGGAG TTATTAGCTGTATCATAAGAGGGATGAAGGGAGAGCCCC TATGAGGCACTCCTTTCAGTGGTCAGAGGAAAAGCTTTATT ATGAGGAAGAACCTCTATTGCGACATTTGGAACCTCCACTA TCCATCTACCTTGAAGTGGTTTGTCACCTATCGCAGTGTTTC AATACATTTTTTTGGCAGAAACCTTTATTGAGCCCCTGAAC TTACCAGTTTTATTCTCAAGTTATTATTGACTACATTAAAT ACTTAATTACTATTGATTCCACATTATGACCTTGCAATATAA TTACAAGTGTTACGTTTTATTGATAAAATTATAACTGTTGCT ATTTTGTTTTACATATATCAAGGACTGCACTATAGTAAAAA AATGAGGACTCGATAGGATTGGAAAGTTCAGGGGCTTACT AATTGTTTGAGCGGAAAAAAATATATATAAATGTGAAATT GGATAATTCTATATCATTCTATGAAGCTTATTATGGCCTTT TTTTGATCCAGGACAACTTAAAGGCTATGACAATAGACA ATATACTCAGTCAAGGGACAGACAATGGCACATGTACACT GTTGTAGACAAACCAGTTCCAATCCAGAGGATGTTTCTAAG AACCCTTGTGAGACAGCCCACAAGTACTTCATATCAAGGTC TTGGCGCCGAAGCACCCAATGTGCAGTGGGCCATGTCCTT TACGTCAAAGAGCATTTTGAGGTCCTTAGTAGCTGCAATG GAGGAACTGGAGCTTCACGTGCACACTGTCAAATCTGACC ATGCTCATATGTACCTCTGCATATTGAGGGAGCAACGGAT AGAAGATCTTGTTCCATACACGAAGTAATTATATCAATCTT TATGATTTATTGTGACTTGGCACCATAACTTTATGTGTACT CACTATGAGACTCCATCTCCAGGAAAACCGATGTAGATGC CAACCAAGAAGAAGCTGCGGTAGCAAGAATCTTGGAAGA ACTAGCGAGGAAGATACATGCGTCGGTTGGAGTCAGAAT GCATAGGTTAAATGTTTGCGAGTGGGAAGTGAAGCTATGG
--	--	--	--	---

				ATGACATCATCTGGACAGGCAAATGGTGCTTGGAGAGTTG TCACAACAAATGTGACTGGGCATACCTGTGCTGTGCATGT AAGTATCTGCGCATCTTATTTCAAGAAAATGTCTTCCCTTC CATGCATTCTTATTAGTCGACTTAGTAATGGGGAATGTCG AGAAGTGTTGGATGGTTACCAATGTGAGTACCATCACTGT TTAGATTAATAATTGACCATTGCTTTAGCAATACAATAATGA ATCTAATTGTGGCATGGGAGGCTTTTCTATGTGTGATCCAT GGAAAACTTGTATATAGTTCCTTAGTAGGTTTGAGTTGTT TTCATTTTTCTTTATCACATTGTAATTGTATTGGTGATTGAT ACGAAAATTAGATATATCGGGAACTTGGGGACGAGAGCA AACATGAAGTGGTGTACCATCAATCTCTCCAAGAGGCCCA CTGCATAGCATGCCAGTGAATGCTGTTTATCAGCCCTTGGG AGTTCTCGATCGAAAACGTTTGTTGGCAAGGAAGAGCAAC ACCACTTACTGCTATGATTTTCCACTGGTTAGTATTTCTATA ATCATTAAATCAAACATCAGTTTTTTTATTGGGGATAATTAA AATCAAATAATTTTTCTGGCCTCATCCTTTTCAGGCGTTTCG AGACAGCCATCGAACAATTATGGGAATCTCAATCACCAGG GACTGAAAGAAACAAAGAAAAAGTCCTAAAAGTCTCGGA GCTTGTTTTTGCCGATCAGAAAGGTACCTGGGGAACTCCA CTTGTTTCATGCAGAACGGCCAGCTGGGCTTAACGACGTGG GCATGGTAGCATGGTGCATGGAAATGTTACCCCCGGAATG CCCTCCGGAAGGAAAATCTTGATAGTAGCGAACGACGTG ACCTTCAAAGCCGGGTCTTTCGGCCCGAGAGAGGATGCAT TCTTTCCGCCATAACCGATCTTGCATGCACCAAAAAGCTC CCTTTAGTCTACCTGGCAGCAAACCTCTGGTGCTCGTATAGG TGTTGCCGAGGAAGTCAAGTCTTGCTTTAAAGTCGGTTGG TCAGATGAGTCATCTCCCGAGCGTGGTTTCCAGTACGTATA TTTGACTCCCGAGGATTATGTAACCATTGGATCATCGGTGA TAGCACACGAGCTGAATCAGAATGGAGAAACACGGTGGG TCATAGATGCCATTGTTGGGAAAGAGGATGGCTTAGGTGT CGAAAATTTATCGGGAAGTGGAGCCATTGCTAGTGCATAC TCAAGGGCATATAAGGAAACCTTCACATTGACATACGTAA CTGGAAGAACAGTGGGAATCGGTGCTTACCTGGCACGCCT CGGGATGAGATGCATACAACGGCTCGATCAACCGATCATC TTGACCGGGTTCTCCGCGTTAAACAAACTCCTCGGCCGTGA AGTGTATAGCTCTCACATGCAACTCGGCGGTCCGAAAATTA TGGCCACCAATGGGGTAGTCCATCGCACCGTCTCCGATGA CCTCGAAGGTATTTTCGGAAATCCTGAAATGGCTAAGCTGT ATTCCCCCTCAAAGCGGCGGGGCAATTCCGGTATTTCTTC TCCGGATCCTCCGGAGCGACCCGTGGAGTACTTCCAGAA ACATCGTGCGACCCGCGGGCGGCCATCTCGGGTACAATGG ACGGCAGCGGGAAGAAGTGGCTCGGGGGTATTTTCGACA AAGACAGCTTCGTGGAGACACTGGAAGGGTGGGCGAGGA CCGTGGTGACCGGGCGGGCAAAGCTCGGGGGGATTCCGG TTGGGATAATAGCCGTCGAGACTCAAACCGTGATGCAAGT GATCCCCGCCGACCCGGGCCAGCTGGACTCGCACGAGCG GGTCGTGCCCCAGGCGGGTCAAGTATGGTTCCAGATTTCG GCGAATAAAACCGCCCAAGCGATTATGGATTTCACCGAG
--	--	--	--	--

				AAGAGCTCCCGCTCTTTATCCTCGCCAACTGGCGAGGCTTC TCGGGCGGCCAACGAGACCTCTTCGAAGGTATCCTACAGG CGGGGTCCACCATAGTGGAACCTTAAGGACATATAACCA ACCGGTTTTTCGTATACATCCCTATGATGGGCGAGCTTCGTG GTGGGGCCTGGGTTGTTGTGGACAGTCAGATAAATTCCGA CCACATCGAGATGTACGCTGATCGGACGGCTAAAGGCAAC GTCCTTGAACCGGAAGGAATAATCGAGATCAAGTTTAGAA CAAAGGAGTTGCTCGATTGCATGAATCGACTCGACCCAAA GCTGATATCTTTAAAAACCAAATAACCGAAGCGAAGAAT AGTGGGACCTACGGGATGGTCGATTCCGTACAACAGCTGA TAAATCCCGGGAAAAGCAACTTCTGCCGCTTTACACGCAA ATCGCCACACGATTGCGCGAGCTTCACGACTCGGCTTTACG AATGGCGGCAAAGGGGGGTGATTGAGAAAGTTGTGCGACTG GGGGATTTACGATCTTACTTCTACAAAAGGTTAAGAAGG AGAATCGCCGAGGCTTCGTTGGTGAACACCGTGAAAGATG CAGCGGGTGATAAGCTCCAGCATAAGTCGGCTATGGAGTT GGTCAAAAAGTGGTTTCTGGACTCGAAAGGCGATTGGGAA AACGATGAAGCTTTCTATGCTTGGAAGGATAATCCCGCGA ATTACGAGGAAAAGCTACAGGAGTTACGGGTCCAGAAGG TGTTGCTTCAGTTAACTAACATTGGCGAGTCTTTGTGCGAT TTGAAAGCTTTACCTCAAGGTCTTGCTGCCCTTCTAAATAA GGTAATTTTTTGGGTTTTTTCTTCCAGGAATATTGTTTATTT AGACGATCGAGTCGGATGTTATGTAATACTTTATGTTTGAT GTAGGTGGAGCCATCGAGCCGAGGGGCGTTGATCGATGA GCTTCGGAAGGTGCTTAATTGATTTTCGGTAAGTGTTTCTC GGCTACTAAATATGTTTTACTTTGGCTTCAGTCTCTGGGTA GTTTGAATCAATAGAAAATGCCAATGTGAAAATACCCAGT AATATATTTGATAAGTGTAATGTAATACTATTATTATTTAA GTGAATAGGGGGAATTAGTTCATATGATTATTGTTGTTATA AACAAATCAGAGATAGAGAGAGCTATATTTATTATTATATT TGCGAATTAAAGTTATTAGGAGTAGTATAATTTGGCGGTT GTTGCATTTTACGTGTAATGATCTGAATGTTGTTTGTTCTG GATTATTGAATAAAAGGGCATCAAATGCCATAATTTATCTT TCTTTGTTAACAAGATTTTAATTAGTTTTTTTTTAATTATTAGT ATGTTTTGTATAATTTATATT
58	Euphorbia heterophyll a	gDNA Contig	5227	TATATAAATGTGAAATTGGATAATTCTATATCATTCATCTG AAGCTTATTATGGCCTTTTTTGATCCAGGACAACTTAAAG GCTATGACAATAGACAATACTCAGTCAAGGGACAGACA ATGGCACATGTACACTGTTGTAGACAAACCAGTTCCAATCC AGAGGATGTTTCTAAGAACCCTTGTGAGACAGCCCACAAG TACTTCATATCAAGGTCTTGGCGCCGAAGCACCCAATGTGC AGTGGGCCATGTCCTTTACGTCAAAGAGCATTTTGAGGTCC TTAGTAGCTGCAATGGAGGAACTGGAGCTTCACGTGCACA CTGTCAAATCTGACCATGCTCATATGTACCTCTGCATATTG AGGGAGCAACGGATAGAAGATCTTGTTCCATACACGAAGT AATTATATCAATCTTTATGATTTATCGTGTACTTGGCACCAT AACTTTATGTGTACTCACTATGAGACTCCATCTCCAGGAAA ACCGATGTAGATGCCAACCAAGAAGAAGCTGCGGTAGCA

				AGAATCTTGGAAGAACTAGCGAGGAAGATACATGCGTCG GTTGGAGTCAGAATGCATAGGTTAAATGTTTGCGAGTGGG AAGTGAAGCTATGGATGACATCATCTGGACAGGCAAATGG TGCTTGGAGAGTTGTCACAACAAATGTGACTGGGCATACC TGTGCTGTGCATGTAAGTATCTGCGCATCTTATTTCAAGAA AATGTCTTTCCCTTCCATGCATTCCCTTAGTTCGACTTAGT AATGGGGAATGTCGAGAAGTGTTGGATGGTTACCAATGTG AGTACCATCACTGTTTAGATTAAAATTGACCATTGCTTTAG CAATACAATAATGAATCTAATTGTGGCATGGGAGGCTTTTC TATGTGTGATCCATGGAAAACTTGTATATAGTTCCTTAGT AGGTTTGAGTTGTTTTCATTTTTCTTTTATCACATTGTAATT GTATTGGTGATTGATACGAAAATTAGATATATCGGGAACT TGGGGACGACAGCAAACACGAAGTGTTTTACCATTCGATC TCTCCAAGAGGCCCACTGCATAGCATGCCAGTGAATGCTG TTTATCAGCCCTTGGGAGTTCTCGATCGAAAACGTTTGTTG GCAAGGAAGAGCAACACCACTTACTGCTATGATTTTCCACT GGTTAGTATTTATATAATCATTAAATCAAACATCAGTTTTTT ATTGGGGATAACTAAAATCAAATAATTTTCTGTCCTCAT CCTTTTCAGGCGTTTCGAGACAGCCATCGAACAATTATGGG AATCTCAATCACCAGGGACTGAAAGAAACAAAGAAAAAGT CCTAAAAGTCTCGGAGCTTGTTTTTGCCGATCAGAAAGGTA CCTGGGGAACCTCACTTGTTTCATGCAGAACGGCCAGCTGG GCTTAACGACGTGGGCATGGTAGCATGGTGCATGGAAAT GTTCACCCCAGAATGCCCTTCGGAAGGAAAATCTTGATA GTAGCGAACGACGTGACCTTCAAAGCCGGGTCTTTCGGTC CAAGAGAGGATGCATTCTTTTCGCCATAACCGATCTGGCA TGCACCAAAAAGCTCCCTTTAGTCTACCTGGCAGCAAATC TGGTGCTCGTATAGGTGTTGCCGAGGAAGTCAAGTCTTGC TTAAAGTCGGTTGGTCAGATGAGTCATCTCCCGAGCGTG GTTCCAGTACGTATATTTGACTCCCGAGGATTATGCAACC ATTGGATCATCGGTGATAGCACACGAGCTGAATCAGAATG GAGAAACACGGTGGGTCATAGATGCCATTGTTGGGAAAG AGGATGGCTTAGGTGTCGAAAATTTATCGGGAAAGTGGAG CCATTGCTAGTGCATACTCAAGGGCATATAAGGAAACCTTC ACATTGACATACGTAACCTGGAAGAACAGTGGGAATCGGTG CTTACCTGGCACGCCTCGGGATGAGATGCATACAACGGCT CGATCAACCGATCATCTTGACCGGGTTCTCCGCGTTAAACA AACTCCTCGGCCGTGAAGTGTATAGCTCTCACATGCAACTC GGCGGTCCGAAAATTATGGCCACCAATGGGGTAGTCCATC GCACCGTCTCCGATGACCTCGAAGGTATTTTCGAAATCCTG AAATGGCTAAGCTGTATTCCCCCTCAAAGCGGCGGGGCAA TTCCGGTATTTCTTCTCCGGATCCTCCGGAGCGACCCGTG GAGTACTTCCCAGAAACATCGTGCGACCCGCGGGCGGCCA TCTCGGGTACAATGGACGGCAGCGGGAAGAAGTGGCTCG GGGGTATTTTCGACAAAGACAGCTTCGTGGAGACACTGGA AGGGTGGGCGAGGACCGTGGTGACCGGGCGGGCAAAGC TCGGGGGGATTCCGGTTGGGATAATAGCCGTCGAGACTCA AACCGTGGTGCAAGTGATCCCCGCCGACCCGGGCCAGCTG
--	--	--	--	---

				GACTCGCACGAGCGGGTCGTGCCCCAGGCGGGTCAAGTA TGGTTCCCAGATTCGGCGAATAAAACCGCCCAAGCGATTA TGGATTTCAACCGAGAAGAGCTCCCGCTCTTTATCCTCGCC AACTGGCGAGGCTTCTCGGGCGGCCAACGAGACCTCTTCG AAGGTATCCTACAGGCGGGGTCCACCATAGTGGA AAACTT AAGGACATATAACCAACCGGTTTTCTGTATACATCCCTATGA TGGGCGAGCTTCGTGGTGGGGCCTGGGTTGTTGTGGACA GTCAGATAAATTCTGACCACATCGAGATGTACGCTGATCG GACGGCTAAAGGCAACGTCCTTGAACCGGAAGGAATAATC GAGATCAAGTTTAGAACAAAGGAGTTGCTCGATTGCATGA ATCGACTCGACCCAAAGCTGATATCTTTAAAAACCAAATA ACCGAAGCGAAGAATAGTGGGACCTACGGGATGGTCGAT TCCGTACAACAGCTGATAAAATCCCGGGAAAAGCAACTTC TGCCGCTTTACACGCAAATCGCCACACGATTCGCCGAGCTT CACGACTCGGCTTTACGAATGGCGGCAAAGGGGGTGATTC GAGAAGTTGTCGACTGGGGGATTTACGATCTTACTTCTAC AAAAGGTTAAGAAGGAGAATCGCCGAGGCTTCGTTGGTG AACACCGTGAAAGATGCAGCGGGTGATAAGCTCCAGCATA AGTCGGCTATGGAGTTGGTCAAAA ACTGGTTTCTGGACTC GAAAGGCGATTGGGAAAACGATGAAGCTTTCTATGCTTGG AAGGATAATCCCGCGAATTACGAGGAAAAGCTACAGGAG TTACGGGTCCAGAAGGTGTTGCTTCAGTTAACTAACATTGG CGAGTCTTTGTCGGATTTGAAAGCTTTACCTCAAGGTCTTG CTGCCCTTCTAAATAAGGTAATTTTTTGGGTTTTTCTTCCA GGAATATTGTTTATTTAGACGATCGGAGTCGGATGTTATGT AACACTTTATGTTTGATGTAGGTGGAGCCATCGAGCCGAG GGGCGTTGATCGATGAGCTTCGGAAGGTGCTTAATTGATT TTCGGTAAGTGTTTCTCGGCTACTAAATATGTTTTACTTTGG CTTCAGTCTCTGGGTAGTTTGAATCAATAGAAAATGCCAAT GTGAAAATACCCAGTAATATATTTGATAAGTGTAATGTAA CTATTATTATATTTAAGTGAATAGGGGGAATTAGTTCATAT GATTATTGTTGTTATAAACAAATCAGAGATAGAGAGAGCT ATATTTATTATTATATTTGCGAATTAAAGTTATTAGGAGTA GTATAATTTGGCGGTTGTTGCATTTTACGTGTAATGATCTG AATGTTGTTTGTTCTGTGATTATTGAATAAAAGGGCATCAAA TGCCATAATTTATCTTTCTTTGTTAACAAGATTTTAATTAGT TTTTTTAATTATTAGTATGTTTTGTATAATTTATATTTGACT AATTAATGAGTTCTTTCTGAATTTATACCAAATTTCAATAT AATACTGAATTTAAACTTGAGTCTAGATTACCAACAAGGT GTAGCTCAGTTGGCAACGCAGGCTGGGTAAGTTGGAGGA GAACAATGTTTGAATCCTACTAAATACACTTGTTGGGAGG GGTGATGAGCCTTA ACTGTGATTAAGTCCCGAACAAGATT ATCTCAATGGTGATACTTGTAATTATTACCAAAAAAACTT GAGTCTACGATGCAAATATGTATTATCTAGGCATGGTCTAA TTAGATTTAAATATGGGCTGATTGGATTTAAATTTCTCTTTT TTAGTACGATCTTATTAATTCAAATTAGAGTCCATTACATT TCTAATGGATGAGAAACACGTCCTCCTCTATGTCAAAGAA ATAGATGTCTTGGCTAATAAATGGACA ACTTGATTTCGTAGA
--	--	--	--	--

				CCTATTAACAAAAACAACCTTTTAAACCTAAAAAAGAGGTCA TGAGTATTTTGCAATCGAAAATAGTGAAACCTATTGACGAA TGAAGAGGAGAGTTGATCAGAGCATATAGCTCGAGAATG ACACTATCCAAGCCTTGGCTCTTTAGTCAACTGAGCGCCTC TCTGCAACTCATAGCCTCTACTAGAAGAACATCTTGCATGA GAGAGGATTGGGCTGCTACAAATCTACCCATATAATCTCG AATTACACAGCCATTCTATCTACCATTCTCAAACACACTAGC ACGTTACATTTAAATCCAATGTTGTTTTAGCTTTGGATGTTT TGTGTGTCATTAATGTTTGTGTCTGCCATTCACTGAGGAA CCCCAACTGTGCCTAATAACTTGGGAATCAATTCGAAAAC GTTGATTCCAAGCCCAGCTATTCCTTCTGGGACCATATAGT GCACAAAATCAAATCCACCAATCTGTGATGGAAGCTATCG AATATGGCCACCCATTGCTGCAAATGCCCGACCATAACGC GAGAGCAAATGGTCAGGTAACGAGGGCGTGATAAGTCAA TGTGTCGTGTCAGCCCCATCACTGCATATAGAACCAACATG GTCGATCATAATATGCTTATCTTGAAGCCTAACCAACGTTG GTAATGGGAGTCCCACCATCGCTACTTTCCAAAAAAAGAT GAGTACATGAGCTGGGAATTGGATGTCCCGAATTTTTAGA TTAAATATATCAACATTATAAATTTCTTTTTTTTTTTTATAA ATTAACATTATAAATTCAATCAAATGATAATCGTTCTATG AT
59	Euphorbia heterophyll a	gDNA Contig	4102	ATGTTAGTTGATCTTGTTTTAGCACATATCACTTGTGAACT CTCAAGTTTCATTGAACATCGAAGGAAGCAAATATACGGT ATGGTACCTTTCATATTAGTATCTTAAATGAATAAATTTTAG TTGGTGATGGATGCCATTTACGTTTGTAATAATCATTGCTA GATTGACATGGTTAGAGGGGGGCCAGGGAGCTATAGATT GAGGATGAATGGATCGGAGATAGAGGCAGAAATTCATAC ACTGCGTGATGGAGGTTTATTGATGCAGGCAAGTTGACTC ATTAACCATGGCTGTTGTAACTAATAATTTTCGTCCTTTTT ATCATTTAATATTTGCTTTAGTCGACCCTCCATGCTTTGGAG ACCATAACAGACTCTATTCTGTTTCTTCACAGTTAGACGGA AACAGTCATGTAATATATGCTGAAGAAGAAGCAGCCGGAA CTCGCCTTCTAATTGACGGGAGGACTTGCTTGCTACAGAAT GATCATGATCCGTCAAAGTTAGTGGCAGAGACGCCATGCA AACTTCTGAGATATTTGGTTTCAGATGGTAGTCATATTGAA GCTGATGCTCCATATGCAGAGGTTGAAGTTATGAAGATGT GCATGCCTCTTCTTTCACCTGCTTCTGGAGTTGTCCATTTTA AAATGTCTGAAGGTCAAGCAATGCAGGTGTGTTTGATTTC ACAAACACATGCTTTTGGGCTTGATAAGTACATTTTGGTTT TATATGAATAGTCAGTTTTGATGTGAATCTAAGAAGTTTTC ATGTAGGCTGGGGAGCTCATTGCAAGGCTTGATCTTGATG ATCCTTCTGCTGTAAGAAAGGCAGAGCCTTTTCATGGGAG ATTCCCGCTACTTGGCTCTCCGACTGCTATTTCTGGTAAAGT TCATCAGAGATGTGCTGCAAGTTTGAATGCAGCCCGTATG ATTCTTGCTGGCTATGATCATAATATTGATGAAGTAAGTTG CAAGCTGGCTAGTTTCAACATGAACTTAATTGATGAATTAA TTGTTCAATTCTATATTTTGTGATTGTGTAATTCATAACAA ATAATGAACTGTGCATTTGGTTTATTATATTGACAATTATT

				TGTTGAAATCTGATGTAATATCTCAATGACATCTATAGGTA GTGCAAACTTGCTCAATTGCCTTGACAGTCCTGAACTCCC TTTCCTTCAGTGGCAAGAGTGCTTGTCTGTTCTAGCAACTC GCCTTCCCAAGGATCTTAGAAGCGAGGTGAATAATTTTTCT GTAATTTTTTCATGACCACATAGTCTTCTTGCTCACAATTTG ATATTGGCAATTTGTATAGTTGGAATCAAAATACACAGAGT TTGAAGGAATTTCAAGCTCCCAGAACATTGACTTCCCTGCC AAACTGTTAAGGGGTGTCCTCGAGGTGGGTTCTTATTGC ATGGCTCTCTTGGAATTTCTCATTATCTGTTTTTTTTGCTGTT TAATGAGATGTGTATGCTTTTCTCCAGGCACACCTGAAAT CCTGTCCTGAGAAAGAAAAAGGAGCCCTGGAAAGGCTTGT TGAACCTTTGATGAGTCTTGTAAGTCTTATGAGGGAGGA CGTGAGAGTCATGCTCGAGTGATCGTCCAATCACTTTTTGA AGAGTATTTATCTGTAGAAGAATTATTTAGTGACAACATCC AGGTTAGCTTCTTCCTATCAAACATAATATGGAATTATTTTG GATTCTGAAAGTCTTCCCTCTTTGGCATCTTTAGAAAATTA AGCATAATACTGGGTACTATATCCATTATTCTTTATAATCAT GAAATTTATTCTTACAGAAGAAAAGTGGAATTTCTATATAT ATTTAAACCAAGCTGGCAAGCTTTGAATTCAATCCTGTTGT TTATTGTTTTATCCAACATGCCAAAAATATTAGGAACTTCAT GTGACTACTTGTATCATTCTTATTCTGTAATTACAGTAAAGT AACTTGTCATATCCTAATGTTATAACTCGTAACATTCTTCTT TAGGCTGATGTGATTGAACGTCTCAGACTTCAATATAAGAA AGACCTTTTGAAGATAGTGGACATTGTCCTTCTCATCAGG TATCTGATTTTCGGTTTTAATTTTTATCTCGGGTTTTCTAAA ATAGAATTCTGAGTTTGTGGAAATAACTACCGTATTTGTTG GTTTATAGGGTGTTAAGAGTAAAAATAAGCTGATACTACG GTCATGGAACAACCTTGTTTACCCCAACCCTGCTGCATATA GGGATAAACTCATTGGTTCTCTCAGCTTAACCACACCAGC TATTCCGAGGTTGGCAGCTATACTTGGTCCATCTGTAATTT CATAAAGTTGTTGCTCTGTTTCCTTTTGTTCAAGTTCATT TTTGAGAGTTTTCCATAGGATGGTGAAGTACAGGAAGAGG ATTCTAATGTTTTCTCTTGGAGGATTTTTCTGTATTTTCATT TCTTGTCGGTCATTGATTAATTCCGTTTCTGGTATCAGTATC ATCAAAATGTTGTCTTTTTCTGTATACTGATGCTGAATTATG TGAACAGTTGGCATTGAAGGCAAGTCAACTCCTAGAACAA ACCAAACCTGAGTGAACCTCCGTTCCACTATTGCTAGAAGCCT TTCGGAATTGGAGATGTTTACAGAGGATGGTGAAAATATG GATACTCCCAAAGGAAAAGTGCCATTAATGAACGTATGG AGGATCTTGTGAGTGCTCCTTTGGCTGTTGAAGATGCTTTA GTGGGTCTTTTCGAGCACAGTGATCACACCCTTCAAAGGC GAGTGGTGGAACCTTATGTTTCGTAGGCTATATCAGGTA GTGTTGTAGAACTTAAACTTTTATCTGGTGATCAAACAC TAGACGAACTTGATCTTGATCAACTGTTTGTCTACCGCAC CAGCCCTATCTGGTCAAAGGTAGTGTCAGGATGCAGTGGC ATAGATTTGGTCTTATTGCTACATGGGAATTCTTGGGAGAG CATATCGGGAGAAAGAATGGATCTGAAGGTCAAATGTCAG ATGAACCAGAGGCTAAAAACAGTCTAATAAGAGATGGG
--	--	--	--	--

				GAGCAATGGTTATCATCAGATCTCTGCAGTTTTTGCCTTCA GTTATTGGTGCTGCATTAAGGGAAACAAATCAAAGCCTTA ATGAGTCCATTCCAAGTGGATTAGTAAAATCAGCGAGCTTT GGTAATATGATGCACATAGCATTGGTAGGCATCAATAATC AGATGAGCTTACTACAGGATAGGTAACCTTCCTTCGGTACTA TAATATAAGCGTTTTATTTTAATCATAAAAATTAGTAGCATTT TACATTCTATTATTCAATTGTAAGATCTCAAGTCTTCTTAATC ATTTCTGCATTTGAAACCTTGATAGATCTGGATAGATTCCTT ATTTTTGTTTAAAATTTATGATAGAGTTACCTGGTCTCGAAC CCTTAAACATGCACATATATTGGCTTGCCAAACATAAGTT ATTTTGC GTTGTCAATTTTCGATTATTGACAGTCATCTTGTTA ATGCTCCTAACTGGCACCATCTATGACATTTTGCAGTGGTG ATGAGGATCAGGCACAAGAGAGAATTAACAAGTTAGCCA AGATTCTCAAAGAACAGGAACTAGGTTCCAGTTTGAGCTT GTCAGGCGTTGGAGTTATTAGCTGTATCATACAGAGGGAT GAAGGGAGAGCCCCTATGAGGCACTCCTTTCCTGGTCAG AGGAAAAGCTTTATTATGAGGAAGAACCTCTATTGCGACA TTTGAACCTCCACTATCCATCTACCTTGAACCTGGTTTGTC CCTATCGCAGTGTTTCAATACATTTTTTTGGCAGAAACCTTT ATTGAGCCCCTGAACTTACCAGTTTTATTCTCAAGTTATTAT TTGACTACATTAAATACTTGAATTACTATTGAATCCACATTA CGACCTTGAAAACGTTTTATTGATAAAATTATAACTGTTGC TATTTGTTTTACATATATCAAGGACTGCACTATAGTAAAA AAATGAGGACTCGATATGATTGGAAAGTTCAGGGGCTTAC TAATTGTTTGAGCGGAAAAAAATATATATAAATGTGAAATT GGATAA
60	Euphorbia heterophyll a	gDNA Contig	1523	AAAATATCTTTGTTTCTGTAATAAATTGTTCTTTGACTTTTCT AATGATCTTTAATCTACATCCTAATCTGGATGTAGGTGGAG CATCCCGTCACAGAGTGGATTGCTGAAATAAATTTGCCTGC TGCCCAAGTAGCTGTTGGGATGGGAATTCCTCTGTGGCAA ATTCCTGGTATGACCGCAAAAGTTGGAAATTCACATTTTCT TGCTCATTAGACATGTTTCTTTGACATTCTGTTGATTTTTAA TCAGAGATTAGGCGATTTTATGGAATGGAACATGGTGGAG GATATGATGCTTGGAGGAAAACCTCAGTGGCTGCTACGCC TTTTGATTTTGACAAGGTAGACTCTACAAAGCCAAAAGGTC ATTGTGTAGCTGTACGTGTGACAAGTGAGGATCCAGATGA CGGCTTTAAGCCTACTAGTGGAAAAGTACTGGTAAGGTTT TCAGGTTGACTATTCTAATTTGAATTTCTTCTATTCCAAAA TTCCTTATCCTGTAATGAACTTGTACTTTTATTGTCTTGCAC AGGAGCTGAGTTTTTAAAAGCAAGCCAAATGTGTGGGCTTA TTTCTCTGTGAAGGTGACTTTTTGCTGCTCTCTTTCTTTGGA ACATGTTTATGTTGACACAATTGGTTTCTGACTTAATAACTT CATTCTGATTTGTAGTCTGGTGGAGGCATTCATGAATTCTC AGATTCACAATTTGGTAAGTAATAATTGCTAAATAATCACA CTTCATGGATAATAATGAAAAGAAGTTTGTGAGATGAGTT ATCCAATCTGCTGCAAATTAATGGTTCTTTTTTATCTTCTTG TGACATTTTTTTTAAACAAAAGCTACAGTCTGCTTTTCAGTTT AGTCTTTTCCGTTTGTTACATTTGCTATCGAAAGCACTCATG

				ATTGTCGTAATCTTTCCTTAGGACATGTTTTGCATTTGGGG AGTCCAGAGCTTTGGCAATAGCTAATATGGTTCTTGGGCT GAAGGAAATACAGATAAGAGGAGAAATCCGCACCAATGT TGACTACTCTGTTGACCTTTTACATGTAAACTATCTTAGCTG TTGATGTTCCCTTTATACATCATGTAAACTTTACAGAGGAA CATGAACACGAGTTGACATGCTATGCAGGCTTCAGATTATA GGGAAAATAAAATTCACACAGGTTGGTTGGACAGTAGAAT AGCTATGAGGGTTAGAGCAGAAAGACCTCCTTGGTACCTC TCTGTTGTTGGAGGGGCACTATATGTAAGTTGTCACGATTT CACATGAGAGGATGACTGTATACTTTTGGAAATGCTTTATTA TGTCTTTCAGAACTTGCCACTTAAGTGTTCAATTTTTTGT GCACCAGAAAGCATCTGCTAGCAGCGCAGCTATGGTTTCT GATTATGTTGGTTACCTTGAAAAGGGCCAAATCCCTCCCAA GGTACATCAAAAGTATATTTGTACAATTGTATATGTTTCTTA TTCAGCCGATTATGTTGATGTTGATGTTAGTTGATCTTGTTT TCAG
61	Xanthium strumarium	cDNA Contig	1349	GTTGTTGTCAAGTCTCTATTTGAGGAGTATCTGTCTGTTGA AGAACTCTTCAATGATAACCTTCAGTCTGATGTTATAGAGC GTCTACGTCTTCAACATGCAAAAGACCTTGAGAAGGTTGTA CACATTGTGTTCTCGCACCAGGGTGTGAGAAACAAAAATA AATTAATACTACGGCTTATGGAAGCATTAGTATATCCAAAC CCATCTGCTTACAGAGACCAGTTGATTCGCTTCTCTGCCTT GAACCATACATCTTATTCTGAGTTGGCACTTAAAGCAAGCC AACTTCTAGAGCATACTAAATTGAGTGAACCTTCGAACAAGC ATAGCAAGAAGCCTTTCAGAGTTGGAGATGTTTACTGAGG AAGGAGAACGGGTGTCAACACCTAGGAGAAAGATGGCAA TAAATGAGAGGATGGAAGATTTAGTATGTGCTCCACTGGC AGTTGAAGATGCTCTTGAGCTTTGTTTGATCACAGCGATC CTACACTTCAGCGGAGGGTTGTTGAGACATATATACGTCG ATTGTATCAGCCCTACCTTGTAAGTGGAAGTATCCGGATGC AATGGCACCGAGCTGGCTTAATTGCTTTATGGGAGTTCTCT GAAGAGCATCTTAAGCAAAGAAATGGGCACGATGTGCTTG TACAGCAAGTAGAGAATCCCATTGAGAAGAGATGGGGTG TCATGGTTGTAATCAAGTCTCTTCAGTTTCTAGCAACTGCA ATTGATGCTGCACTGAAGGAGACCTCGCAATATAGAGCAG GTGCTGTAAGTGTCTCGAATGGTAACCATGTAAATTCAAAT CAAAGCAATATGCTGCATATTGCTTTGGTTGGTATCAATAA TCAGATGAGTACTCTCCAAGACAGTGGTGACGAGGATCAA GCACAGGAAAGGATCAACAACTATCCAAAATTTTGAAGG ATAATACTATTACATCGCAACTTAATGGTGCTGGTGTTAAG GTCGTGAGTTGCATTATCCAAAGAGATGAAGGGCGTCCAC CAATGCGACACTCCTTCCATTGGTCTGTTGACAAGCTTTATT ATGAGGAGGATCCAATGCTCCGCCACGTGGAACCACCATT GTCTACATTCTTGAGCTGGACAAAGTAAATTTGGAGGGT TAACTGAAGTAAAATACACCCCATCACGTGATCGTCAGTG GCATATTTACACACTTATCAAGAACAAGAAAGATCAGAGA TTAAACGACCAGAGGATGTTCCCTTCGTACCATAGTCAGACA ACAAAGCGCAACAAATGGTTTCCTGTCAGGAAATATTGAC

				AATGAAGTAGGCCGCACTCAAGCTTCGTCATTCACATCACA CAGCATCCTCAG
62	Commelina diffusa	cDNA Contig	7098	ATGACACTGATTAAATATCTATGTAGAACGCCTGAAGCCCA GAAGGGAGCAGTTATGGCAGATGTCTGGCAAGATCATGG GATTTTAAATGGGACAGTTCAAGTCAAACATGCAGCTACA ACGTCTGAAGTTGATGATTTCTGTTATGCACTTGGTGGAAA GAGACCTATTCGCAGCATATTGATTGCTAATAATGGAATG GCTGCTGTCAAATTCATGCGTAGTATTAGAACCTGGGCTTA CGAAACATTTGGATCAGAAAAGGCAATTTTGTGTTGCG ATGGCAACTCCAGAAGACTTGAGGATAAATGCCGAGCACA TTAGAATTGCTGATCAATTTGTAGAGGTTCCCGGTGGAACC AATAATAACAATTATGCAAATGTTCAACTCATTGTGGAGCT GGCCGAAATAACACGTGTTTCTGCAGTTTGGCCTGGATGG GGCCATGCATCCGAGAATCCCGAACTTCCAGATGCCCTGA ATGCAAAGGGAATAATCTTTCTCGGGCCTCCAGCTGCGCC AATGTCAGCACTAGGTGATAAAATTGGTTCTTCTCTAATTG CTCAGGCAGCAGGTGTACCAACTCTTCCGTGGAGTGGCTC ACATGTCAAATTTTCAGCGGAAAGTTGTATGGACACAATA CCCGAAGAGATATACAAGCAGGCTTGTGTTTATACAACAG AAGAAGCAGTGGCCAGCTGCCAGGTAGTTGGCTATCCTGC CATGATAAAGGCATCTTGGGGCGGTGGTGGTAAAGGAAT AAGAAAGGTTCACAATGACGATGAAGTGAGAGCTCTCTTC AAACAAGTGCAAGGAGAAGTTCCAGGATCTCCAATATTTA TAATGAAAGTGGCATCACAGAGTCGTCACCTTGGAAGTTCA GTTGCTTTGTGATGAATATGGCAATGTTGCTGCTCTTCACA GTCGAGATTGCAGTGTTCAAAGGCGACACCAAAGATCAT CGAAGAAGGTCCGATCACGGTGGCCCCTCCTGAGACAGTC AAACAACCTTGAGCAGGCAGCAAGAAGGCTTGCTAAGTGTG TTGGTTATGTTGGTGCTGCTACTGTTGAATATCTCTACAGT ATGGAACTGGTGACTACTATTTCTAGAACTGAACCCTCG ATTACAGGTTGAGCATCCTGTAAGTGAAGTGGATAGCTGAA GTCAGCTTGCCTGCGGCTCAAGTTTCAGTTGGTATGGGCAT ACCACTATGGCAAATTCCAGAAATCAGAAGATTTTATGGA AAGGAGCATGGTGGAGGATATGATGCTTGGAGGAAGACA TCACTTTCTGCAAGTCCTTTTGACTTTGACAAAGCAGAGTC TACAAGGCCAAGAGGTCATTGTGTAGCTGTTTCGTGTGACG AGTGAAGATCCAGATGATGGCTTCAAGCCCACCAAGTGGCA AAGTGCAGGAGCTAAATTTTAAAAGCAAGCCTAATGTGTG GGCATACTTCTCTGTAAAGTCTGGTGGTGGCATCCATGAAT TTTCTGATTCTCAATTTGGACATGTTTTTGCATTTGGGGAAT CTAGAGCCTTGGCGATAGCTAACATGGTTCTTGGACTGAA GGAGATCCAAATTCGTGGGGAAATTCGAACAAATGTTGAT TACACAATTGATCTATTAAATGCATCAGAATACAGAGACAA CAAAATCCCACTGGTTGGCTGGATAGCAGAATAGCAATG AGGGTCAGAGCTGAGAGGCCTCCATGGTACCTTTCAGTTG TTGGAGGAGCTCTTTATAAAGCAACAACTAGCAGTGCTGC CATTGTTTCCGAATATGTTGGTTATCTTGGTAAAGGTCAA TCCACCAAAGATTGAAATGGTTCGAGGTGGACCTGGTAG

				TTATAAATTA AAAAATGAATGGTTCAGAGATTGAAGCTGAA ATTCATACTCTCCGTGATGGTGGACTTCTGATGCAGCTAGT TTCAGTGGCAAAGCAAGCATTCCAATATGCTAAGCCTGTTA ACAGTATTGATGCTGCTGTAAAATTGCCCCGTATGAATTC CAGTCTTCTTCATACTCTATTTTTCTTAATAAGATAATGTAC CGACAAC TTGATGATGGAAGCTTTTTGGATGGAAACAGCC ATGTGATATATGCTGAAGAGGAGGCTGCTGGTACACGCCT TCTTATCGATGGAAGGACTTGCTTGTTACAGAATGATCATG ATCCATCGAAATTGATTGCGGAGACACCATGCAAAC TTCTT CGCTACTTGATTGCTGATGGAGAGCATCTTGATGCTGATGC ACCATATGCAGAGGT CGAAGTAATGAAGATGTGCATGCCC CTTTTGTTACCTGCTTCTGGAGTTATTCATTTTGTGATGTCT GAAGGTCAGGCTATGCAGGCTGGTGACCTCATAGCAAGG CTCGACTTAGACGATCCATCTGCTGTAAGAAGAGCTGAAC CATTCAATGGTACATTCCCTAAAGTAGGTCCTCCC ACTGCA GTTTCTGACAGAGTTCACCAGAGATGTGCTGCAAGTTTGA ATGCTGCACGCATGATTCTTG CAGGATATGAACATAATATT AATGAAGTTGTTCAAGAGTTACTACATTGTTTGGATAGTCC GGAGCTTCCTTTTCTACAGTGGCAGGAAAGTATGTCTGTAT TGGCAACTCGCCTGCCGAAAGAACTTAAAAATGAGTTGGA TTCTAAATACAAAGTATTTGAAACAAACTCAAACGTTCAAA AGAATGTGGAATTTCTGCCAAGCTTCTGAGTGGAGTTATT GAGAGCTATCTCTCATCTTGTAGTGAGAAAGATAAGGCGG CACAGGAAAGGCTTGTGGAACCACTTCTGAGCCTTGCGAA GTCATACGAAGGTGGAAGAGAAAGCCATGCTCGTGTAATT GTGCATTCTCTTTTGAAGAGTACTTATCTGTTGAAGAGTT ATTCAGTGATAGCATT CAGGCCGATGTCATAGAACGCCTAC GACTTCAATACCAGAAGGATCTTCTGAAAGTTGTAGACATA GTGCTGTCTCATCAGGGTGTTAGAAGTAAAAATAAGCTGA TACTGAGGTTGATGGAAGCATTGGTCTATCCTAATCCTGCT GCCTATCGGGAACAACTGATTGCTTCTCTGCTCTTAACCA TACCACTTACTCCGAGTTAGCATTGAAAGCCAGTCAACTCC TTGAACAAACTAAATTGAGTGAGCTTCGAACAAGCATTGC CAGAAGCCTTTCCGAGCTAGAAATGTTTACAGAAGAAGGT GAACGTCTATCTACACCGAGAAGGAAAAGTGCTATCAATG AGAGGATGGAGGATCTTGTAAGTGCTACGCTGGCCGTTGA AGATGCACTTGTGTCTTTGTTTGATCACACTGATCCA ACTG TTCAGAGACGAGTGATGGAAACATATGTCCGAAGATTGTA CCAGCCCTACCTTGTGAAGGATAGTGTCCGAATGCAGTGG CACCGTTCTGGTTTGATCGCGACATGGGAATTCACCGAAG AACATATTGAGAAAAAGAATGATTCTTCTACACAAGATAA GTCATTTATGGAGAAACATTGTCAAAGAGATGGGGAGCT ATGGTTATCGTCAAATCTCTCCAGTTTCTTCCAGCAGCAATT AGTGCAGCATTGAAGGAAACCAGTCATCTGT CATCTGATA CTGATCATGATACAGTATCTAATGGGCTTCCTCAACATGCT AGTCAAGGCAATATGCTTCATGTTGCATTGGTTGGCATTAA CAATCAAATGAGTACACTTCAGGATAGTGGAGATGAGGAT CAGGCTCAGGAGAGGATACACAAGCTTGCCAAGATTCTAA
--	--	--	--	--

				AAGATAACAAGGTAGCGACTGAACTTTCCAATGCTGGAGT CCGAGTTGTTAGCTGTATTATACAAAGAGATGAAGGACGA ACACCTATGCGTCACTCCTTCCATTGGTCTGCCGATAAGCA ATGCTATGAAGAAGAACCCTTGCTTCGTCATCTGGAACCTC CTCTGTCTACTTTCCTTGAATTGGATAAGCTGAAAGGCTAC AAAAATATACAATACACACCATCACGGGATCGCCAGTGGC ATATGTACACAGTTCAAGAACTAAACCACTTAATCAGAG GATGTTTCTGAGGACCCTTGTCAGACAACCAAGGATAAAT AATGGATTTTCATCAAACCAGCTTCCCGAATTAGAACTAG ACATGATTTATCCTTTACATCAGTCAGCTTGTTGAGATCTTT GATGGCAGCATTGGAAGAGTTAGAACTACATGTCCATAGC GAAACAATCAGATCTGATCATTCTCACATGTATCTCTGCAT ATTACAAGAACAACAACCTCTCCGATCTTTTACCTCGTTTACG GTAATGTTGATCCTGATGCCTATCAGAATGAAAGTCAAGTG TCCCTGCTTTTAAAAGATATGGCTGTCAGGATTCATGAGAT AGTTGGTGTAAGGATGCATCGTCTTACTGTTATTGAGTGG GAGGTAAAGCTCTGGTTGGGTTCTGATGGTGTTGCTGGTG GTTCTTGGAGGGTTGTGGTGACAAATGTTACTGGACGTAC ATGTAATGTCCATATTTACCGAGAATTGGAGGACAGCAAA TCACATGAAGTGGTCTATCACTCTGCAGCTTCAGTCACAGG ACCTCTCCATGGTATGCCGTTGATTGCTAGATATCAGCCAC TTAGTGTTATTGATAAAAAACGATGGGTGGCAAGAAGGAG CAACACTACTTATTGCTATGACTTTCCACTGGCGTTTGAGA CAGCACTGAAGCAGTCATGGGCTTCTTATAGTGATACTAAA GCACCAGAAAGCAAAGCTCTTCTCCAAGTTCAAGAACTTAT GTTTGTTGACAAAAAGGGATCATGGGGTACTCCTGTTGAA CCTGTATGCTGCCCACCTGGTCTCAGTGATATTGGCATGGT TGCTTGGTCAATGGAAATGTACACACCAGAATTTCCCGAA GGAAGGAAGATTGTTGTTGTAGCCAATGATTTGACTTTCA AAGCAGGCTCCTTTGGGCCTCGTGAAGATGCATTTTCCAT GCTGTAACCAATTATGCATGTGATAAGAGGCTCCCTCTAAT CTATTTGGCAGCAAATTCTGGCGCCAGGATTGGTGCTGCT GAAGAGGTCAAGTCTTGCTTTAAGGTTGGATGGTCTGATG AGTCGAGTCCAGAACGTGGTTTTTCAGTATGTGTATCTGACA CAGGAGGACTATAACCGTATTGGTTCATCTGTTATTGCACA TGAATGAAGCTTGAAAGTGGTGAGATCAGATGGGTGATC GACACAATTGTTGGCAAAGATGATGACTTGGGTGTTGAGA ACCTCACTGGCAGTGGTGCAATTGCCGGTGCTTATTCCAG GGCTTATAACGAGGTATTTACTCTTACATATGTGACTGGAC GTACTGTAGGAATCGGAGCCTATCTTGCTCGGCTTGGCAT GAGGTGTATCCAGAGGCTAGACCAGCCTATAATCCTAACA GGGTTTTCTACACTCAACAAGTTGCTTGGCCGTGAGGTGTA CAGCTCACACATGCAACTAGGTGGCCCGAAGATCATGGCT ACAAATGGTGTTGTTTATCTGACGGTATCAGATGATCTTGA GGGCGTTTCTGCTATTCTTAAGTGGCTTAGTTACGTACCAC CCTATGTCGGTGGGCCACTTCCAATAATAAAATCCTTGGAT CCCCAGAAAGGCCAGTGGAGTATTTTCTGAAAATTCATG TGATCCACGGGCCGCAATTTGCGGCATTGATGATGGCAAT
--	--	--	--	---

				GGCAAGTGGTTAGGTGGTATGTTTGATAAAGATAGTTTTC CGGAGACATTAGAAGGTTGGGCAAAGACGGTGGTCACCG GAAGAGCAAAGTTGGGTGGAATTCCAGTAGGAGTTATAG CTGTCGAGACACAGACTGTGATGCAAGTCATTCCTGCAGA TCCTGGTCAGCTTGATTCCCATGAACGTGTTGTCCCACAAG CTGGTCAAGTTTGGTTCCTGATTCTGCCACCAAAACGGCA CAAGCATTATTAGACTTCAATCGTGAAGAATTGCCACTTTT CATACTAGCCAACTGGAGAGGATTCTCAGGCGGACAGAGA GATCTCTTCGAAGGTATACTTCAGGCTGGTTCACAATCGT CGAAAACCTTAAGGACATATAAGCAGCCTGTATTTACCTACA TCCAATGGCCGGGGAGCTTCGTGGTGGTGCATGGGTTGT GGTGGACAGCAAAATCAACCCGGATCACATCGAGATGTAT GCCGAAAGAACAGCAAGGGGCAACGTACTTGAGCCCGAA GGAATGATTGAGATTAAGTTCAGAACTAAAGAACTTCTCG AGTGCATGGGTAGACTTGATCCTGAGCTAATCAGTTTGAA AACAAAGCTTAGGGAGTTGAAGGCAGCTGGACCTTCCAGA GATGTGGACGTCCTCCAGAAAAGTGTAACGGCTAGAGAG AAGCAGTTATTGCCTGTATATACACAAATTGCTATAAAGTT TGCAGAGTTGCACGATACATCCTTGCGAATGGCTGCCAAA GGTGTGATCAAGAAAGTGGTAGACTGGGAGAACTCCCGTT CTTTCTTCTACAAAAGGTTAAACAGGAGAGTTTCCGAGGAT GTCCTTGCAAAAACCTGTTAGAGATGCTGCTGGGGAGCAGT TGTCGTACAAGTCTGCTATTGAACTGCTTAAGCAGTGGTTT TCATCTTCCGACAATGTGGACGTTGGAAAATGGGAGGAAG ACGATGCTTTCCTTGCCTGGAAAGACAACCCTAAAAATTAT GCCAAGTATCTTGAAGAGCTACGAGTTCAGAAGATATTGC AGCAGCTCTCAGCTCTTGGTGAATCATCTTCGGATTTGCGA GTATTGCCTCAATGTCTTGCTACAGTCCTTAGCAAGGGCAG AATAACAACTCAAGCGAATCGGAGAAGAGCAGGACCGA GCACGAGATCTGGTCGACTGAGCTTGAGTGGGCCAAGCTT AAGCTTGCGATGGAGAAGAAGTGCGCCAGAGAAGAGGG GCACACCTGGATAAGGAAGGCGAGATACACGAGCATGAC CAAATCGAAAATGAGCTGGAGGGGAAGGGAGGAGGAGA ATAAGGGAGACATGAGAGGAGGGGAAGGATAA
63	Commelina diffusa	gDNA Contig	14748	AAAAAAAAAAAAAAAAACAAAGATCTTATGATAGTCTGAAAA CAAACCTTGACCAGTGTGATTTTATGTTAAGTGTATTTACCT ATCTTTCAATTGACTTTTCAGGTTTACAATGACGATGAAGT GAGAGCTCTCTTCAAACAAGTGCAAGGAGAAGTTCCAGGA TCTCCAATATTTATAATGAAAGTGGCATCACAGGTGAGATA AATGTATTTTTAAAGCTTCAGTTATGTCATGAATTTATATGG CCCTGCATTAACCTGAATCTAGACTATGCCCAATATGAAATT ATTGCAGGTTACTTTAAGCAGAATATATGTTTGACAGTAAG TAGGCTGACTTAGTACTGAACAATTGAGTGTATCAATGCAT GCCCAATATAATAGTGTGTTTCATTTTCAGGATAAAAAGTGA GATGTAGTTTTTCGGATTCAACATATGCATTCTTTTTCAACCT TGATGTCATCAGTCAATGCATAGTAGTGCATGTACTTGACT TTGTGTATGTAATTATTATTCTTTGGTAGTTGCAATTAAAG GATGCATTGATACACCCAATTGTATCATCAGTTATTTTGCA

				ATTCATATTCCACCCTTCTGTTTTTAGGAAATTCTAGAACT TTAACTTGGAAGCTCTAGAATACCATATCTTGCTTTATATC ATGGCAGTTACACTGAAGCTTTATGTTACATGTGCATTTCAT TTTAACGCTCCAATATTGTTATCCTTTTATTTCTCTAGAGT CGTCACTTGGAAGTTCAGTTGCTTTGTGATGAATATGGCAA TGTTGCTGCTCTTCACAGTCGAGATTGCAGTGTTCAAAGGC GACACCAAAAGGTAAACTTTAGTAAAGCATCTATATAATTA TGTTATTTGTAACCTTTTCATGCTTACCTTTATATTTTCATAGAC CTGAACCATGTCTATGAATATATTTGTGTGCTGTTATGAGC AGGTTATTTTTCTCCAGATCATGTATCTTTATCCTGAACTCT TGTGGACTTATCTTGAATTAACATTTTGTAATATTTCAAGA CTTTCTTCATGATGCTTATTTATTACCCAACAGATCATCGAA GAAGGTCCGATCACGGTGGCCCCTCCTGAGACAGTCAAAC AACTTGAGCAGGCAGCAAGAAGGCTTGCTAAGTGTGTTGG TTATGTTGGTGCTGCTACTGTTGAATATCTCTACAGTATGG AACTGGTGACTACTATTTCTAGAACTGAACCCTCGATTA CAGGTTTGTCTTTGCTTGTTGGCTGAAGATTCATTGTTTCATC AGAACTTTGTCTTCTAAGTCTTGGTCCTTTTCAGGTTGAGC ATCCTGTAAGTGAAGTGGATAGCTGAAGTCAGCTTGCCTGC GGCTCAAGTTTCAGTTGGTATGGGCATACCACTATGGCAA ATTCCAGGTATGAACTTGTAAGGGAATTTTGCATAATTAAT GCAAAAAGCTTAAGAGAAAAAGATGTAAGTTTCTTGAT GCTAACTCTAGTTATAATTTGGTTTCTTTCTTTCAGAAATC AGAAGATTTTATGGAAAGGAGCATGGTGGAGGATATGAT GCTTGGAGGAAGACATCACTTTCTGCAAGTCCTTTTGACTT TGACAAAGCAGAGTCTACAAGGCCAAGAGGTCATTGTGTA GCTGTTTCGTGTGACGAGTGAAGATCCAGATGATGGCTTCA AGCCCACCAAGTGGCAAAGTGCAGGTAAATGTTGTTGAATA TAGGATATTTAGGCTTAATATTTTCTGCAGGGACACTGACC AACTTTACTGAACTGGGACTTAAATATTTTCAGGAGCTAAA TTTAAAAGCAAGCCTAATGTGTGGGCATACTTCTCTGTTA AGGTATGTTGTTAAGTTTTTCTGGGCTGGCTGCCCTTCTTT GGGTTATTTCTTTGATTTCTATCAATTAATGTACAACAACAA AAAAAATCTTTTAAGAGTTAATATAAACAATGTTGGAAAC AAATGTTCTGGCTAAGGAGATCAAAATATAAACTTTTGTGG AAAAAAGTTGTGTAGTTTGCAATATGAATACAGTGTGATA CTTAGTTGATTGTGTCTTCATTTTTGTCCTAATTAAATTATAT TTTGTAATTATTAGACTAAATGTGCTTATACAGACAAATAT TTTGTTTGCAGTCTGGTGGTGGCATCCATGAATTTTCTGAT TCTCAATTTGGTATCTCCTTGACAATGAAAGAAGTTAAATT CTTTTGAATGCTGTGAAAACTCTTCTTAATATTTCTATTC TTCTCAGGACATGTTTTTGCATTTGGGGAATCTAGAGCCTT GGCGATAGCTAACATGGTTCTTGGACTGAAGGAGATCCAA ATTCGTGGGGAAATTCGAACAAATGTTGATTACACAATTG ATCTATTAAATGTAAGCTCTTGATCTTCTTGTTACCTCTAAT CCAACTTATTGCAATTGCACGTCTTTGTTCTCATCCGCTGCC TCACAGGCATCAGAATACAGAGACAACAAAATCCCACTG GTTGGCTGGATAGCAGAATAGCAATGAGGGTCAGAGCTG
--	--	--	--	---

				AGAGGCCTCCATGGTACCTTTCAGTTGTTGGAGGAGCTCTT TATGTAAGAATCGAAGCATAATGTAATCTAGTTATAGTTCT GGTAGGTTAAGTTGTTATTTATATACTTGACTTATTTTGTGT CTTCAGAAAGCAACAAGTAGCAGTGCTGCCATTGTTTCCGA ATATGTTGGTTATCTTGGTAAAGGTCAAATCCCACCAAAGG TATAATGCATCCCAGCTGTTTATGTCGTATTTTATTTTCTTC GATTAGTTCATTAACAAGGAAAAGCAATGCAGCACATTTTC GCTGGTCAAACTCTTGTGACTCTGAATATTGAAGGGAGC AAATACACGGTAAACTTCACTATTTCCAAAAGTTTTCTATTCT TAATTTTCTTTCAAGAGACACTTCACCTAACTCCTTGCTGA ATGTTTCTTAGATTGAAATGGTTCGAGGTGGACCTGGTAG TTATAAATTAATAATGAATGGTTCAGAGATTGAAGCTGAA ATTCATACTCTCCGTGATGGTGGACTTCTGATGCAGGTAAA CTTTCTAAATCATCATGTTCCATTGTGTATTTTTTTTTATTTA AACAAATGACTAGCTAGTTTCAGTGGCAAAGCAAGCATTCC AATATGCTAAGCCTGTAAACAGTATTGATGCTGCTGTAAAA TTGCCCCGTATGGTCCATGAGAGTACAAATGGTATTACCAT AGTGATCTGATTGTTCAATTTGCATTTGATCTAACTTTCCAGA ATTTCCAGTCTTCTTCATACTCTATTTTTCTTAATAAGATAAT GTACCGACAACCTTGATGATGGAAGCTTTGTAAGTACCTGA AAATTTTTTAGGTATTGGTCTGATTTTCAGCACTAAGGTTTA TACCATAAACTTCAATACTAAGTGGTCAGTTAACTTTGGA TCTTGCACATCAGACTTGTCAGAACTGTTTTGTTTACAATC ATCCACAATTGGTTATGGGGTGATAATTATGGATGCTTTGT GATTGTTGGCCATCCTGCTGCTCAGAAATTATCTTGAACCTT TATTTGCCCCCAAATTTGAATCATCTTTTTTTTTGGGAATTCT CTTTAGTTTCTTTCTTTCTGCACCAATGTTTTTGTCTACAT GCCCATATTGACTGCACTTGTGCACAAGTGCACGTCTGCAC GTCTGCACGCATATATCACTCTAGGAATACAGTTGATATTC TCAATTCTCGATCTTGTCAATATGGTTAAAGTAATTTAGCAG TTCAGATCTTGAACATATTTAATTTCTAAAAGTCTATGAAAT TCATACAGTTGGATGGAAACAGCCATGTGATATATGCTGA AGAGGAGGCTGCTGGTACACGCCTTCTTATCGATGGAAGG ACTTGCTTGTTACAGGTAGAAACAAGTATATATTTTTCAA AATTTTTAGTTTCTTGAAGGAAATTAAATTTATTTATTATCT GCTAGTAGAATTAATGTAAGGGACCTTTTATGATGTTTTGA CATTATATATTGAAGGTTCTTTGATTTATTAATAAATGCATA AGATAGATAGATTGCAGTATTGCACCTTGCATCTTTCAAGT GCGCTTATGCTCAACATGCTTAAGGTGCTTACTGCTTAGAT TGCCCAGTGCTGCTCAAACTTGCATAGAACTGTGAAAACC ATTATTTCTTTTGTCTATCCCTAATGTGAAAGCTTCTGTGC GCCTGCTCCGGCCCTACTCTAATCTTCATTAGCTTCTTTGCA CTGATTTATGTGATATTTTCTTGGACTGTTTATGGTCCTTGC TAAGAGTTCCTAAGTATCTGATGTTTGTATGTTAATTTTT GCATTCCATTCTTTTTAGTTCTAAATGATTGTTTCTATCGG TCAAATAAATGCTGCAACTTAGTTATCAGTTGCACTCACC CTATTCAAATGAAATTTAAGGTACATTTACAAATGGGATT AACACATTAAAAACACTTTATGTGTTAACATGCTACTATTA
--	--	--	--	--

				GAAATCCAGATATGTTATTTTCAGAATCATAAAGCAACGTTA GATGGCTTCATAAACTGTGAATAAGTGGTAAAGAATTCCTT CCTAGATATTATTGAAGAAAGTTTCTCTTGAACAAGTTACC TTAAATAATTAATCATAACTGGTTTTGTCTTCAGAATGATCA TGATCCATCGAAATTGATTGCGGAGACACCATGCAAACCTC TTCGCTACTTGATTGCTGATGGAGAGCATCTTGATGCTGAT GCACCATATGCAGAGGTCGAAGTAATGAAGATGTGCATGC CCCTTTTGTTACCTGCTTCTGGAGTTATTCATTTTGTGATGT CTGAAGGTCAGGCTATGCAGGTAAGTAAACCTTGTAAGA TTAGAAAGAAAGTTTCTCTTGTGTTTTCTCATAAACTACATA GAATCTTGTTTTGCAGGCTGGTGACCTCATAGCAAGGCTC GACTTAGACGATCCATCTGCTGTAAGAAGAGCTGAACCAT TCAATGGTACATTCCCTAAAGTAGGTCCTCCCCTGCAGTT TCTGACAGAGTTCACCAGAGATGTGCTGCAAGTTTGAATG CTGCACGCATGATTCTTGCAAGGATATGAACATAATATTAAT GAAGTAAGGGCTAACGATTAACTTTTTTTTTATTCTTTGTT ATTTTAATTAATTCAAAGTGCTATCTACTTTTATTTCTTTAT ACTTTAAGTGGCATTCTATTAATACTAAACATATGTTTTTA CTACCCTTGCCAATGTTGATTAGACCAAATGGGTTTAAA CTCTTTTATGATGCATTCTAATAATCTTTATTTGCTGAACCTT TTAGTTACTTTCAAATTTATGTAGAGATTAAAGCTTTTATT CGAAAACGCCACCATAACATACACCTCATCCTTGGAATGG AATGTATACAATTTGCTGATTTTAGTTCCATCAAATCCCAGT TTAGTCACAAGGAATCATGCTGATAAGATGCTAAATTTGTG CTACCATGTGCAGTGATCCATGTCTGCAGCTTTGTATATAT GCCTTGTGGAGATTAGACGTCCATTTGTCTTATCTTTTAGT TTCCCCACCTTCAACTTTGGTGACCGCTGCCCTTAATGTTTA TTTTAAGGAGAAGCATCATGCTTTTGAGAAATTGGTTGCTT CTATCAGATGACTGAACACCTTTTTATTTTATATATCTTGT TCTAATCATGCTAAGTTTCATTGAATTTCTCTTTATGTTTTCC AATTTTAACTGATGGTTATGCTATGCCAAAGTGACTAGGC TCTATTGTAATTTTAACTGCAAAGGGACTATTTGATGATTG ACACTTTACTTTTTGTTTTAATTCTTTTAGTTTACCATTTTAT ATACTTGTTACTTATATGAACTGCAACTTGCACTACTGTATA CAATTTTAAAATTGTTTCTTTCCTTTATGCATATACTGGTTT GCATTTTTTTCTCTAACGTCCCAAGTATAAATAGGTTGTTCA AGAGTTACTACATTGTTTGGATAGTCCGGAGCTTCCTTTTC TACAGTGGCAGGAAAGTATGTCTGTATTGGCAACTCGCCT GCCGAAAGAACTTAAAAATGAGGTTTGTGCATAGTTCTTA ATTTTTTGTGAGAAGCACATAGTCTAGTTTCCAGTTGGACA GTTGGATTGTACATTTCCCAAATTTAATAATTTTATGTGCAA TTTCTTATTTGATACAGTTGGATTCTAAATACAAAGTATTTG AAACAACTCAAACGTTCAAAGAATGTGGAATTTCTGCC AAGCTTCTGAGTGGAGTTATTGAGGTTAGTATGTTTTAGTA TGAATATCACTCAAATAATAAGGTTTTAAACTTTATTTCT CGATCTGCAGAGCTATCTCTCATCTTGTAGTGAGAAAGATA AGGCGGCACAGGAAAGGCTTGTGGAACCACTTCTGAGCCT TGCGAAGTCATACGAAGGTGGAAGAGAAAGCCATGCTCG
--	--	--	--	---

				TGTAATTGTGCATTCTCTTTTTGAAGAGTACTTATCTGTTGA AGAGTTATTCAGTGATAGCATTGAGGTGATTGTTTATCCGA AGTTCATTCAAACCTTTTTCGACTAACTCTTCCATCAAAATAA ATACTAAAGGAACAAAACCTGATTCTCAATGTTTTTGAAAGT TTCGTTGCTCCAGCTAGATTTTCCAAAGGCCTTAACCATGC ATTTTTCTTGTATAGGCCGATGTCATAGAACGCCTACGACT TCAATACCAGAAGGATCTTCTGAAAGTTGTAGACATAGTG CTGTCTCATCAGGTATATTTGCAACGTCTGAAGTTGTTTTAT TTACTCCATAGAATTGACCAATTCTCCTTAAAGTAACATGA ATGCTGATAATTCACCTTTTAGTTTCTCTGTGGATGAGATA CATCTCGTATGCTAGTTTTTCCATTAACAATATGCCGTTTTT GTTTACTAAAGGGTGTTAGAAGTAAAAATAAGCTGATACT GAGGTTGATGGAAGCATTGGTCTATCCTAATCCTGCTGCCT ATCGGGAACAACTGATTCGCTTCTCTGCTCTTAACCATAACC ACTTACTCCGAGGTCAATAATCTTACTGGATATCTTGCACC TATCCCTTCATGTTTGTAATTCTTTTGCTCACATTGGCCTATC CTTACTCGTGCTTGGTCAATATGGTTCCTGCAGTTAGCATT GAAAGCCAGTCAACTCCTTGAACAACTAAATTGAGTGAG CTTCGAACAAGCATTGCCAGAAGCCTTCCGAGCTAGAAAT GTTTACAGAAGAAGGTGAACGTCTATCTACACCGAGAAGG AAAAGTGCTATCAATGAGAGGATGGAGGATCTTGTAAGTG CTACGCTGGCCGTTGAAGATGCACTTGTGTCTTTGTTTGAT CACACTGATCCAACCTGTTGAGAGACGAGTGATGGAAACAT ATGTCCGAAGATTGTACCAGGTACCAAACCTGAAGTAATAT GGTAACAAACATGTAGCTGTTAAATATTTATCTGACACTGC TTTTTTCTCAGCCCTACCTTGTGAAGGATAGTGTCCGAATG CAGTGGCACCGTTCTGGTTTGATCGCGACATGGGAATTCA CCGAAGAACATATTGAGAAAAAGAATGATTCTTCTACACA AGATAAGTCATTTATGGAGAAACATTGTCAAAGAGATGG GGAGCTATGGTTATCGTCAAATCTCTCCAGTTTCTTCCAGC AGCAATTAGTGCAGCATTGAAGGAAACCAGTCATCTGTCA TCTGATACTGATCATGATACAGTATCTAATGGGCTTCCTCA ACATGCTAGTCAAGGCAATATGCTTCATGTTGCATTGGTTG GCATTAACAATCAAATGAGTACACTTCAGGATAGGTAACCT AATTATTCTTGAATATTTCCATCATATGGTATGTTTGTGGTA ATTTGATCATTTAGTTATGAAAGGTGCAGTCTTGTGCTTAT CTTTGAATCTTTTAAATGGACAAATGTTCTTATCATATTA CAGTGGAGATGAGGATCAGGCTCAGGAGAGGATACACAA GCTTGCCAAGATTCTAAAAGATAACAAGGTAGCGACTGAA CTTTCCAATGCTGGAGTCCGAGTTGTTAGCTGTATTATACA AAGAGATGAAGGACGAACACCTATGCGTCACTCCTTCCATT GGTCTGCCGATAAGCAATGCTATGAAGAAGAACCCTTGCT TCGTCATCTGGAACCTCCTCTGTCTACTTTCCTTGAATTGGT TGGTGAATGTTTTAACTTATTTTATTCACATCTTTATTGTA ATTCCCTTTCTCTGATTAATGCCATTTGTTATTGATTCCATTG CAGGATAAGCTGAAAGGCTACAAAAATATACAATACACAC CATCACGGGATCGCCAGTGGCATATGTACACAGTTCAAGA AACTAAACCACTTAATCAGAGGATGTTTCTGAGGACCCTTG
--	--	--	--	---

				TCAGACAACCAAGGATAAATAATGGATTTTCATCAAACCA GCTTCCCGAATTAGAACTAGACATGATTTATCCTTTACAT CAGTCAGCTTGTTGAGATCTTTGATGGCAGCATTGGAAGA GTTAGAACTACATGTCCATAGCGAAACAATCAGATCTGATC ATTCTCACATGTATCTCTGCATATTACAAGAACAACAACCTCT CCGATCTTTTACCTCGTTCAGGGTAAGTCTTGTTGTCTAGTT AGTTTGTTGTATTCTTCTGAAAAATGTTTGTTGTAGATTA AAAAAAAAAATGTAGTGTTTTTGGCTAAACTGATTTCTCCTT TGCTTTGGCTAAAACATTTTTTGGAAAGTTTCCATGTTTTTGG AAATTATTCTTTAAGGGCTGTTTGGATACCTATAATGAGGG TTATAATGTGGATACTTGTAGTTAGTGATTTTAGTGAGTT GGAAAGTAAACATAGGTGGTAAACTACATCTCAACATCT CCAATTTGGTGTTGTTGCTATGATGTAGTCACATGACGTG CCAATTTGGTGAGTTCCCAAATTTTTTTTAGGTAAAATA TATTTACAAATATCGCACAAGTTTATTCATCTATTAGTATTT CGTGTAAGATATCTATAAAATTAAGCAAACAATGAAGTT GTAGTTCTTTCAACTATAGCTACATGCACTATCAACTAGA ACTACAAGCATCCATGTCACAATGTTCAATTAAGTTAAATAA TATAATTTTAAAATAATTTTTATTTATTTATTAATAATAGTC ATGAGGAGACTTTCGAAAATAAATTTTCAGAACAAACAAAC GCATTTTTTATTCCAAAATATCATATTGTTGCTTTTAGATAA CTATTTACTGAGAATGAATTTGAACATTGTTTCAAGAAACC CTTCAAAACAAGCAAAGTAAATTTGTGTTCTCATCTTCGTG CTCTAGATACTTTGTTCACTTACTTCTTTCGTTAGTCATTTTT TGAAGTTCTAACTAACTCAAGCATTCAATTTGTCCAGTACT CTTGATCCTGATGCCTATCAGAATGAAAGTCAAGTGTCCCT GCTTTTAAAAGATATGGCTGTCAGGATTCATGAGATAGTT GGTGTAAGGATGCATCGTCTTACTGTTATTGAGTGGGAGG TAAAGCTCTGGTTGGGTCTGATGGTGTTGCTGGTGGTTCT TGGAGGGTTGTGGTGACAAATGTTACTGGACGTACATGTA ATGTCCATGTAAGTGCGATTGATTCACCTTTGTCTAAGACTT TACTACTATACTTGCATGGTTAGACATAATATTTCACTTCCT TATGTAGGTAACGTTTTCTAGCATAGCTAATTGTTTGACTA GGACTATATTAATAATTGTAAAAATTGAACTTTTGCCATT AGAGCAGTTAATTAATAGATATTGCTCTAGCCCGTAATTTT GCTTTCATTTGATTGTAAAATACTCAGTAAGTTTTTGTCTCA GATTTACCGAGAATTGGAGGACAGCAAATCACATGAAGTG GTCTATCACTCTGCAGCTTCAGTCACAGGACCTCTCCATGG TATGCCGTTGATTGCTAGATATCAGCCACTTAGTGTTATTG ATAAAAAACGATGGGTGGCAAGAAGGAGCAACACTACTT ATTGCTATGACTTTCCACTGGTATAGCTCCCAATTCCTGATT GATATACTCCCAGTTTTCTTGTTTTGATACTTCAATACCTTA CTAATTAATATGTGCAGGCGTTTGAGACAGCACTGAAGCA GTCATGGGCTTCTTATAGTGATACTAAAGCACCAGAAAGC AAAGCTCTTCTCCAAGTTCAAGAACTTATGTTTGTTGACAA AAAGGGATCATGGGGTACTCCTGTTGAACCTGTATGCTGC CCACCTGGTCTCAGTGATATTGGCATGGTTGCTTGGTCAAT GGAAATGTACACACCAGAATTTCCCGAAGGAAGGAAGATT
--	--	--	--	--

				GTTGTTGTAGCCAATGATTTGACTTTCAAAGCAGGCTCCTT TGGGCCTCGTGAAGATGCATTTTTCCATGCTGTAACCAATT ATGCATGTGATAAGAGGCTCCCTCTAATCTATTTGGCAGCA AATTCTGGCGCCAGGATTGGTGCTGCTGAAGAGGTCAAGT CTTGCTTTAAGGTTGGATGGTCTGATGAGTCGAGTCCAGA ACGTGGTTTTTCAGTATGTGTATCTGACACAGGAGGACTAT AACCGTATTGGTTCATCTGTTATTGCACATGAACTGAAGCT TGAAAGTGGTGAGATCAGATGGGTGATCGACACAATTGTT GGCAAAGATGATGACTTGGGTGTTGAGAACCTCACTGGCA GTGGTGCAATTGCCGGTGCTTATTCCAGGGCTTATAACGA GGTATTTACTCTTACATATGTGACTGGACGTACTGTAGGAA TCGGAGCCTATCTTGCTCGGCTTGGCATGAGGTGTATCCA GAGGCTAGACCAGCCTATAATCCTAACAGGGTTTTCTACAC TCAACAAGTTGCTTGGCCGTGAGGTGTACAGCTCACACAT GCAACTAGGTGGCCCGAAGATCATGGCTACAAATGGTGTT GTTTCATCTGACGGTATCAGATGATCTTGAGGGCGTTTCTGC TATTCTTAAGTGGCTTAGTTACGTACCACCCTATGTCGGTG GGCCACTTCCAATAATAAAATCCTTGGATCCCCCAGAAAGG CCAGTGGAGTATTTTCCTGAAAATTCATGTGATCCACGGGC CGCAATTTGCGGCATTGATGATGGCAATGGCAAGTGGTTA GGTGGTATGTTTGATAAAGATAGTTTTACGGAGACATTAG AAGGTTGGGCAAAGACGGTGGTCACCGGAAGAGCAAAGT TGGGTGGAATTCCAGTAGGAGTTATAGCTGTCGAGACACA GACTGTGATGCAAGTCATTCCTGCAGATCCTGGTCAGCTTG ATTCCCATGAACGTGTTGTCCCAAGCTGGTCAAGTTTGG TTCCCTGATTCTGCCACCAAAACGGCACAAGCATTATTAGA CTTCAATCGTGAAGAATTGCCACTTTTCATACTAGCCAACT GGAGAGGATTCTCAGGCGGACAGAGAGATCTCTTCGAAG GTATACTTCAGGCTGGTTCCACAATCGTCGAAAACCTTAAGG ACATATAAGCAGCCTGTATTTACCTACATCCCAATGGCCGG GGAGCTTCGTGGTGGTGCATGGGTTGTGGTGGACAGCAA AATCAACCCGGATCACATCGAGATGTATGCCGAAAGAACA GCAAGGGGCAACGTACTTGAGCCCGAAGGAATGATTGAG ATTAAGTTCAGAACTAAAGAACTTCTCGAGTGCATGGGTA GACTTGATCCTGAGCTAATCAGTTTGAAAACAAAGCTTAG GGAGTTGAAGGCAGCTGGACCTTCCAGAGATGTGGACGT CCTCCAGAAAAGTGTAACGGCTAGAGAGAAGCAGTTATTG CCTGTATATACACAAATTGCTATAAAGTTTGCAGAGTTGCA CGATACATCCTTGCGAATGGCTGCCAAAGGTGTGATCAAG AAAGTGGTAGACTGGGAGAACTCCCGTTCTTTCTTCTACAA AAGGTTAAACAGGAGAGTTTCCGAGGATGTCCTTGCAAAA ACTGTTAGAGATGCTGCTGGGGAGCAGTTGTCGTACAAGT CTGCTATTGAACTGCTTAAGCAGTGGTTTTTCATCTTCCGAC AATGTGGACGTTGGAAAATGGGAGGAAGACGATGCTTTCC TTGCCTGGAAAGACAACCCTAAAAATTATGCCAAGTATCTT GAAGAGCTACGAGTTCAGAAGATATTGCAGCAGCTCTCAG CTCTTGGTGAATCATCTTCGGATTTGCGAGTATTGCCTCAA TGTCTTGCTACAGTCCTTAGCAAGGTACAGTTTCTTTCATTG
--	--	--	--	---

				TGCATTCAATTTCTCTTTTCAAAATATAGACATATAGTTAGA TTTTACTTAGTTTTGCATCATTTTCCCTGCAACATGGTAAA CATTTCTCTATAAGTATTTTAATATCACTGCAAAATATTCAA TAATGTTCCCTGAACTTGTTGCGAGCGCCTTGATTAGTAGCT ACACTAGCATTGCGATCTCACAGTAAAAGCTATCATTCTCT TTGAAATAATTCTTTTAACTCTGGGTAGATATTTTTCTTCT CTCAACTATATCTTGAAAATTTGTGCGATAAATTCCTAACAT GATTATTGCTTGGCATTGATGCAGATGGACTCGTCTAGTAG AGCTGATCTTGTCAAAGAAATCAAAGATATCCTTGTTGAT CAATTTGACCTTATATATGGTGCACCGCAACAAATTAATGT GATGAACATCCCAGTAATGCCTTCTCAAGACGTTGAACGCA AGCCAGTATATTATATCTTTTTTTTCCCGACAGAGTATCTA CAGCTCCTACCAATTTCAAGATATTTAATCATATTTTTCTT GCGTAGTTCATATAGAAACGACATTACTTCAGTTCACCTGT AGATAAGTTGAATGTTGTCAATCAAGCAGGATGTAGCAGT CCACAACATTTGTATTTTTATATTTTCGAGATTCAGCTGTAA GGAATAATGGCTGTATTATTTCTCTAGGAATGAAGAGTAC ACTTTATTGCCCAATAAAAGAAAGAAATGTCAGGGATTGTT TCAATGGAATTCCAACTGATCTCAACTACATTAGGCGTGG TTAAAAAAAACACTACACTACGTCTGTTGCCAAATATAGAAA AGTATTTTTAGGAATATTTAGGCTTTGTTTGGGAAACATAA TGACTTAATACAATAATTGTGTAAACACAAGTAATTAATTA CTATATTTGGATAACACTTTATAATAACAAAGTCTCTCACTAC AAATGTAATGTTTATTATCTCATAGGAGCAAAAAAAAAAAAA AAAACCTTAGGAGGTCGTGTGTAAATGTAATGTTTATTAT CTCATAGGAGGTCGTATTCATTACACAGACATATAATCCCA TCATAAGATATCTCTCATGTTTACTAAAAATTTTCATTTTAA AATTTAAACATAAATGTTATTACTAATAATATATACATTCTT TATTTATTATTTTTATTATATTACACGTATTTTAGCCAATGTT GTAAGTCACTACATTACAAATTTTGTAATGATTTAATTAC GTTGCAAATCATTTTATCCTTCCCAAATAAGGCAGAATCAC TTTGTCAATTCATGTGATTAAAAAAATAAGAGGTCAGAGAT AATTACTTGGACTTGATATTATAGTAATTTTGCATGATATCT TACCCATTCTATGATATTTAAACACTCATATTTGGACGTCAT GGGATCCTATGGAATAATGGAAATAACTCAATGCTCATGA ACTGGGCAAAAACAATTAGCTCTTACCTTTTCTTTTTTTCCC CTAACAAGATGATTCTATGATGTAAATAACTTTACTGATTTT TTTTTATTTGCTTAACACACTCTCAATCTATATGGTAATGGG CTAAAATCTTTTGCTCATGAGATTCAAATATTTCTCGCGAG ATTTGTTATTGCCAAACAGGTCTGTTCTTTTGTAAGTTACTT AAATAATCATAAACTTTAGATAAGACCAACTTAATTTAAGT TAATCAACATCATCAACTGAATATTAACCTTTACTAACACAAT GTCCGTAATGGCATGTTTTGCTCACTTGAAATAAAAAATTA AAAAGAATATATAAGTAGCATTGAAAATTAATACTACGTC CAATTAGAGTTAACATTATGACAACAATACGACAATATCCA AATTACCATCTTTGCTCCTCTGTCTCCAAAACTAATGTTAT TCATCTCGCTGCCCCCAACCATTGAACCAATTGATATTCTAA CCTTAATCAATCAATTCTCCCACTCTCACTGACAACCTGGACT
--	--	--	--	---

				CTGACCTCAGTTGGTGGCACCTCCGTCGTGGGCTTCTTCAC TCCTTACAACCTCTAATAACTCCTAGCTTAATTTTCAGTACAA AATCACAGTCCAAAATGTTGTATGGATAGCAAACAAAGTT AAACCCATAATCCAAGGGCAGAATAACAACTCAAGCGAA TCGGAGAAGAGCAGGACCGAGCACGAGATCTGGTCGACT GAGCTTGAGTGGGCCAAGCTTAAGCTTGCGATGGAGAAG AAGTGCGCCAGAGAAGAGGGGGCACACCTGGATAAGGAAG GCGAGATACACGAGCATGACCAAATCGAAAATGAGCTGG AGGGGAAGGGAGGAGGAGAATAAGGGAGACATGAGAGG AGGGGAAGGATAACAAGAGGGGAGA
64	Commelina diffusa	gDNA Contig	3209	CAAGTAATTATTATATAATTTTCACCCTATTCCATTTTATTTA TTTTAATTTATTGACTATAAAAGTTACATAATACTGTACTT TATTTTGTCTTACTTTTATTGAAGAAAAAACAGCCCTTCTCT CCCCTCACAAATAAATTAATAAACAATTAATTTCCAATATTA GAGAACCACAAAAGTAATTCCTTAATGACAATTTAAAAGA AAGAAATAAATACAACCAACCTCTAAATCACACACATATTC ATATATTTATACAAATAAAATAAATAGAGGGAGAGAGTAG TTGGCCATCAGCCCCACCTAACAAAAACAAGTCTAGAGTCA AAATTGGGACACGAAGATGTCATCTTCATTGTAAATCAAA TGTTAATTAAACCCCAAAAATAAAATGTAAGCACAAGATGT TTGAACAAGCACTTTGATTCCCAATTTTCACCTCAGGGGAT CAAAAAGGCACCATCTTGACAATTATATACACACACTCT ATACAACATTGTTGTGGTGGTAGTTGGCAGCTGTGGCTCT GAATTTCAATTCCTTTGTTTGCCCTTCAATTCCTGTTGCTG TTGTTGGTGAGGAGAAAGGAAGCTGGCGTCACGTGGTGC TGCTGTCCATACCATTAAAGGCCCTCGCCGTCTCCCCACCCC ATTGGTGCCCTTTTCCCCCTTTTAAATACTGCTTTTTTGGT GATTTGGTGAATGGTGTGGTGAAGAGTCGTCAAAATCCCG CCTTTTGCTGGGATTGTGCTCGTCTTAGCTCCCCTGAGCT GTTGGTTGTGTAAAGGTGCGATCTTGGTGCGTTTTGTTGG GTGAATTCGAGCTCTTTGTCGCTGTTTAGGGTTCAAGATTG CGCTTTTTTTTTTTTTGCCCTTGTTAGTGTTGGTAGTTGTTA GTCCACCGGCTGATTGAATTGTAGCTCTTGGCACTGTTTG TGTGAGTGATCTGCTTGCATCAGGGGACTACAAATTTTCAT TTAGTAGTGTTATGCTGGAATTTGGTTCTGCTGATTGGG TTATTGCGCCTGTGTTATTTGTCTTGTCGTCTTAAATTCT GTCTGTAGTTTAGTGTTGTAACGAGTGCTTCTCGCTTCTAG ACTTTGTTTGTATCTTCTGTGCTTGATTATTGTTACTATTAT TATTTATTTTATTTTGGTTAGTGAGTCAACCTATGGGGTT AGTAATAAGACATTGTTTCAGTTAGTTATGTGAATTGGTAA CTCTTAATCTCGTTTAGAAGATTGGTGAGTTAGTTTTTACCT GGTTCTGTACATTCGAATAGCTTTTACTGTTGATTTGCTGCA TTTTACCAAATTCTTTGTCGCTTTTTTGGTGTAAGCAAGA ATGAGAAAAATGATACTTGATTGAATTATGGGTTCCCAAAC CAAGTAATAATTTGGGAATTGCTTTCTGATAACTCTTTATTG GTGGAGCTTTGGTACTAGGATATATATGTATATATATGATT ATATCATATGGATAGCAACTGGGTAGTTGTTTCAGTTAGAAT CTTGGTCGTTAAAAGAAAAAAGAATGAATTGAATATTCATT

				TATTTGAGCCTATGAGGATAATTTGTTAACTGAAAATGGTT TTGTTTCGAGTGGTAGGGATGTCTAAGGAGCCATGTAGTTC GTTTAGTTTGTATTCTATTTTCATTCTTATAAAGAAATTTA ATTTATCATGAAAGCATTGGGACCAGTTGTATAAATAGTTC TCCTTTTTACTGCAAATGGCAGTTACATAAAGAATCTATTA CAAGAATATGCTTATTAGGAGCTGGTTTATATTTTCAGTTT GCACTTTTTCTGTGTTTACTAAAGAAACAAGTTATTCTTGTG CCTTTCTTACCTGACGTCAGAGAATGATATTTTCTTGAAAG TCAAATGTTGCTTATTATATATCCCGTCACTTTCGTGTATA TTGATGACACTGATTAAATATCTATGTAGAACGCCTGAAGC CCAGAAGGGAGCAGTTATGGCAGATGTCTGGCAAGATCAT GGGATTTTAAATGGGACAGTTCAAGTCAAACATGCAGCTA CAACGTCTGAAGTTGATGATTTCTGTTATGCACTTGGTGGA AAGAGACCTATTCGCAGCATATTGATTGCTAATAATGGAAT GGCTGCTGTCAAATTCATGCGTAGTATTAGAACCTGGGCTT ACGAAACATTTGGATCAGAAAAGGCAATTTTGTTGGTTGC GATGGCAACTCCAGAAGACTTGAGGATAAATGCCGAGCAC ATTAGAATTGCTGATCAATTTGTAGAGGTTCCCGGTGGAA CCAATAATAACAATTATGCAAATGTTCAACTCATTGTGGAG GTCAGTTTTGCTTACTTTTTGGCTGACATTACTTTGATTGAG CATTTTGATTGTTTCTTTTCTGTTTGTGCTGATTTTGACAAC ACACTTTGTGACAGCTGGCCGAAATAACACGTGTTTCTGCA GTTTGGCCTGGATGGGGCCATGCATCCGAGAATCCCGAAC TTCCAGATGCCCTGAATGCAAAGGGAATAATCTTTCTCGG GCCTCCAGCTGCGCCAATGTCAGCACTAGGTGATAAAATT GGTTCTTCTCTAATTGCTCAGGCAGCAGGTGTACCAACTCT TCCGTGGAGTGGCTCACATGTAATCTTACTTGCTAATTTGC AAATACATTATTTTCATATTTCTCATTCTTTCACCAAATTTAC ATGTGAAATTATCTTTTAGGTCAAATTTTCAGCGGAAAGTT GTATGGACACAATACCCGAAGAGATATACAAGCAGGCTTG TGTTTATACAACAGAAGAAGCAGTGGCCAGCTGCCAGGTA GTTGGCTATCCTGCCATGATAAAGGCATCTTGGGGCGGTG GTGGTAAAGGAATAAGAAAGGTATAGCATAAAAATAATCA GTAGTAGTTCTTTTATTCTCTCAACAATGCTTACAGAAAG GGTGGCAAATAGATTAGTGCAATGCCTGTGGCTATATATG CCAAAGAAGGTAGAGAAACGCTGAAACGGATATTGTTTCT TAATATTTTTGAGGTTATGATCTTATTTTGGTGTTCAGTCAA CTCCTGAAGTCCAACAAATAATGATGTAGCCATATGTATTA TCTAAACATGATTCATTTGTTTATTCATGGTTGTCATTACAA ATGGAATTACAGTACTCGTTATGATATGCAAATTAACAAAAA AAAAAA
65	<i>Digitaria sanguinalis</i>	cDNA Contig	1629	GTTGTTGCAAATGAATGTGACATTTAAAGCTGGGTCCTTT GGTCCAAGAGAAGATGCGTTTTTTGATGCTGTTACCAATCT TGCTTGTGAGAGGAACTTCCTCTTATCTACCTGGCTGCAA CTGCTGGTGCCAGACTTGGTGTAGCAGAGGAAATAAAGG CATGCTTCCATGTCGGCTGGTCTGATGATGAGAGCCCTGA ACGTGGTTTTCACTACATCTACCTAACTGAACAAGACTATT CACGTCTAAGCTCTTCAGTTATAGCTCACGAGCTGAAACTA

				GAAAATGGAGAAACCAGATGGGTGGTTGATACCATTGTTG GGAAAGAGGATGGACTTGGTTGTGAGAATCTACATGGAA GTGGTGCGATTGCCAGCGCGTATTCTAAGGCATACAAAGA GACCTTCACCCTGACATTTGTGACTGGAAGAGCTGTTGGC ATTGGAGCTTACCTGGCTCGTTTAGGTATGAGGTGCATAC AACGTCTTGATCAACCAATTATTTTACTGGGTTTTCTGCAT TGAACAAGCTTCTGGGACGGGAGGTATACAGTTCTCATAT GCAATTGGGTGGCCCCAAAATCATGGCTACAAATGGTGTT GTCCACCAGACCGTGTGAGATGATCTTGAAGGTGTTTCTGC TATCCTGAAATGGCTCAGTTACGTTCCCTCCCTATGTTGGTG GTCCTCTTCCTATTATGAAACCCTTGGACCCACCAGAAAGA CCTGTAACATACTTCCCTGAGAATGCATGTGATGCTCATGC CGCTATATGCGGCATTCAGGACGGTGAAGGCAAGTGGTTG GGTGGTATGTTTGACAAGGAAAGCTTCGTGGAAACATTGG AAGGCTGGGCAAAAACCTGTTATCACCGGGAGAGCAAACT TGGTGAATACCAGTTGGTGTGATAGCTGTGGAAACCCAG ACAGTGATGCAAGTCATCCCTGCTGATCCAGGGCAGCTTG ATTCCGCTGAGCGTGTAGTCCCTCAAGCAGGACAAGTGTG GTTCCCTGATTCTGCCACCAAAACGGCTCAGGCATTGATGG ATTTCAACCGTGAGGAGCTTCCACTTTTCATCCTTGCAAATT GGAGAGGTTTCTCTGGTGGACAAAGGGATTGTTTGAAGG GATACTTCAGGCTGGTTCAACAATTGTTGAGAATCTGAGG ACATACAAGCAGCCTGCTTTCGTATATATCCCAATGGGTGG AGAGCTGCGGGGAGGAGCCTGGGTTGTGGTGGACAGCAA GATCAATCCGGACCACATTGAGATGTATGCGGAGAGGACT GCGAAAGGCAATGTCCTTGAGCCAGAAGGATTGGTGGAG ATCAAATTCAGGCCAAAGGAACTGGAAGATTGCATGCTAA GGCTTGATCCAGAATTGATTGGCCTGAATGCTAGGCTGAA AGAGTTGAAGAAGCAAAATGCCAGCAACTCGGAAACGGA GACCATCCGTAAGAGTATGACAGTTCGGATGAAGCAGCTA ATGCCTATATATACTCAGGTTGCCACACGGTTTGCTGAGTT GCATGACACCTCCGCTAGAATGGCTGCAAAAGGCGTAATT GGTAAGGTTGTTGATTGGGAGGAGTCTCGGGCCTTCTCTA CAGGAGATTGCGAAGGAG
66	Digitaria sanguinalis	cDNA Contig	1468	CGTGGTGTAGATGACAGCCAAGGGAAATGGTTGGGTGGT ATGTTTGACAAGGACAGCTTTGTGGAGACATTTGAGGGAT GGGCAAAAACAGTGGTTACTGGCAGAGCAAAGCTTGGAG GAATTCCTGTCGGTGTGATAGCTGTGGAGACACAAACCAT GATGCAGCTTGTCCCTGCTGATCCAGGCCAGCTTGATTCCC ATGAGCGATCTGTTCCCTCGGGCTGGACAAGTGTGGTTCCC AGATTCTGCAACCAAGACAGCTCAGGCATTGTTGGATTTC ACCGTGAAGGATTGCCTCTCTTCATCCTTGCCAACTGGAGA GGTTTCTCCGGTGGACAAAGAGATCTGTTTGAAGGAATTC TTCAAGCTGGGTCAACAATTGTTGAGAATCTTAGGACATAC AATCAGCCTGCATTTGTCTACATTCCTATGGCTGGAGAGCT ACGTGGAGGAGCATGGGTTGTGGTTGATAGCAAAATAAAT CCAGACCGCATTGAGTGTTATGCTGAGAGGACTGCAAAAG GCAATGTCCTTGAACCTCAAGGGTTAATTGAAATCAAGTTC

				AGATCAGAGGAACTCCAAGACTGTATGGGTAGGCTTGACC CAGAGTTGATAAATCTGAAAGCAAACTCCAAGGTGCAAA GCTTGGAATGGAAGTCTACCGGACATAGAATCCCTTCAG AAGAGTATAGAAGCTCGTACGAAACAGTTGTTGCCTTTATA TACACAGATTGCAATACGTTTTGCTGAATTGCATGATACTT CCCTCAGAATGGCAGCTAAAGGTGTGATTAAGAAAGTTGT AGATTGGGAAGAATCACGTTCTTTCTTCTACAAAAGGCTAC GGAGGAGGATCTCCGAAGATGTTCTTGCAAAAGAAGTAA GAAGAATAGCTGGTGACCACTTCACTCACCAATCAGCAGTT GAGCTGATCAAGGAATGGTACATGGCTGCTCAACCAACAA CAGGAAGCACTGAATGGGATGACGATGATGCTTTTGTTGC CTGGAAGGAGAATCCTGAAAATTATAAGGGATATATCCAG GAGCTAAGGGCCCCAAAAGGTGTCCCAGTCGCTCTCCGATC TCGCAAACCTCCACTTCAGATCTAGAAGCATTCTCTCAGGGT CTTTCTGCACTATTAGATAAGATGGAACCCTCCAGAGAGC CAATTTTGTTGAGGAAGTCAAGAAGGTCCTTGGTTAATTGG ATCATACCAACACAATGTGTATGCAACATGTTTTTGTGGA AGTACATACATAGAAGGCCCTTGATGAGATCTGATCTGAA TCTACCATTATTTGTTAAAATTTGTTTGGTTGGACGATCATG TGGTTGAGTAAGTGCTAAGTTGTCTCTGTAGTTCTGGGATG TATTACCAGCAGTTCGATTGTGTAATTTTAGAGTGTATCAT GCGGATATTACATTCAGTTGAGTGGTTCATTAAATTTTGAA CTCGAATAATTT
67	<i>Digitaria sanguinalis</i>	cDNA Contig	1194	GCAAGCGAACTTCTTGAACAACTAACTAAGTGAAGTCC GTGCAAGCATCGCAAGAAGCCTTTCTGATCTGGGGATGCA TAAGGGAGAAATGACTATTAAGGATAGCATGGAAGAGTT AGTCTCTGCCCCATTGCCTGTTGAAGATGCACTTATTTCTT GTTTGATTACAGTGATCCAAGTGTTCAGCGGAAAGTGGTT GAAACATACATATCTCGATTATATCAGCCTCTTCTTGTA GGATAGCATCCAAATGAACTTAAGGAATCTGGTGCCGTT GCTTTTTGGGAATTTTCTGATGAGCATGCTGACACTAAAAA TGGACAAGAAGCTGTTCTTGGTCAAAAGAGATGGGGGGC CATGGTTGTCATCAAATCACTTGAATCTGCGCGAACAGCCA TTGTAGATGCATTAAGGATTCGGCATGGCAATCCAGCTCT GAGGGCAACATGATGCACATTGCATTATTGAGTTCTGAAA ATGAAAATAATATCAGCAGTGATGATCAAGCTCAACATAG GATGGAAAAAATTACCAAGATATTCAAGGATAGTGGTGTT GTAAACGATCTCCGATCTGCTGGTTTGAAGGTTATAAGTTG CATTGTTCAAAGAGATGAAGTACGCATGCCAATGCGCCAC ACATTCCTCTGGTCAGATGAAAAGAGTTGTTATGAGGAAG AACAGATTCTCCGCCATGTGGAGCCTCCCCTCTCTGCGCTT CTTGAATTGGACAAGTTGAAAGTGAAAGGATACAATGAAA TGAAGTATACTCCATCACGCGACCGTCAATGGCATATCTAC ACACTAAGGAATACTGAAAACCCCAAAATGTTGCATAGGG TATTTTTCCGAACCTATTGTCAGGCAACTGAATGCAGACAAC AAATTTGCATCAGCCCAAGTTAGCAACACTGAAGTTGGAG GTCTGGAGGAATCTTTGTCATCTACATCAAATAGCATTTTA AGATCGTTGATTACTGCTATTGAAGAATTAGAGCTTCATGC

				GATTAGGACAGGTCATTCTCACATGTATTTATGCATATTGA AAGAACAAAAGCTTCTTGATCTCATCCCCTTTTCAGGGAGC ACAATTGTCGATGTTGGCCAAGATGAAGCAACTGCTTGTTG ACTTCTAAAATCAATGGCTCTGAAGATACATGAACTTGTTG GTGCACAGATGCATCATCTT
68	Digitaria sanguinalis	cDNA Contig	586	GAGAAGAAAAGGGGTATCATGGTTGTAATCAAGTCTCTCC AGTTTCTAGCAACTGCAATTGATGCTGCACTGAAGGAGAC CTCGCAATATAGAGCAGGTGCTGTAAGTGTCTCGAATGGT AACCATGTAAATTCAAATCAAAGCAATATGCTGCATATTGC TTTGGTTGGTATCAGTAATCAGATGAGTACACTCCAAGACA GTGGTGACGAGGATCAAGCACAGGAAAGGATCAACAAAC TTTCCAAAATTTTGAAGGATAATACTATTACATCGCAGCTT AATGGTGCTGGTGTTAAGGTCGTCAGCTGCATTATCCAAA GAGATGAAGGGCGTCCACCAATGCGACACTCCTTCCATTG GTCTGCTGACAAGCTTTATTATGAGGAGGATCCAATGCTCC GCCACGTGGAACCACCATTGTCTACATTCTTGAGCTGGAC AAAGTAAATTTGGAGGGTTACACTGAAGTAAATACACCC CATCACGTGATCGTCAGTGGCATATTTACACACTTATCAAG AACAAGAAAGATCAGAGATTAAACGACCAGAGGATGTTCC TTCGTACCATAGTCAGACAAC
69	Digitaria sanguinalis	cDNA Contig	488	CAGCCTTTGAAATTACTGGATCAGAAACGTCTTTTGGCCCG TAAAAGCAATACTACTTACTGCTATGACTTTGCACTGGCAT TTGAAGCAGCCCTTGAGAATATCTGGTCATCGAAACTCCCA GGTGTTAACAGGCCTGGTGCTAAGCTTGTAATGTGACAG AGCTTGCGTTTGCTGACCCAAGAGGCTCATGGGGTACACC ACTTGTGGAATAAACCGTGAGCCGGGCCAGAACAAATGTG GGCATGGTGGCATGGACCATGGACCTCTGCACACCCGAGT TTCCTCATGGAAGGACAATTTTGGTAGTTGCAAACGATGTC ACGTTTAAAAACGGGTCTTTCGGCCCGATTGAAGACGCGT TTTTCGAGGCGGTTACCGAACTTGCTTGTTCCAAGAACTG CCACTCATCTATCTGGCAGCTAACTCAGGGGGCCCGAATTG GGGCGGCTGAGGAGGTCAGATCTTGCTTTAGAATCGGGT GGTC
70	Digitaria sanguinalis	gDNA Contig	10084	TTTTCAGGTTTGTTTGTTTCGATTTCCGATTGTGTTTTTGA GTCGCTGTTGCTTGATTCTGCTGCTGTTACTGCTGGTTGA CTCTTCTAGTGTGTTGATTGAGATTTGTTAGTTTGATTGAC TTCGATTTTGAATCGGATTTTGAAGTTGGAGTTGTAAGT GTTTTGAAGCGTGTTTTTCGGCGTTTTAGTTGCGTTTTTCTT ATGGATCCGATTCTTTTATATGAATGCGGCGTTTGGCGCTG AGCAACATGAATTGGAATAAACTTGTGGTATTTTGCTCTTT TTCTATATATTAGTCTAATTCAACTTCGATTATGGAATCTGA TTTTTGAATTTGGAGTATATGTAGTATATTTAAACATGTTTT TCGGTGTTATCATTGTGTATTTTTTATGGATCCTGTGCATCG GAGATGCGTTTATATGAATACTGTGTTTGGTGCTGAGCAA CATAAATTGGATTATACTTGTGCGAAAATAATTCTCGTAATA AGGTTCAAGGTATCTAGAAGTCTACCTGAAGTGATATAGT GGACCATGCGGATTTGATTCTTTGAGTTGTTTTTCTTCAAGT CAAAGATCCTGTTATATTTAATTATTTCTTTTGATTATGAA

				ATGAGTAATTAAGCAAGTGGTATGCTCAATTCGTTGAAAAT ATTATGTATTGAAAAGGATTTGAAGGTTACGAACTGGATTT TCAACTCGAATGAGTTTTTTTTTGTGCAGAATGTTGGAGAC ACAGAGGAGGCAGCCGTTAGCAGTAGGGGTTACTCGTGG GAATGATTTACCAATGGTGTGCTTACGATGAGAAGCCCT GCTACAATATCAGAAGTAGATCAATTTTGCCGTGCTCTTGG AGGAAAGAGACCGATCCACAGTATATTAATTGCAAACAAT GGAATGGCAGCTGTCAAGTTTATACGAAGTGTTAGGACAT GGGCTTATGAACTTTTGGCACTGAAAAGGCTATCTTGTTG GTGGCCATGGCAACTCCAGAAGACATGAGGATCAATGCAG AGCATATTAGAATAGCTGATCAGTTTGTGGAAGTTCCTGG GGGGACAAACAATAACAATTATGCCAATGTGCAACTCATT GTTGAGGTGTGTAAGTTCATAACCTTTTAGCATATTGGATA GCTTATGTTGTGTTAGTCTAAAGTTCGATAATTCTAAGCAT ATAATGATATTAAATGTGTTTAAGGATTTCTCAGTAATAGG AATTTGTAAATCTTTTCTGTCAATGGGTTTTACAGAAATTCA TAAATTATAATGTAATCTAGAAGCTTTGAAATTGTATTTTG CACATCTCAGAAGATTATGAAGTAATAGGCTGGTATACAG TGAATTTCAATTATTGCAAGATATTGTTGTTATGTGCTCACTC AAGAGCATTCTTTTCAATTTGGCAATGTGAAAAGGTTCACT TAGAAATATCACTTGTTACCCTTGTTGTTTGCATAACTAAGT TTGATTTTGTGTCCAGATGGCAGAGGTCACCCATGTTGATG CAGTTTGGCCTGGTTGGGGACATGCATCTGAAAACCCAGA GCTTCCAGATGCACTAACTGCAAAGGGAATCGTATTTCTTG GGCCCCCAGCTGCGTCCATGGGAGCTTTGGGTGATAAAAT TGGATCCTCTTTGATTGCGCAAGCAGCAGATGTTCTACTC TTCCATGGAGTGGCTCTCATGTAAGTAATGCTCTTCTCAAG CTGTTCTTTCATTTTCTGTAGTCATTCCAATCTAAGATATCA TGATCTTCCTTATAGGTGAAAATTCCTCCAGAAAGTTGTTT GATTACCATCCCCGATGACATATATAGAGAAGCATGTGTTG ACACAACAGAGGAAGCTATTGCAAGCTGCCAAGTTGTTGG TTACCCTGCTATGATAAAGGCATCATGGGGCGGTGGTGGT AAAGGCATAAGAAAGGTTTGGCTTCGATATAACAAATTTT CGAGTGTAGTGTTCAAGTCTGTAGTGTACGATGGCTGAGT TTTGTTTTCTTGGATTATCTAGGTTTATAATGATGATGAAGT TAGGGCATTGTTCAAGCAAGTCCAGGGTGAAGTTCCCGGT TCACCCATATTTATAATGAAGGTCGCTTCACAGGTTAGGAT ATTATCTAGCTTCTAATTTGATACAAGAGATTTTACTTTGTG ATTCTTGACGCGTGAATCGAATTCTGATGATCTATTTGATTT TCCTTATGTAGAGTCGACATTTAGAAGTCCAATTGCTCTGC GATCAATATGGAAATGTAGCAGCTTTGCATAGCCGTGATT GTAGTGTTCAAAGGCGGCATCAAAGGCATGTTTATTTCTC TCAAGTAATTTTGATTTTGTCTGCTTAGTGAAATTGACCAT GAAAGTATAAGCTTAGTGTGAAGAGCCTGAGGCTCTGACC ACATGCATGTTGAGAATGAGCCAGTGACTTTTAATCAGTG GCTCAACCATTAATTTCTCCCCTTCAAATTTCAACTGTTTG TACATCTATCTAGTATCTACTACATGGGTTATGCATTTCAA AAAGGCCTAACTTGTGTTGAGATGTGAAACAGATAATTGA
--	--	--	--	--

				GGAGGGTCCAATTACCGTTGCACCATTTGGTGACTGTAAAA AAACTAGAGCAGGCAGCTCGAAGGTTAGCGAAATCTGTGA ATTATGTGGGCGCTGCTACTGTTGAGTATTTGTACAGTATG GAAACTGGCGAGTACTATTTTCTAGAGCTCAACCCTCGGTT ACAGGTATAAATGAATATAGTTTGTAGGGATGTGAAGTTG TTATGCTCTATAGTAGTAATGATATCTAAAATGCTTAAATTT TATGTTGCTCAATTGATGACAATTGGATAAACCGTATTAC TTGGGAAAAACCATCCTGAATATAGTTCGTACCTCATTAC CTTGCGTACTACTGATATTGATCCTATGAATCTGTTTTTAA AATATCTTTGTTTCTGTAATAAATTGTTCTTTGACTTTTCTAA TGATCTTTAATCTACATCCTAATCTGGATGTAGGTGGAGCA TCCTGTCACAGAGTGGATTGCTGAAATAAATTTGCCTGCTG CCCAAGTAGCTGTTGGGATGGGAATTCCTCTGTGGCAAAT TCCTGGTATGACCGCAAAAGTTGGAAATTCGCATTCTCTTG CTCATTAGACATGTTTCTTTGACATTCTGTTCAATTTTTATTCA GAGATTAGGCGATTTTATGGAATGGAACATGGTGGAGGA TATGATGCTTGGAGGAAAACCTCAGTGGCTGCTACGCCTTT TGATTTTGACAAGGTAGACTCTACAAAGCCAAAAGGTCATT GTGTAGCTGTACGTGTGACAAGTGAGGATCCAGATGACG GTTTCAAGCCTACTAGTGGAAAAGTACTGGTAAGGTTTTCA GGTTGACTATTCTAATTTGAATTTCTTCTATTCCAAAATTC CTTATCCTGTAATGAACTTGTACTTTTATTGTCTTGACACAGG AGCTGAGTTTTAAAAGCAAGCCAAATGTGTGGGCTTATTTCT TCTGTGAAGGTGACTTTTTGCTGCTCTCTTTCTTTGGAACAT GTTTATGTTGACACAATTGGTTTCTGACTTAATAACTTCATT CTGATTTGTAGTCTGGTGGAGGCATTCATGAATTCTCAGAT TCACAATTTGGTAAGTAATAATTGCTAAATAATCACACTTC ATGGATAATAATGAAAAGAAGTTTGTGAGATGAGTTATCC AATCTGCTGCAAATTAATGGTTCTTTTTTATCTTCTTGAC ATTTTTTTTAAACAAAAGCTACAGTCTGCTTTTCAGTTTAGTC TTTTCCGTTTGTTACATTTGCTATCGAAAGCACTCATGATTG TCGTAATCTTTCCTTAGGACATGTTTTTGCATTTGGGGAGT CCAGAGCTTTGGCAATAGCTAATATGGTTCTTGGGCTGAA GGAAATACAGATAAGAGGAGAAATCCGCACCAATGTTGAC TACTCTGTTGACCTTTTACATGTAAACTATCTTAGCTGTTGA TGTTCCCTTTATACATCATGTAAACTTTACGAGGAACATG AACACGAGTTGACATGCTATGCAGGCTTCAGATTATAGGG AAAATAAAATTACACAGGTTGGTTGGACAGTAGAATAGC TATGAGGGTTAGAGCAGAAAGACCTCCTTGGTACCTCTCT GTTGTTGGAGGGGCACTATATGTAAGTTGTCACGATTTAC ATGAGAGGATGACTGTATACTTTTGGAAATGCTTTATTATGT CTTTCAGAACTTGCCACTTAAGTGTTCAATTTTTGTTTGCA CCAGAAAGCATCTGCTAGCAGCGCAGCTATGGTTTCTGATT ATGTTGGTTACCTTGAAAAGGGCCAAATCCCTCCCAAGGTA CATCAAAAGTATATTTGTACAATTGTATATGTTTCTTATTCA GCCGATTATGTTGATGTTGATGTTGATGTTAGTTGATCTTG TTTTCAGCACATATCACTTGTGAACTCTCAAGTTTCATTGAA CATCGAAGGAAGCAAATATACGGTATGGTACCTTTCATATT
--	--	--	--	---

				AGTATCTTAAATGAATAAATTTTAGTTTGGTGATGGATGCC ATTTACGTTTGTAAAATCATTGCTAGATTGACATGGTTAGA GGGGGGCCAGGGAGCTATAGATTGAGGATGAATGGATCG GAGATAGAGGCAGAAATTCATACACTGCGTGATGGAGGTT TATTGATGCAGGCAAGTTGACTCATTAACCATGGCTGTTGT AAACTAATAATTTTCGTCCTTTTTATCATTTAATATTTGCTTT AGTCGACCCTCCATGCTTTGGAGACCATAACAGACTCTATT CTGTTTCTTCACAGTTAGACGGAAACAGTCATGTAATATAT GCTGAAGAAGAAGCAGCCGGAACTCGCCTTCTAATTGACG GGAGGACTTGCTTGCTACAGAATGATCATGATCCGTCAAA GTTAGTGGCAGAGACACCATGCAAACCTTCTGAGATATTTG GTTTCAGATGGTAGTCATATTGAAGCTGATGCTCCATATGC AGAGGTTGAAGTTATGAAGATGTGCATGCCTCTTCTTTCAC CTGCTTCTGGAGTTGTCCATTTTAAAATGTCTGAAGGTCAA GCAATGCAGGTGTGTTTGATTTCACAAACACGTGCTTTTGG GCTTGATAAGTACTTTTTAGTTTTATATGAATAGTCAGTTTT GATGTGAATCTAAGAAGTTTTCATGTAGGCTGGGGAGCTC ATTGCAAGGCTTGATCTTGATGATCCTTCTGCTGTAAGAAA GGCAGAGCCTTTTCATGGGAGATTCCCGCTACTTGGCTCTC CGACTGCTATTTCTGGTAAAGTTCATCAGAGATGTGCTGCA AGTTTGAATGCAGCCCGTATGATTCTTGCTGGCTATGATCA TAATATTGATGAAGTAAGTTGCAAGCTGGCTAGTTTCAACA TGAACCTAATTGATGAATTAATTGTTCAATTCTATATTTTGT GATTGTGTAATTTTCATAACAAAATAATGAACTATGCATTTG GTTTATTATACTGACAATTATTTGTTGAAATCTGATGTAATA TCTCAATGACATCTATAGGTAGTGCAAAACTTGCTCAATTG CCTTGACAGTCCTGAACTCCCTTTCCTTCAGTGGCAAGAGT GCTTGTCTGTTCTAGCAACTCGCCTTCCCAAGGATCTTAGA AGCGAGGTGAATAATTTTTCTGTAATTTTTTCATGACCACA TAGTCTTCTTGCTCACAATTTGATATTGGCAATTTGTATAGT TGGAATCAAAATACACAGAGTTTGAAGGAATTTCAAGCTC CCAGAACATTGACTTCCCTGCCAACTGTTAAGGGGTGTCC TCGAGGTGGGTTCTTATTGCATGGCTCTCTTGGAATTTCT CATTATCTGTTTTTTTTGCTGTTTAATGAGATGTGTATGCTT TTCCTCCAGGCACACCTGAAATCCTGTCCTGAGAAAGAAAA AGGAGCCCTGGAAAGGCTTGTTGAACCTTTGATGAGTCTT GTAAAGTCTTATGAGGGAGGACGTGAGAGTCATGCTCGA GTGATCGTCCAATCACTTTTTGAAGAGTATTTATCTGTAGA AGAATTATTTAGTGACAACATCCAGGTTAGCTTCTTCCTAT CAAACATAATATGGAATTATTTTGGATTCTGAAAGTCTTCC CTCTTTGGCATCTTTTAGAAAATTAAGCATAATACTAGGTA CTATATCCATTATTCTTTATAATCATGAAATTTAATTTTTACA GAAGAAAAGTGGAATTTCTATATATATTTAAACCAAGCTG GCAAGCTTTGAATTCAATCCTGTTGTTTATTGTTTTATCCAA CATGCCAAAAATATTAGGAACTTCATGTGACTACTTGTATC ATTCTTATTCTGTAATTACAGTAAAGTAACTTGTGCATATCCT AATGTTATAACTCGTAACATTCTTCTTTAGGCTGATGTGATT GAACGTCTCAGACTTCAATATAAGAAAGACCTTTTGAAGAT
--	--	--	--	---

				AGTGGACATTGTCCTTTCTCATCAGGTATCTGATTTTCGGTT TTAATTTTTATCTCGGGTTTTCTAAAATAGAATTCTGAGTTT GTGGAAATAACTACCGTATTTGTTGGTTTATAGGGTGTTAA GAGTAAAAATAAGCTGATACTACGGCTCATGGAACAACTT GTTTACCCCAACCCTGCTGCATATAGGGATAAACTCATTCTG GTTCTCTCAGCTTAACCACACCAGCTATTCCGAGGTTGGCA GCTATACTTGGTCCATCTGTAATTTCATAAAAGTTGTTGCTCT GTTTCCTTTTGTTCAAGTTTCAATTTTGAGAGTTTTCCATA GGATGGTGACTGACAGGAAGAGGATTCTAATGTTTTCTCT TGGAGGATTTTTCTGTATTTTCATTTCTTGTCGGTCATTGA TTAATTCCGTTTCTGGTATCAGTATCATCAAATGTTGTCTT TTTCTGTATACTGATGCTGAATTATGTGAACAGTTGGCATT GAAGGCAAGTCAACTCCTAGAACAACCAAACTGAGTGAA CTCCGTTCCACTATTGCTAGAAGCCTTTCGGAATTGGAGAT GTTTACCGAGGATGGTGAAAATATGGATACTCCCAAAAGG AAAAGTGCCATTAATGAACGTATGGAGGATCTTGTGAGTG CTCCTTTGGCTGTTGAAGATGCTTTAGTGGGTCTTTTCGAG CACAGTGATCACACCCTTCAAAGGCGAGTGGTGAAACTT ATGTTTCGTAGGCTATATCAGGTACTGTGTTGTAGAACTTA AAACTTTTATCTGGTGATCAAACACTAGACGAACTTGATC TTGATCAACTGTTTGTCTACCGCACCAGCCCTATCTGGTCA AAGGTAGTGTGAGGATGCAGTGGCATAGATTTGGTCTTAT TGCTACATGGGAATTCTTGGGAGAGCATATCGGGAGAAAG AATGGATCTGAAGGTCAAATGTCAGATGAACCAGAGGCTA AAAAACAGTCTAATAAGAGATGGGGAGCAATGGTTATCAT CAGATCTCTGCAGTTTTTGCCTTCAGTTATTGGTGCTGCATT AAGGGAAACAAATCAAAGCCTTAATGAGTCCATTCCAAGT GGATTAGTAAAATCAGCGAGCTTTGGTAATATGATGCACA TAGCATTGGTAGGCATCAATAATCAGATGAGCTTACTACA GGATAGGTAACTTCCTTCGGTACTATAATATAAGCGTTTAT TTAATCATAAAAATTAGTAGCATTTTACATTCTATTATTCA TTGTAAGATCTCAAGTCTTCTTAATCATTTCTGCATTTGAAA CCTTGATAGATCTGGATAGATTCCCTATTTTTGTTTAAATT TATGATAGAGTTACCTGGTCTCGAACCCTTAAACATGCAC ATATATTGGCTTGCCAAACATAAGTTATTTGCGTTGTCAA TTTCGATTATTGACGGTCAGCTTGTTAATGCTCCTAACTGG CACCATCTATGACATTTTGCAGTGGTGATGAGGATCAGGC ACAAGAGAGAATTAACAAGTTAGCCAAAATTCTCAAAGAA CAGGAACTAGGTTCCAGTTTGAGCTTGTCAGGCGTTGGAG TTATTAGCTGTATCATACAGAGGGATGAAGGGAGAGCCCC TATGAGGCACTCCTTTCACTGGTCAGAGGAAAAGCTTTATT ATGAGGAAGAACCTCTATTGCGACATTTGGAACCTCCACTA TCCATCTACCTTGAACCTGGTTTGTCACCTATCGCAGTGTTTC AATACATTTTTTTGGCAGAAACCTTTATTGAGCCCCTGAAC TTACCAGTTTTATTCTCAAGTTATTATTGACTACATTAAAT ACTTAATTACTATTGATTCCACATTATGACCTTGCAATATAA TTACAAGTGTTACGTTTTATTGATAAAATTATAACTGTTGCT ATTTTGTTTTACATATATCAAGGACTGCACTATAGTAAAAA
--	--	--	--	---

				AATGAGGACTCGATAGGATTGGAAAGTTCAGGGGCTTACT AATTGTTTGAGCGGAAAAAATATATATAAATGTGAAATT GGATAATTCTATATCATTTCATCTGAAGCTTATTATGGCCTTT TTTTGATCCAGGACAACTTAAAGGCTATGACAATAGACA ATATACTCAGTCAAGGGACAGACAATGGCACATGTACACT GTTGTAGACAAACCAGTTCCAATCCAGAGGATGTTTCTAAG AACCCTTGTGAGACAGCCCACAAGTACTTCATATCAAGGTC TTGGCGCCGAAGCACCCAATGTGCAGTGGGCCATGTCCTT TACGTCAAAGAGCATTTTGAGGTCCTTAGTAGCTGCAATG GAGGAACTGGAGCTTCACGTGCACACTGTCAAATCTGACC ATGCTCATATGTACCTCTGCATATTGAGGGAGCAACGGAT AGAAGATCTTGTTCCATACACGAAGTAATTATATCAATCTT TATGATTTATTGTGTACTTGGCACCATAACTTTATGTGTACT CACTATGAGACTCCATCTCCAGGAAAACCGATGTAGATGC CAACCAAGAAGAAGCTGCGGTAGCAAGAATCTTGGAAGA ACTAGCGAGGAAGATACATGCGTCGGTTGGAGTCAGAAT GCATAGGTTAAATGTTTGCGAGTGGGAAGTGAAGCTATGG ATGACATCATCTGGACAGGCAAATGGTGCTTGGAGAGTTG TCACAACAAATGTGACTGGGCATACCTGTGCTGTGCATGT AAGTATCTGCGCATCTTATTTCAAGAAAATGTCTTCCCTTC CATGCATTCTTATTAGTCGACTTAGTAATGGGGAATGTCTG AGAAGTGTTGGATGGTTACCAATGTGAGTACCATCACTGT TTAGATTAATAATTGACCATTGCTTTAGCAATACAATAATGA ATCTAATTGTGGCATGGGAGGCTTTTCTATGTGTGATCCAT GGAAAACTTGTATATAGTTCCTTAGTAGGTTTGAGTTGTT TTCATTTTTCTTTATCACATTGTAATTGTATTGGTGATTGAT ACGAAAATTAGATATATCGGGAACTTGGGGACGAGAGCA AACATGAAGTGGTGTACCATCAATCTCTCAAGAGGCCCA CTGCATAGCATGCCAGTGAATGCTGTTTATCAGCCCTTGGG AGTTCTCGATCGAAAACGTTTGTTGGCAAGGAAGAGCAAC ACCACTTACTGCTATGATTTTCCACTGGTTAGTATTTCTATA ATCATTAAATCAAACATCAGTTTTTTTTATTGGGGATAATTAA AATCAAATAATTTTTCTGGCCTCATCCTTTTCAGGCGTTTCG AGACAGCCATCGAACAATTATGGGAATCTCAATCACCAGG GACTGAAAGAAACAAAGAAAAAGTCCTAAAAGTCTCGGA GCTTGTTTTTGCCGATCAGAAAGGTACCTGGGGAACTCCA CTTGTTTCATGCAGAACGGCCAGCTGGGCTTAACGACGTGG GCATGGTAGCATGGTGCATGGAAATGTTACCCCCGGAATG CCCTTCCGGAAGGAAAATCTTGATAGTAGCGAACGACGTG ACCTTCAAAGCCGGGTCTTTC
71	Digitaria sanguinalis	gDNA Contig	2626	AATCAACTTTATGCTCAAGCGAAAGAGCTTATATTTGCTGA TTCAGTTGGAGCATGGGGCACTCCAGTGGTTTTAGTTGAA CGCCCTCCAGGCAACAATGATATTGGCATTGTTGCTTGGAA CATGAAGCTGTCCACACCAGAATTTCTAATGGCCGCGATA TTATAGTTGTTGCAAATGATGTGACATTTAAAGCTGGGTCC TTTGGTCCAAGAGAAGATGCGTTTTTTTGATGCTGTTACCAA TCTTGCTTGTGAGAGGAACTTCCTCTTATCTACCTAGCTG CAACTGCTGGTGCCAGGCTTGGTGTAGCAGAGGAAATAAA

				GGCATGCTTCCATGTCGGCTGGTCTGATGATGAGAGCCCT GAACGTGGTTTTCACTACATCTACCTAACTGAACAAGACTA TTCACGTCTAAGCTCTTCAGTTATAGCTCACGAGCTGAAAC TAGAAAATGGAGAAACCAGATGGGTGGTTGATACCATTTGT TGGGAAAGAGGATGGGCTTGGTTGTGAGAATCTACATGG AAGTGGTGCAATTGCCAGTGCCTATTCTAAGGCATATAAA GAGACCTTCACCCTGACATTTGTGACTGGAAGAGCTGTTG GCATTGGGGCTTACCTGGCTCGTTTAGGTATGAGGTGCAT ACAACGTCTTGATCAACCAATTATTTTGAAGGTTTTCTGC ATTGAACAAGCTTCTAGGACGGGAGGTATACAGTTCTCAT ATGCAATTGGGTGGCCCCAAAATCATGGCTACAAATGGTG TTGTCCACCAGACCGTGTGAGATGATCTTGAAGGTATTTCT GCTATCCTAAAATGGCTCAGCTATGTTCTCCTATGTTGG TGGTCTCTTCTATTATGAAACCCCTGGACCCACCAGAAA GACCTGTAACTACTTCCCTGAGAATGCTTGTGATGCTCGT GCCGCCATATGTGGTGTTGAGGACGGTGAAGGCAAGTGG TTGGGTGGTATGTTTGACAAGGAAAGCTTCGTGGAAACAT TGGAAGGCTGGGCAAAAAGCTTATCACCGGGAGAGCAA AACTTGGTGGAATACCAGTTGGTGTGATGCTGTGGAAC CCAGACAGTGATGCAAGTCATCCCTGCTGATCCAGGGCAG CTTGATTCCGCTGAGCGTGTAGTCCCTCAAGCAGGACAGG TGTGGTTCCTGATTCTGCCACCAAAACGGCTCAGGCATTG CTGGATTTCAACCGTGAGGAGCTTCCACTTTTCATCCTTGC AAATTGGAGAGGTTTCTCTGGTGGGCAAAGGGATTGTTT GAAGGGATACTTCAGGCTGGTTCACAATTGTTGAGAATC TGAGGACATACAAGCAGCCTGCTTTCGTATATATCCCAATG GGTGGAGAGCTGCGGGGAGGGGCCTGGGTTGTGGTGGA CAGCAAGATCAATCCGGACCACATTGAGATGTATGCCGAG AGGACTGCGAAAGGCAATGTCCTTGAGCCAGAAGGATTG GTGGAGATCAAATTCAGGCCAAAGGAACTGGAAGATTGC ATGAATCGACTCGACCCAAAGCTGATATCTTTAAAAACCAA ACTAACCGAAGCGAAGAATAGTGGGACCTACGGGATGGT CGATTCCGTACAACAGCTGATAAAATCCCGGGAAAAGCAA CTTCTGCCGCTTACACGCAAATCGCCACACGATTGCCGA GCTTCACGACTCGGCTTACGAATGGCGGCAAAGGGGGTG ATTCGAGAAGTTGTCGACTGGGGGATTTACGATCTTACTT CTACAAAAGGTTAAGAAGGAGAATCGCCGAGGCTTCGTTG GTGAACACCGTGAAAGATGCAGCGGGTGATAAGCTCCAG CATAAGTCGGCTATGGAGTTGGTCAAAAAGCTGGTTTCTGG ACTCGAAAGGCGATTGGGAAAACGATGAAGCTTTCTATGC TTGGAAGGATAATCCCGCGAATTACGAGGAAAAGCTACAG GAGTTACGGGTCCAGAAGGTGTTGCTTCAGTTAACTAACA TTGGCGAGTCTTTGTCGGATTTGAAAGCTTTACCTCAAGGT CTTGCTGCCCTTCTAAATAAGGTAATTTTTTGGGTTTTTCT TCCAGGAATATTGTTTATTTAGACGATCGAGTCGGATGTTA TGTAATACTTTATGTTTGATGTAGGTGGAGCCATCGAGCCG AGGGGCGTTGATCGATGAGCTTCGGAAGGTGCTTAATTGA TTTTCGGTAAGTGTTCTCGGCTACTAAATATGTTTTACTTT
--	--	--	--	---

				GGCTTCAGTCTCTGGGTAGTTTGAATCAATAGAAAATGCC AATGTGAAAATACCCAGTAATATATTTGATAAGTGTAAATG TAACTATTATTATATTTAAGTGAATAGGGGGAATTAGTTCA TATGATTATTGTTGTTATAAACAAATCAGAGATAGAGAGA GCTATATTTATTATTATATTTGCGAATTAAAGTTATTAGGA GTAGTATAATTTGGCGGTTGTTGCATTTTACGTGTAATGAT CTGAATGTTGTTTGTTCGTGATTATTGAATAAAAGGGCATC AAATGCCATAATTTATCTTTCTTTGTTAACAAGATTTTAATT AGTTTTTTTTAATTATTAGTATGTTTTGTATAATTTATATT
72	<i>Digitaria sanguinalis</i>	gDNA Contig	2351	TCTCTCTCTCTCTCTCGGCTATGTTCTTCGCTTGCTTCTCA GCTCTGCACCGCTCGGGCGATCGAATTTGCGATTGCTCCGT GTGCCGCCGGCCGCTCGAGGCTGTCCGCGTCCAAATCCAA CTCCAAAACGCGACTTCGCGCGGGCGCCGACGCTACTAAAT CGCCGCTTGTACTTCTCAGCCGCGCCGGGCAACTTGCTTCG GCGTTCCGTCGAGCAGGTTGTGCGCGCGCCAAGTGTGATT GGGGAAATAGAGATCCTGCCTGCTGCTGGCAACCGGAATT TCGTCAATCAAAGGCAGGGGGTTTCCTTTTCAGTTTGGTTA GGGAGCTTGTTGTTTTGTTTGTGGGGTGCCGGGGTTGGT CCCCTCTGTTTTGGATTGGATTGTAGTGGCCTTTCGGGTTT CCACTTTGGACTCGCCTCTAGTGCGGACCTTCTGTGATCG CATAACACATACTACGGTCAATATATTAGTCACCTTTCGCTA GGTATAATCAAAACCTGTGTCCTGACACTTCTTATTCTGCT GGCTGCTTGTACTCTAATTCAATACAATCAGCTGCTGCCTA TGGATGAATCTGGTTAAATAGCCACTTCTCTGTTATCAACT CTATATCATCTCAGCACACTATTTTCATATACTACTAGTTGCC TGTCCGAAAGTATCGTGCTTGCGATTTGTTTCTTTTGCCTGT TCGATAGTCATGCAGTTTCCCCGTCACAATTGATGTACTAA CAATCTGTTTCTTTTGCAGTACCAGGAAGTTTGAAGTTCA GAGGGTGAGATAATGGTTGAGCCTGACCAGATGAACGGC ATACTGAATGGGATGCCTAATTTGAGGCACCCGTCCTCTCC ATCAAAGGTCGATGAATTCTGTAAAGCACTTGGTGGCGAC TCGCCAATACACAGTGTGCTAGTTGCCAACAATGGGATGG CCGCGGTCAAGTTCATGCGCAGCATCCGCACATGGGCCTT GGAGACCTTTGGGACAGAGAAGGCCATTCTCTTGGTTGCT ATGGCCACTCCGGAGGACTTGAGGATAAACGCCGAGCACA TAAGAATTGCTGACCAATTCATAGAAGTTCCTGGAGGAAC AAATAATAACAACCTATGCGAATGTACAGCTCATTGTGAG GTTAGCACAACCTCATCATCCTGGAAGTGAATAACTTGTGTT TAGTTTACATATGTTTTCACTCTGGACAATTCAGTAATTAAC ACTGAATTCACATTTACAGATAGCAGAGAGAACTCGTGTC TCTGCAGTTTGGCCTGGCTGGGGTCATGCATCTGAGAATC CAGAGCTTCCGGATGCTCTAAACGAAAAAGGAATAATTTT CCTTGGGCCACCATCAGCTGCAATGTCTGCACTCGGTGATA AGATTGGTTCTTCTTATTGCACAAGCAGCAGGAGTTCCA ACTCTTCATGGAGTGGATCACATGTATGCCTTCGCCTATT TCTGTGTGCCTTTGCTTCTAACTTTTATCTGCTAGTTTAATAT TCACTTAACATTGAACCAAACCTCACTGCAGGTGAAAGTTCC ACCAGAAAGCTGCCACTCGATTCTGAGGAGATATATAAG

				GATGCTTGTGTTTCCACTACAGAGGAAGCAGTGGCTAGTT GCCAGGTGGTCGGGTATCCTGCCATGATCAAGGCATCATG GGGTGGCGGTGGTAAAGGAATAAGGAAGGTTGGTTTTCT TTTTCTATTTGAATCTGAGAAAAAAGAAGGGAAATGTCCA GTATTCAGAAAACATGATCTGAAAGTTTCAAGGAAAAAGT TAGAGTAAATTAACACTAATTTTGATATCATTTGCATGGAT TCATAGGTACACAATGATGATGAGGTGAGGGCACTGTTCA AGCAAGTTCAAGGAGAAGTCCCTGGCTCACCTATTTTTATT ATGAAAGTGGCATCTCAGGTGAGAACTGATTCAACAAATT TTGGCTATTTAATGGTTTGCTTTGGCGCCACCTTTGTTCTT TGTATCCTGAGCTCTTCTATGTGGTTGCATTTGTTTCTGAAA GCTTTTGTTTGTTCTTTCTTTGTAGAGCCGACATCTGGAGGT TCAGTTGCTCTGTGACAAACATGGCAATGTGGCTGCACTG CACAGTCGAGATTGTAGTGTTCAAAGAAGGCACCAAAAGG TTAGCTCGTAGAATTTTTCTAAGCTTTGATTTACATTGTGA TTTCTTGTAATTTGTCCCATACTTGGATTGTGTAGTGTGCTG TATAGTAGTTTTATATATTTCTTGAATAAAGTTTAGGTGACC TAGTGCAAGACGAAAAAAAATCCATATTGCATTTTGTGAA GAAAATTTTCTCACATTTACCTCTGCA
73	<i>Digitaria sanguinalis</i>	gDNA Contig	2088	TTCAGTTGGATGGAAATAGCCATGTAATTTATGCGGAAGA AGAAGCTGGTGGTACACGACTTCAGATTGATGGAAAGACA TGCTTGTTACAGGTGCATATGCTCTTTTCCCTTTATTATCTTC TTGGTGTCTGATTGGGAGTCTTCTGCCAGATTTGCCTTTTCC GTTTATTACAACAATTTGTCTGTCATCCTTAACCTTCAGAAAA TCCTATTGTTTGCTTTCTTAGCATACTTGATTTCAAGTGAAT TTGACTACAATACCTGAATTAATAAAAAAACTGTAATCGTGT GATTAATAATCAAGAAGTAGCCTTTTTAGGATTGTAATATT TTGGTATTGCTACACTATGCCAGAAGTAGGTCACAAGTGT GTGTTCTTGCAGAATGATTATGATCCATCAAAGTTAGTAGC TGAGACACCCTGCAAGCTTCTTCGGTTCTTAGTTGCTGATG GTGCTCATGTTGATGCCGATGTACCATATGCGGAAGTTGA GGTTATGAAGATGTGCATGCCTCTCTTGTCCCCTGCTTCTG GTGTCATACATGTTATGATGTCTGAGGGCCAGGCATTGCA GGTTATTTTTGTACATCCCTCCTTGCATTGTGCTTGCATCAC ATAACTGCATGTAACATTTTTAGACTTATATTTTGTCTAGG CTGGTGATCTTATAGCGAGGCTGGATCTTGATGACCCTTCT GCTGTGAAAAGAGCTGAACCATTTGATGGAATATTTCCAC AAATGGGTCTTCCTGTTGCTGCCTCTAGTCAAGTACACAAA AGATATGCTTCAAGTTTGAATGCTGCTCGAATGGTCCTTGC AGGATATGAGCATAATATCAACGAAGTAAATATTCCATCTT ATTATGATTATACTCTATTTAGTTTTTTTTTAATCTTTGTTT CCTTTACTTTGATTTGTGTACTCCATCCCAAAACAGTGTGAT TCTAGTGTTGTCCTAAGTATCATTAGATTCATCATGAAATAT ATTTTGGGACTGTTTTGAGGGTTCACACGGGTTCATGTTT TTTTTTTTGGTTCTGCTGACTTTTCGTCCAACTTGTATAATC TATGGAAAATTGTAATGGTAAGTACGTTCTGATCATGCTCA CATAGTCACACTAGTGTAACCTTTATATTCTAGTTTGATAATT TTGAGTCGCACTTATTTAATTGAAGTTATTGCATTTTGTGTTT

				CTATCACATTGTCCTTAGCATTATTTATCACATATTGATTG ATTCGCTCGAAACTCTTTTTTTTTCCAGGTTGTGCAAGATAT GATATGCTGTCTGGACAATCCGGAGCTTCCTTTCCTACAGT GGGATGAACTTATGTCTGTTCTAGCAACTAGACTTCCAAGA AACCTTAAGAGTGAGGTATAAGACAATTACCAAAATGTAG CCAATCTGGGTAAATGAAAGACGATTCATTTTACTGTGTA TATTATCTTAATTTTACATATTGGCTTATGTTGATGACAGAA AAGTTTGGTATCACCAGAGTAAAACCGTGATATTTTGTAGC ACTGGTTTGCAGTGTGTTACGTGCATTAAAGTCTATAGTGT GCTGTAGTTTATTATGTAAAATTAAGTTGTATTCATGTGCT AAAATTTAGAATCTTTCACCTTAGCATCTTAATAGATAGAA GCTGAATCTTCCAGTAAGTTTTGTTTAGTTTCTTGATTGTA GGTCTCTTGATGTCTTGCATAACCCTTTTTCACTTAGAT CTGATGGTTCTATCTTTTATTATGCAGTTAGAGGATAAATA CCAGGAATACAAGCTGAACTTTTACCATGGGAAAAATAAG GACTTCCCATCCAAGTTGCTGAGAGACATAATTGAGGTCA GTTTTAGATTTCTTAGTCGTATTAATTTTAACTGTTTGCTT ATTTTAACAATTTTTTTGTAGGCAAATCTTGCATATGGTTCA GAGAAGGAAAAAACTACGAACGAGAGGCTTGTTGAGCCT CTTATGAGCCTGCTTAAGTCATATGAGGGTGGAAGAGAAA GCCATGCTCATTTTGTTGTCAAATCCCTTTTCGAGGAGTATC TTGCTGTGGAAGAACTTTTCAGTGAT
74	Digitaria sanguinalis	gDNA Contig	1983	GACTGAAGAACCATTATTTCTTACGTGTTTGTGAGCTTCAA ATACAGGTGTCGTTGCTAACATTAAATATGTATCTCTTATTT CTCAGGAAGCATCAAGCAGGAGCTCAAGCGTTGTTACTGA TTATGTTGGTTATCTCAGCAAAGGTCAGATCCCACCAAAGG TATACTATATGCTGAGATGCCCTTATTGCAGATTATGCTTCT TGCTGTTTGACTTAAAGCAGATTGGTAACTGTGTAATTCCT TTCTGATTTGCAGCACATCTCACTCGTCAATTTGACCATTGC TCTAAACATAGAGGGGAGCAAATACACGGTACTCATCTAT AGTTTTTCTCTTAACAGTTTTGTAACCTACCACTGAGTGTCT TTGAGAAAAAACTAAATGTTAAACTTTGATGTAGATCGAG ACTGTGAGAGGTGGACCCCGCAGCTATAAATTAAGAATGA ATGGATCCGAGATTGAAGCAGAGATACATTCCTGCGAGA TGGTGGACTTCTAATGCAGGTAAATATTGGACCCAACTGTC TCCTTTGTTTTCTGTTGAAAAAAGTTCTGATCAAACTTTGT TGTATATTCTTCAGTTGGATGGAAACAGTCATGTAATATAT GCAGAGACGGAGGCTGCTGGTACACGCCTTCTCATCAATG GCAGAACATGTTTACTACAGGTAAACATGGTATTCTTGTTT TCTTCCACATATTTTTTATGCTGAAACACACTACCTGTTACA TATCTTTACTTGAACTGAAGTTATTGGATCTGGCAATTTTT TACGAATGTTTCTTTCATATGAAGGTCATAGAAATTATAGG TTACATAGAGGGTAGAGAATACAATTTAGGAAGCTACTAT GACGCATAGCCCTAAGTTATATAAATTTGCTTGAACGTAGA TTTGCTTCGTCCTCTTTATGTTTTAGCTTGGCATTTTCCATA ACGGTGGTTGTTCCATGTGTCAAAGCATCTAATGTTAGCTA GTATTCTCAGTTGCCAAAGATAAAAGATATCCCAGTTACCT ACTAGCCCACTAAAAGTTTGTAACAATGTGAAATTTTACTT

				GAAGGAATAAGCAGTTTGGATTGTTTCAATTCTTAACCGTA TTCTCACATCATATGGAAATACATGATATTGTTTTTCTTCT CTTGATTATATTTACAGAAAGAACACGATCCTTCAAAGTT GTTGGCTGATACACCGTGCAAACCTTCTTCGGTTCTTGGTTG CGGATGGCTCTCATGTGGATGCTGATACACCATATGCTGA GGTGGAAAGTCATGAAGATGTGCATGCCACTGCTAGTGCCT GCCTCTGGTGTCACTTCGTTATGCCTGAGGGTCAGGC CATGCAGGTATTATTCCTCTTTATTTTTCTCCCCCTCTGCTCT TGCTTCTTTCATTTTATAAAAACCTTAAATGTATGTTTTCTT TTTTTTCAGGCGAATGACTTAATAGCAAGATTGGACCTTG ATGACCCATCTTCTGTGAGGAGAGCTGAACCGTTTCATGG CTCCTTCCCCAAATTGGGACCTCCTACTGCTATTTCTGGCAA AGTTCATCAAAAATTTGCTGCAAGCGTGAATTCTGCACACA TGATCCTTGCAGGCTATGAACATAATATCAATGAGGTAAG ACATATAATTATTTTAATTTCAAATTAATTTTCATTTTAAAC TTCCCTTTCATTATCTTCATCTGCGAAGAACCCAATTTCATG GTTTATAACACACCACACTATCGCTGAGAGCAATTGGGATT GCGTGGAATAATAGATTGATTAGGGTATACATGATACAGG ATATATAGGCAGCCTTAAGAGGTTTATAGAATCACAGGGC AGCCTTGAGAGGTTTATAGAATCACAACCAATCAAGGATG CCTGCCTTTCCTAACCAACAGAGCACAGCCAGAGGCCAGC ACAAGTCCTGGCACAAATTCCAAGGACCCTACCACATACAC TTCTAACAATCC
75	Kochia scoparia	cDNA Contig	7122	ATGGGCGAGTCCGATTCCTGGACACCAATGTCGAATTTGA CACTTCATCCAAGTCCAAATGATATTGATTCAACATATTGG TGTAACAGTTATAGGAAAAGTGGGCGTATTTTTTGCCAAG GGCAGGGCGGAATGTTATCTAGGGAAGACCCAAATAAGG CAACTTCGGAGGGGAAAAATTGATTACCCCAACAGAACAAC TCTTTGAGGAAATCTGCTACATTACCTGTTGATGAATTAC CTGTTGATGAATTTTGTTATGCTCTTGGAGGGGAAAAGACC GATTCGTAGTATTTTGATTGCAAACAATGGAATGGCAGCT GTTAAATTTATAAGAAGCATTTCGGACATGGGCTTATGAGA CCTTCGGAACAGAGAAGGCTATTGTATTAGTAGCAATAGC TACTCCAGAAGACATGAGAATCAACGCTGAACACATTCGA ATGGCTGACCAGTTTGTTGAGGTTCTGGTGGGACTAACA ACAACAACCTATGCCAATGTGCAGCTCATTGTTGAGATGGC AGAGATGACACGTGTTGATGCTGTTTGGCCAGGCTGGGGA CATGCATCGGAGAACCCTGAGCTTCCAGATGCACTAAACG CGAAGGGGATTGAATTTCTAGGGCCTCCAGCTAAATCTAT GGCTGCTCTTGGAGACAAAATTGGTTCATCATTGATTGCTC AGGCCGCAGATGTTCCAACCTTCCATGGAGTGGCTCTCAT GTGAAAGCTCCTGCTGAGAGTTGCCTTGATTCTATTCCTGA TGACATATACAAGGCAGCCTGTGTTTTTACCACAGAGGAA GCAGTTGCTAGTTGTCAGGTTGTCGGTTATCCAGCTATGAT TAAAGCATCTTGGGGTGGTGGAGGGAAAGGAATAAGAAA GGTGCATAATGATGATGAAGTAAGGGCATTGTTCAAGCAA GTGCAGGGCGAAGTTCCTGGCTCTCCCATATTTATAATGAA GGTGGCTTCACAGAGTCGACACTTAGAAGTGCAGTTAATT

				TGTGATCAATATGGCAATGTAGCAGCATTACATAGCCGTG ATTGCAGTGTCCAAAGGCGGCACCAGAAGATTATTGAAGA GGGTCCAATAAATGTAGCTCCCCAAGAACTGTGATAAAA CTTGAGCAGGCAGCCAGAAGGTTAGCCAAATATGTGAATT TTGTTGGAGCAGCAACTGTAGAATATCTATACAGCATGGA AACTGGCGAGTTTTATTTCTCGAGCTAAACCCTCGGCTAC AGGTGGAGCACCCAGTAACTGAATGGATTGCTGGAATTAA CCTTCCAGCTGCTCAGGTTGCAGTTGGCATGGGTATTCCCC TCTGGCAAATTCCAGAAATTCGGCGATTCTATGGTAAGGA ACATGGTGGGGGTTATGATGCTTGGAGAAGAACATCAATT GCTGCGACTGCTTTTAATTTTGACAAGGCACAATCTGTGAA ACCGAAAGGTCAGTGTATTGCCGTACGTGTGACAAGTGAG GACCCTGATGATGGATTCAAGCCCAGTGGGAAAGTAC AGGAGTTGATTTTCAAAAGTAAACCAAATATGTGGGCCTA TTTCTCTATAAAGTCTGGGGGAGGCATTCATGAGTTCTCAG ATTCTCAATTTGGTCATGTCTTTGCATTTGGTGAATCAAGA GGGTTGGCCATAGCAAATATGGTTCTTGGCTTGAAAGAAA TTCAAATTCGTGGAGAAATTCGCACTAATGTTGATTATACC ATTGATCTTTTAACTCTTCGGATTACAGAGATAATAAAAT TCATACAGGTTGGTTAGATAGCAGAATTGCAATGAGAGTG AAAGCGGAAAGACCCCCCTGGTTCATCTCTGTTGTGGGAG GAGCACTCTACAAAGCTTTTGCTAGTAGTGACAGCTACAGTT TCAGAATATGTTGGCTATCTTGAGAAAGGTCAAATTCCTCC AAAGGTAATTCAAGCACCATGCTGTTGAGCATATATCA CTTGTCCTCTGAAGTTTCTCTGAATATTGAGGGGAGCAA GTACACTATTAAAGTGGTGAGGGGCGGTCCAGGAACTAC AGATTGAGATTGAATGAGTCTGAGATTGAGGCTGAAATAC ATCCATTAAGAGATGGGGGTCTTTTGATGCAATTGGATGG GAAAAGTCACGTGATATATGCTCAGGAAGAGGCAGCAGG AACTCGCCTTCTTATTGATGGACGAACGTGTTTGCTTCAGA ATGATCATGATCCTTCAAAGTTAATTGTGGAAACACCTTGT AAGCTACTGCGGTATCTGGTTCAGATGATAGTCATGTTGA TCCAGATACTCCTTTTGCTGAAGTTGAGGTTATGAAGATGT GTATGCCTTTGCTTTCCCTGCATCTGGTAAAATAAGATTTA AGATGTCCGAAGGACAACCCATGCAGGCTGGCGAACTCAT AGCAAACTTGAGTTGGATGATCCTTCAGCTGTAAGAAAA GCTGAACCGTTCCGTGGTAGTTTTCCAACCTTGCATCCGCC AACTGCTATCTCAGAAAAGGTTTCATCAAAAATTTGTTGCAA GTTTGAATGCAGCCCAGATGATTCTTGCTGGTTTTGAACAC AACATAGATGAAGTTGTCCAGAGTTTGTTGAGGTGCCTTG ATAGTCCTGAACTTCCTTTCTTGCAATGGCAAGAATGCTTG TCTGTTCTAGCAACACGGCTTCCCAAAGATCTGAGAACTGA ATTGGAATCAAAGTGTCGAAAATTCACAGGAATTACGAAT TCTCATAACATTGAATTTCTGCTATGGTGTTTAAAGGTGTT CTTGAGGCCCATTTGAATTCATGCCCTGAAAAGGAGAGAG GAGCTCAAGAGCGGCTCATTGAACCTCTAATGAGTCTTGTT AAATCCTATGAAGGTGGGAGAGAGAGTCATGCCCATGTTA TTGTTCACTCTCTGTTTGAAGAGTATTTGTCTGTTGAAGAA
--	--	--	--	--

				TTGTTCAAGTGTCAATATCCAGGCTGATGTGATTGAACGTCT CCGCCTTCAACATAAAAAATGATCTATCAAAAGTTGTTGATA TTGTCCTATCACATCAGGGTGTAAAGAATAAAAAATAAATTG ATCCTCCGGCTCATGGAACAACCTGGTTTACTCAAATCCTGC CGCATATCGGGATAAGCTTAAACATTTTTCAAACTGAACC ATAAAACATACTCTAAGTTGGCTCGTAAGGCAAGTCAATTG CTTGAACAAACCCAGTTGAGTGAACCTCGTTCTAATATTGC CAGAAACCTTTCCGAGTTAGAAATGTTTACAGAAGACGGT GAAAGCATGGACGTTACAAAAAGGAAAAGTGTTATTAATG AACGTATGGATGCTCTTGTTAATACTCCGCTTGCTGTTGAA GATGCCCTTGTTGGCTTGTTGATCACAGCGATCATACATT ACAAAGGCGGGTTGTTGAGACTTATATCCAGAGGCTTTAT CAACCTTATCTTGTAAGGGAAAGTGCAAGATGCAGTGGC ACCGATATGGCCTCATTGCTTCTTGGGAGTTCATGGAGGA GCACATTGAAAGAGCAAATGCCGCTAATGATTTGTCCATCA ACCAGCCTCTTGCTGAGAACTCATTGAGAGAAAATTGGG AGTCATGGTCATCATTAATCTCTTCAGTTTTTGCCAAGAG TGATTACTGCTGCATTAAGAGAGACCACGGATAATTCAGAT GAAATGATTCCCAGAGGTTCTTTAGATTCAATCAGTCACGG AAATAAGTTGCACATTGCACTTGTTGGGTGTTAATAACCAGA TGAGCTCGTTGCAGGATAGTGGTGATGAAGATCAAGCTAA AGAGAGAATTAATAAGTTGGCGAAAATCCTGAGAGAGAA AGAAGTGAGCTCAGTTCTTCTTAACAGTGGTGTTGGGGTA ATTAGTTGCATTATACAGAGAAATGGAGGAAGAATCCCAA TGAGGCATTCATTCTATTGGTCAGAAGAGAAACAATACTTT AATGAAGAGCCTTTACTACGTCATTTGGAACCTCCTCTATC AATATATCTTGAAGTGGACAAGCTCAAACACTATGAAAATC CCAGATATACTCCTTCTCGGGATCATCAGTGGCACCTGTAT ACTGTCATGGACAAGCCATCTATTCGACGAATGTTTTTGAG GACACTTGTCAGACAGCCACCTCCGAGTTTAGCGGGGTT GAACTAGAAATGCTTAAACACAAAGGCCTATCTCCTTTAC TTCAAGAAACATACTGAGGTCTTTAACAACCTGCAATGGAA GAATTAGAACTCAATGCGCACAATGCTACCTTGAAACCTGA TCATGCTCATATGTACCTGTGCATTGTAAGAGAGCAACGAA TTCAAGATCTTGTCATATCACAGGGAGGTGAACATTGAT GATGAACAAGAAGAGATAACTGTTTCAGATATATTTGGAAG AGCTTGCGCGTGAAATCCACAGTTTTGCTGGTGTGAGAAT GCATAAACTAAATGTATGTGAGTGGGAAGTAAAGCTTTGG GTGTCATCTTCTGGCCAAGCCAATGGTTCATGGAGAATCAT TGTTAATAATGTGACTGGTCATACATGCACTGTACATGTTT ACCGTGAGTTGGAGGATAACAACCTTCATGAAATGATCTA CCATTCAATATCTGTTCAAGGTCCTCTCCATGGAATACCAG TGAATGCACCCTATCAACCACTTGGAGTCATTGCCCCGTAAA AGACTTCAGGCCAGGAAAAATAGCACAACTATTGTTATG ACTTCCCACTGAAAGCTGAAATCACCTTGGGGACGCATGT GAAGCTTACCGCCATCCCCGGAGACGTCCCCAAAAGTCAA CGCCGTTCCCGGAAGTCAATGGCGTCCCGAGGACGTCCCC AAGCCGTCCCCGGCGCGTTTCCGTCCCCGTTCTGTCCCCGG
--	--	--	--	---

				CTTTCTCTACTGCCTTGGAGCAATCATGGGCATCCCAACCT CCGCTGCTGAAGAAACCCACAAACAAAAAAGTTTTGAAAG TCTCAGAGCTAGTATTTGCTGATGCAAATGGCACCTGGGG AACACAAGTTGTCCCAACAGACCGTGAACCTGGTCTTAATA ATATTGGCATGGTGGCCTGGTCCATGGAGATGTCAACTCC TGAATTTCTGATGGAAGGACCATATTGGTTGTAGCAAAT GATATCACCTTCATGGCTGGATCATTGGGCCAAAAGAAG ATGCTCTCTCCGGGCAGTTACAGATCTTGCTTGTTCCAAA AAAATTCCTCTGATTTACCTGGCTGCTAATTCTGGTGCCCG ACTGGGTGTTGCTGAAGAGGTAAGAGCGTGCTTTAAATT GGTTGGTCTGATGAACTGAACCCTGAACGGGGGTTCCAGT ATATCTACTTGACTCCTGAAGATTATGGTCGTATAGGGTCA GCAGTTATAGCCCATGAGTTAGAACTCCAAAATGGAGAGA CTCGGTGGGTTATAGACACTATTGTAGGGAAGGAGGATG GGTAGGTGTTGAGAACTTATCCGGAAGTGCGGCTATAGC TGGTGCCTATTCAAGGGCATACAAAGAACTTTTACACTAA CTTTGTAAACAGGAAGAACAGTTGGTATTGGTGCCTATCTT GCTCGCCTTGGGATGCGTTGTATCCAAAGGCTTGATCAGC CCATTATTCTGACAGGCTTTTCAACATTAAATAAACTTCTTG GTCGTGAGGTTTACAGCTCACAAATGCAACTTGGTGGGCC CAAGATTATGGGTACAAACGGTGTTGTTCAATTAACAGTTT CAGATGACCTTGAAGGCATTTTCATCTATTATCAAATGGCTT AGCTATGTTCCATCCTATTGAGGAGGTGAACTTCCTATTTC ACGTTCTTTAGATCCTCCAGAAAGACAGGTTGAGTATTTGC CTGACAATTCTTGCGATCCCCGTTCTGCCATATCTGGTACA CTTGACTCTGATGGTAATTGGCTTGGTGGAAATTTTCGACAA AGATAGTTTTGTTGAAACCCTACAAGGCTGGGCAAGGACA GTTATCACTGGCCGCGCCAACTTGGTGGAAATTCAGTTG GGATAGTTGCTGTTGAGACACAACTGTGATGCAAGCTAT CCCAGCTGATCCTGGTCAGCTTGATTCTCATGAGCGAGTTG TCTCACAAGCTGGACAAGTATGGTTTCCGGATTCTGCAACT AAGACAGCACAAAGCTTTGATGGATTTTAACAGGGAAGGAC TTCCACTTTTCATTCTAGCTAACTGGAGAGGGTTCTCTGGA GGGCAAAGGGATCTCTTTGAAGGGATTCTTCAGGCAGGTT CCACAATTGTCGAGAACCTTAGGACTTATAATCAACCTATT TTTGTTTATATCCCCATGATGGGTGAACTTCGTGGTGGCGC GTGGGTTGTCGTAGACAGTCGAATCAATTCGGACCAGATT GAGATGTATGCTGACCAGACAGCAAAGGAAATGTTCTTG AGCCAGAAGGAATGATTGAGGTGAAGTTTAGAACCAAGG AATTAATTGAATGTATGGAAAGGCTTGATCAACATCTTATC AATCTTAATGCAAACTTGTTGAAGCCAAAACTCCAATTC ATCGGATGACATCAAACCCCTCAAACAGCAGATAGAAGCT CGGCAGAAGCAACTTTTGCCTCTATACTCAAATAGCCAC AAAATTTGCTGACTTGATGATAGTCCTTATAGAATGGCTG CGAAAGGAGTTGTCAAGGAAGTCCTGGATTGGAGCAATTC TCGCTCATTCTTCCACAAAAGACTGTACAGGAGAGTAATG GAGGAATCACTTGTCAAGACTGTCCGAGATGCTGCTGGTG AAGCAATGACCCACAAGTCTGCCTTGGAGTTGATCAAGCA
--	--	--	--	--

				ATGGCTTGCTGAGTCTGCCATGGATAGTACTACTAGAGCG GGAGCTGATGCTTGGGCTGACGATGAAGCTTTCTTCAGGT GGAAAGAAAATCCTGCTAATTATGAAGAAAAGCTAATTGA GTTACGCATACAGAAAGTATTGCATCAGCTTTCAAATATTG ACAACTCAGCTTCTGATCTGAGAGCTCTTCAGCTTCGTCAG GGTCTTGTTGCCCTACTTCAGAAGGTGAATTCCTCAAGCCG AGCAAATCTAGTAGAGAACTCGAGAAAGTGCTCAATTGA
76	Kochia scoparia	gDNA Contig	17930	ACTTTGTAGTTTGTAGTTTGTAGTGTGCAGTGTGCAGTGTG CAGTGTGCGATTAAAATTTGACTAATGCTAATGCTTCCCTA AAATCTCTCCTAAACATGTGAATTTCTTAAATTACCACCGC AAATCCATTCAATACTTAGAATTATTCCTTGAATTCGATC CTACTCTTCAGTTTCATAGTTTCAACACTCTTTTATTTAACT TCCTACAATCGTCGTTCTCTTTTTTTTTTTGTTTTCTTAGG CTTCAAATGCAGTATTATTATTATTATTAGTTTTCTTAT TTTACAACTAAATTTTCATTTCAACACTCAGAAAATTTAAGA TGATTCCAATTTCTGAGCGTTGTCATGTTGTTAAATTTCTA TACTCAAATCTTCTTCTCATTGCCGTCTCTTATTTACAGTG CAAATGGGACTATGAAATTTCAACTCAAAAAGAGGTATTTT CATTTTCATTTCTTAGTGTCGATTTTCGTAATTACGTTGATT TTTGTGTGAATTGTATACTAGTATTACAAAGGATCCATGAT TACATCGTTCAATTGGCATAGATGATGAAATTGTTAGAAAT TTTCGTGCAATTTGCAATGCTTGCTTTCATGATTATTTGTGT TGTTGAAGGGAAATTCTTAATCAATCTCGAGATATGTATTT CGGGTGACATTTTCGTAAATGAACAAAAAACCTTCAAGGA ATTTATTTCACTTTATTTACGAGAATATACATAGCTTGAGA TTGTTTAAGAAATTCCCGATTTGGAGGTATCACTTAGAATA TATATATATATATATTTTATTTTATTATTTAATCATGGAAA ACGATATATACTCGCTAACTCGCATTGGAATTCACAACTTTT GTACATTGTAGCTTTCTTTCTAGGATGCATAAAGAACTTGA CACTACCAACTAACCGGTGTTTACGATGAATCATACCCTTT TCTTTGAGCTGATTTTGGGATGTGTCTTTTATATTGGGGTT GGTTTTTGGTAGTGTGTAGTTGAGCTAAATTAAAGCTCTCT TTGGTAAGAAGTAAAATTTTTTTGATGCAAAGTGTTTTCGA CAATTTTCTAATTTTATATTGTTTGGTTGACAAAGGAGTGT AAAACCATTTTACATGGAAAACCTTTCCAACAATATTTTGT CACTCTTGTGGCTACCTCTTTGCACTCCTTCATTTTCGCTATT TCCCATATTGTTTATGATGCAATCAAATAATGGAAAATTGC TTCCATGTAAATTGCTTTCCATTCTAAATTGTTTTCTTGAA AATCATTTTACATTGTAAATATTTTACGCCAAACCAAATTG ACCCTAGGAGTAATATAGTGTGAATTTATCATATTGTTATA TTCGGTAATGCATACTAGATAATTGTGGTTCATTTTAGTTG TTACTTACTCTTCTAACTGTCGAGTGATTAATACAAGTATGT GTAGTCCAAAGTATTTATATTTTTTAAAATTAATAAAAAAATT GCATTAGATTGTTGGCTCTTGAATTCTACTTGACTCTTGAAT GTATGAGTCAAAATAAAACAATTATTAGTATGTAGCTTTTA TACCATAATAGTTCTGCATTTCAAACAACAGTATGTTCTAT TCCTTTTAGTATAAATTAATTCTCTCTTCTCTGTTAATATTG TAGTTGTGTGGTAAAATATGTTAATTACCCAATTAATAAAGC

				TGCAATCTTGCAATAATATGAGTATTGCTTATGATAGTAGC TCATGTGTTTCAAAGCTTGTATCATTTTAGTAAGACTATTTG TTTTATGTAATACAAGGTTGTTGTAGCTTGATTACTTTTGAC ATGTAGAATATGCATATCGTGTGAAAATTGGGAATGCTAT TCATGTGATAAATTACTCGTACTCTTTCATTTATCTCACGTG GGCTGTGTCGACACGACTTGTGTCGGACAACACCGACACG CGATACTTCAATCTTTTAACTTTAAACACTACTTTTTTCAAG AAAATGGGCGAGTCCGATTCTTGGACACCAATGTGCAATT TGACACTTCATCCAAGTCCAAGTAACATAGTTCATGTGATA TGATGTGATTAGCATGCTGATCAGTGTTTTATTAGATGATA TTGATTCAACATATTGGTGTAAACAGTTATAGGAAAAGTGG GCGTATTTTTTGCCAAGGGCAGGGCGGAATGTTATCTAGG GAAGACCCAAATAAGGCAACTTCGGAGGGGAAAAATTGATT ACCCCAACAGAACAACTCTTTTGAGGAAATCTGCTACATTA CCTGTTGATGAATTACCTGTTGATGAATTTTGTTATGCTCTT GGAGGGAAAAGACCGATTCTAGTATTTTGATTGCAAACA ATGGAATGGCAGCTGTAAATTTATAAGAAGCATTCTGGAC ATGGGCTTATGAGACCTTCGGAACAGAGAAGGCTATTGTA TTAGTAGCAATAGCTACTCCAGAAGACATGAGAATCAACG CTGAACACATTCTGAATGGCTGACCAGTTTGTTGAGGTTCT GGTGGGACTAACAAACAACACTATGCCAATGTGCAGCTCA TTGTTGAGGTAAATCCTATTTTACTAACACTGATCTTCATTG TTTTCTCTGATAGAATATCGGTTTATAAGAAAAGTTATAAC CTTGCTTGTTGGCCTGTTGATGTGGTTCACATTAAACAACC TTGGTTCATCATAGGTAGTTCAAGCTCCAACAGTTCATCGT TAACACACATTAATTCAAGTATCTGTTAATCATTGATCTCAG AGGGTAAACCATTGTTAAAAGGACTTCAATTTATTTTCACT GCTTTTCAGATGGCAGAGATGACACGTGTTGATGCTGTTT GGCCAGGCTGGGGACATGCATCGGAGAACCCTGAGCTTCC AGATGCACTAAACGCGAAGGGGATTGAATTTCTAGGGCCT CCAGCTAAATCTATGGCTGCTCTTGGAGACAAAATTGGTTC ATCATTGATTGCTCAGGCCGCAGATGTTCCAACCTTCCAT GGAGTGGCTCTCATGTATGCATTGATTTTCTTATTGACCTT GACAAGCTTTCTTTTCTCGAGGAGTTTGCTAATCCGTTTTCT TTAAATTTCTAATCTTTAGGTGAAAGCTCCTGCTGAGAGTT GCCTTGATTCTATTCCTGATGACATATACAAGGCAGCCTGT GTTTTTACCACAGAGGAAGCAGTTGCTAGTTGTCAGGTTGT CGGTTATCCAGCTATGATTAAAGCATCTTGGGGTGGTGGGA GGGAAAGGAATAAGAAAGGTGAGCTAGTTGTTTGGGATG ATGTCGTCAAGAAATTAAAGCACCGGCTTCAATGCTTATTT ATCACCTTTTACAGCTTCCATCCTTGGACATCCTTTTAAT TAACTGTCCATTAATATTTACTTGACTTAAATGATGGACAA ATGCTTCAAACCTTGTTAGTTAGAGACCCGTTGTGCTATTTT AATTACAATCGTCTTTCTCTCAAATATCACAAAGACTCAAT AGTTATGCATTTTCAGGTGCATAATGATGATGAAGTAAGG GCATTGTTCAAGCAAGTGCAGGGCGAAGTTCCTGGCTCTC CCATATTTATAATGAAGGTGGCTTCACAGGTTAGTTATTCT GCAAATTGGTGCTAGAATGTATCATATAAGTACTCACAAAGT
--	--	--	--	---

				CCATGGCACTCATGATTTTAGAAGTACTGTATGCAAAA TTCTTTGATTTTGACAAGTTATTATATGTGCTTCAGAGTCGA CACTTAGAAGTGCAGTTAATTTGTGATCAATATGGCAATGT AGCAGCATTACATAGCCGTGATTGCAGTGTCCAAAGGCGG CACCAGAAGGTGGGTCACTAGTGTACTATCAATAAATTTTT AATCTTCTTGACCAGTTTTGTATTACTTAGGGTCTAAAGTTG TTTTTTTCATAGAGAATCGTGATGCTCATTGTTTCATTGAAG GAATGTATAAATGATCTTGTTTCATTGTATTAATTGATCAGA TTATTGAAGAGGGTCCAATAAATGTAGCTCCCCAAGAAAC TGTGATAAACTTGAGCAGGCAGCCAGAAGGTTAGCCAAA TATGTGAATTTTGTGGAGCAGCAACTGTAGAATATCTATA CAGCATGGAACTGGCGAGTTTTATTTCTCGAGCTAAACC CTCGGCTACAGGTATGAAGCATACTTGCACATTGTATAT TCATATTTACCTCGAATAATTACTCAAGAAAGAAAATGTTT TATGTCAATATTTATGGCATTGCATCTCAATATCCTTTGGAT TTATCGTTTTCTACCTTACGTTTGTGGCTCACTTTAATATGA CTTGCTTTTGTTAAGGAGCCTTGGGATTTCTTAGAGTGAGA TATGACACTCTTGCCTTTCACTTTTGTGAACCATGTCTGAT ACTCCCTCCATTTCTTTTGTGTTGTTTGATTTATATCTTGAGG GGTGATATTATTCATAGGTAGAGAGATTCCTCTAAATTTAT AAGATGAGACATAGCTCTGAGGGGTCTTGTTGAATTCATC TTGATGAGTACTTTAAATCAAAGCCTTGATGAGTACTTCAA TAATATTAAATTTTAGAATTTTATTCTTATATAGTTAAAG ATACTAACAATAAAATTTGCTCCAACAATGTGTGATAA TGAATCGGGACAAAAGAAGGGAATGGAGGGAGTATTACT AAGAATTAGCAATCCTATATGATCATGTGATGGATGAAAA AATCTTATTGAAGACTTTTCTGATAATATTGTATATAATGTC TGACATATGTGTAGGTTTTATTATATTTAATTTTAAAAAATT CCTGTTTGGAATCCGGTTAATTTTATTGGTTATTTATCTA ATTCCTTCTTTGTTTCGCTTTGATAAATACAGGTGGAGCA CCCAGTAACTGAATGGATTGCTGGAATTAACCTTCCAGCTG CTCAGGTTGCAGTTGGCATGGGTATCCCCTCTGGCAAATT CCAGGTAGCTAGCATGTTCCCTTTCTGATTATCGAACTTAT GTGCTTCATGTTGTTCTTGTGCATGATTGTGCTTGCTTTTGA ATTATCAAAATAGAAATTCGGCGATTCTATGGTAAGGAAC ATGGTGGGGGTTATGATGCTTGGAGAAGAACATCAATTGC TGCGACTGCTTTTAATTTTGACAAGGCACAATCTGTGAAAC CGAAAGGTCACTGTATTGCCGTACGTGTGACAAGTGAGGA CCCTGATGATGGATTCAAGCCCACTAGTGGGAAAGTACAG GTTAGTAATACTAGTGTTTAACAGTTCAAACACTACTCTCA ATTGACTGCCTTGTCTGTTTTGTGATTCATGTAAAATTATTT ATTCATTGGTTCCTTTTCTAGGAGTTGATTTTCAAAGTAA ACCAAATATGTGGGCCTATTTCTCTATAAAGGTATGTCTTT ATTCTTCAATTTTACATCATCCTTTTATGGATTCATCCACG AGCTTAACAATGATCAACATTGTGACGCAGTCTGGGGGAG GCATTCATGAGTTCTCAGATTCTCAATTTGGTAAGTTTAAA GCACATTTTAAAGATGACTAGCAATGAAATGACAATTATA GCTGCCTTTTAAAGATGAAGTTCTTCAACATCATATTAGGG
--	--	--	--	--

				GTTCTCTAATTTAAGTCTGCTGCAAATGGATAAGGAACTAT GCTGTTGTACATGTGAAATGAGATATATTGGTTTTTCGTAG TGTGTCACAGCAGACGGTAAATGCTCTTGTTAATTGTTGAT GATTAATTGGGATTTAGCATTTCATGGTGTAACTGCTCTTG CACTATCAAGTCTCATGGAATTAACATGTCATTTTTTTTATC GATTATTTTTGGTTTTAAAACATCCTTTATCTATTTTTTTTAT TTTTTTTATAGAAGGCTAATGTTAGTTAATTTGTTTGTAGGT CATGTCTTTGCATTTGGTGAATCAAGAGGGTTGGCCATAG CAAATATGGTTCTTGGCTTGAAAGAAATTCAAATTCGTGGA GAAATTCGCACTAATGTTGATTATACCATTGATCTTTTAAAC GTGAGCCTTGTACATGATTTTTTTTCTCCCTACACTTTCCA CTGTTTTTTCAATTAGAAGCTAACTTGTCTTCGTTTTTCCTT TCTCCAGTCTTCGGATTACAGAGATAATAAAATTCATACAG GTTGGTTAGATAGCAGAATTGCAATGAGAGTGAAAGCGG AAAGACCCCCCTGGTTCATCTCTGTTGTGGGAGGAGCACT CTACGTATGTACAACTTTTTTTCTCTAAAATTTGTTTCCTTCC AAAAGATTCACATGTCATTTTTTCGTCTTTTTTATAACGAAT AATTTTAAATGATTTCTCTCTTCTTCTCCCTATCTTCAGAAA GCTTTTGCTAGTAGTGACAGCTACAGTTTCAGAATATGTTGG CTATCTTGAGAAAGGTCAAATTCCTCCAAAGGTAATTCAAG CACCAGATGCTGTTGAGGTATACTGGTTTTTTTAAACACTA ATTGTTTCTTTCAGTAAATTACATCAATTTTTGTGTGGATTG CAGCATATATCACTTGCCACTCTGAAGTTTCTCTGAATATT GAGGGGAGCAAGTACACTGTAAGTATATTATAACTGA TGTGAATTTTATATTTCATTTTTCGATTTTCGTCTGTTTTCTTG TTAATCATCATAACATGGTTAATGCTGTTCTCTAGATTAAA GTGGTGAGGGGCGGTCCAGGAACTACAGATTGAGATTG AATGAGTCTGAGATTGAGGCTGAAATACATCCATTAAGAG ATGGGGGTCTTTTGATGCAAGTAAGAACTTAACTTTTATTC ATTCATATATTCATGATTGAGGGCAATTGTCAAATTATACA CATATAGGAGTTATAATATGTGTAGAGTTAAAATTGCGAG TGAAAGCTGAGATATTACTCGATGTATTTAGTATATCATTC ACCATAGAATGCTTGAGTTACTTGCGTTAAATTAAAAAAA AAAGGAAAGAGTAGAAATTAGAGAGTCTAAAGTTTCTGTG GTCATAATGATATGTCTAATTGAACGCACCCCAATGTGTTT CAGTTATTTTTTTACCCCTAACTTAGGAGGGGAAAACCTGACT TAGCGGCTTCCCCTCTAGCATAGGATATAAGTGCTCCAAAC TCTTAGAATATCTAAATTTGAAAACTTATAATGTATTATTG ACATTCTTTCAGAGAATGCTTTTCTGTGTGAACTCCTTAAGT ATGTTAATAGCAATCCCGCAACCCTGTTTCACATTATATAG GTATTTGTTTCTTATTAGATGATATTCCATATCTCCATATAA GATCTTTCTTCTTACCAATTCAAGCCATATATTTTTTGATT AAGAAGATGATATTCACAAAAGGTTTGCGTTATGATGATA CTTAATATACCCACATGTTTCATATTTTCATTGACTTAAACG CTATTTCTTAGAAAAGTTGGAGTTGTTGATCCAATGTATGT GCTGGTTTCTCATCCCTTTGTTTTCAATTAGCTATGGATTTT GAGCTCTTCTGTACATTTGAATGTGATGTAGTTGGATGGG AAAAGTCACGTGATATATGCTCAGGAAGAGGCAGCAGGA
--	--	--	--	--

				ACTCGCCTTCTTATTGATGGACGAACGTGTTTGCTTCAGGT ACCATCATGTTATTTAATTGCATAGTATTTCTAAACATTTAC CAAGCGTAACATGCTATTACATTTTCCACTTCTTCAATATTC AGAATGATCATGATCCTTCAAAGTTAATTGTGGAAACACCT TGTAAGCTACTGCGGTATCTGGTTCCAGATGATAGTCATGT TGATCCAGATACTCCTTTTGCTGAAGTTGAGGTTATGAAGA TGTGTATGCCTTTGCTTTCCCTGCATCTGGTAAAATAAGA TTTAAGATGTCCGAAGGACAACCCATGCAGGTTAGCATAG GTTTTAGTAGATCGATATGTTAACTAAATATACTTCAAAAG TTTCTTCTAAGTGAAGGTTCACTGTGTAGGCTGGCGAACTC ATAGCAAACTTGAGTTGGATGATCCTTCAGCTGTAAGAA AAGCTGAACCGTTCCGTGGTAGTTTTCCAACCTTGCATCCG CCAACTGCTATCTCAGAAAAGGTTTCATCAAAAATTTGTTGC AAGTTTGAATGCAGCCCAGATGATTCTTGCTGGTTTTGAAC ACAACATAGATGAAGTAAGTATTTTAATTGTGAATTCAAAA ATATTGAGCACTATATTATATAGATGAAGTATTTTCAGTTAT GAATTAAGCATAGATGATGTGAGTATTACTCTAAGGGGGC TGATGCAAAAATTTGAGAGTAAATGTATATTTATATTTTGT TTGGTTCCCTTATCTGAAAGATTCTTTACAAAAGAGTTTTCT AATTCTCAGGTTGTCCAGAGTTTGTTGAGGTGCCTTGATAG TCCTGAACTTCCTTTCTTGCAATGGCAAGAATGCTTGTCTGT TCTAGCAACACGGCTTCCCAAAGATCTGAGAACTGAAGTA TGTTACTAAAATCTGTATGCAATTTTTTTCCATATTTGATAA ACACCTGCTGTCTTTAGCAGTCTTTATCTTCTTTGGTCTTTCC CTCTCTCTCTCTCTCTCTCTCACCTGTGTATAATTCACAT TATTTTCCATGTTTCCCTGTCTTTGGTATTCTCAGTTGGAA TCAAAGTGTCGAAAATTCACAGGAATTACGAATTCTCATAA CATTGAATTTCTGCTATGGTGTGTTAAAGGTGTTCTTGAGG TTAGTCTTTCTTTTGCTACCCTTCTATATATGCTATATATT TAGTATTACTTACATAAGTATTTTGTGTTACAGGCCCATTTGA ATTCATGCCCTGAAAAGGAGAGAGGAGCTCAAGAGCGGC TCATTGAACCTCTAATGAGTCTTGTTAAATCCTATGAAGGT GGGAGAGAGAGTCATGCCCATGTTATTGTTTCAGTCTCTGTT TGAAGAGTATTTGTCTGTTGAAGAATTGTTTCAGTGTCAATA TCCAGGTTTGTTATTGCCGTGCAAATTAATCAGTTTATCGA TGATCATTGGTCTTTATGTTTTTTCCTCGATTGGTAGATTGG TTATGATGTTATGACTCTAGAGTAAAGGTGGAACCAGAAA AATGTTTTGGAGGGGGGCCAAAATATTTGTTTTGTATTATTG GAGGGGGCCGAATACAAAATTAGCTTAATTTTTCCCATAT TTAACCTATTTTTTAAAGAAAAATAAAAAATTGGCGGGAGT CGTGGCCCCCACC CGCCCCCATGTTCTGCCATTGCCCTAGA GGCTACAGAATCTTTGGAGTACCTTATGTCTCAGTGAATTA TAGTAGCATCCTTTGAAGTATTACTTTGTTTTTTCAAGAAAT AGCAGTTCATGTCTTTGGTTGTTGGCTTGTAATTTGTGCAC TGTAATGCAAGCTTAGGACTAGAAGAAACAGTTTATTTATA CGCTATGAATTATGATCCTGGTAGGCTGGCATCGTTCCACT GTAATATGATTCTGATTTCAATCTATACAGGCTGATGTGAT TGAACGTCTCCGCCTTCAACATAAAAATGATCTATCAAAAG
--	--	--	--	---

				TTGTTGATATTGTCCTATCACATCAGGTAAGCAGGAAATTT CAAATAATACAAAATAAAATTTTCTGAGTTTTCTTTTTATTT TCTTTTCTTTTTTTTCCCACTTTCCCTTGTACTGTCTTCTAGA CTTGTTTACTGTGTAGTAATAATGGTTTTTCAGGGTGTTAAG AATAAAAATAAATTGATCCTCCGGCTCATGGAACAACCTGGT TTAACAATCCTGCCGCATATCGGGATAAGCTTAAACATT TTTCACAACCTGAACCATAAAACATACTCTAAGGTTAGAGAT GATTCAACTTTTTGCATTATTGTCACACTACAACATTCACAA AAAGGTCATTAAAGTTTATACACTAATTAATTCCTTCGCTATA TGCAGTTGGCTCGTAAGGCAAGTCAATTGCTTGAACAAAC CCAGTTGAGTGAACCTTCGTTCTAATATTGCCAGAAACCTTT CCGAGTTAGAAATGTTTACAGAAGACGGTGAAAGCATGGA CGTTACAAAAAGGAAAAGTGTTATTAATGAACGTATGGAT GCTCTTGTTAATACTCCGCTTGCTGTTGAAGATGCCCTTGTT GGCTTGTTTCGATCACAGCGATCATACTTACAAAGGCGGG TTGTTGAGACTTATATCCAGAGGCTTTATCAAGTAATATCT AAGTTTCAACATTAACTTTAACAATCATTTGATAATATTAT GTCATTTAACTCTCTTTTTTGTGGGTAACCTCTTTTCTCAGC CTTATCTTGTAAGGGAAGTGTCAGATGCAGTGGCACCG ATATGGCCTCATTGCTTCTTGGGAGTTCATGGAGGAGCAC ATTGAAAGAGCAAATGCCGCTAATGATTTGTCCATCAACCA GCCTCTTGCTGAGAACTCATTGAGAGAAAATTGGGAGTC ATGGTCATCATTAAATCTCTTCAGTTTTTGCCAAGAGTGATT ACTGCTGCATTAAAAGAGACCACGGATAATTCAGATGAAA TGATTCCCAGAGGTTCTTTAGATTCAATCAGTCACGGAAAT AAGTTGCACATTGCACTTGTTGGGTGTTAATAACCAGATGA GCTCGTTGCAGGATAGGTATAGATTCTATCCTTGTAAGTTT AGCAAGATTTTAAATGTGGACATTATTGGACCATCCGGTTT TTTGAAGAAATATGCTTTGCTTCAATTATACAGTTGCTCTT AATATTATCCATTCCAGCCTTTTGCTTAACCTTTTTTGTCTTT GTGGTTTATGAAATTTATTTTTATACTATTCAAGTGGTGATG AAGATCAAGCTAAAGAGAGAATTAATAAGTTGGCGAAAAT CCTGAGAGAGAAAGAAGTGAGCTCAGTTCTTCTTAACAGT GGTGTTGGGGTAATTAGTTGCATTATACAGAGAAATGGAG GAAGAATCCCAATGAGGCATTCTTCTATTGGTCAGAAGA GAAACAATACTTTAATGAAGAGCCTTTACTACGTCATTTGG AACCTCCTCTATCAATATATCTTGAACCTGGTAATAAAATTCT GAGCAAGAAGCTGTTGCTTTGTTTGTTGTTCTTTTCTTGTT TTTAATATGGGCCAAATCATTATCTTTAATATTTTTATCAC TATATGATATAGTTATAAGGTATTTGGCTCACAATTTTCATT ATACAGGACAAGCTCAAACACTATGAAAATCCCAGATATA CTCCTTCTCGGGATCATCAGTGGCACCTGTATACTGTCATG GACAAGCCATCTATTGACGAATGTTTTTGAGGACACTTGT CAGACAGCCCACCTCCGAGTTTAGCGGGGTTGAACTAGAA ATGCTTAAACACAAAGGCCTATCTCCTTTACTTCAAGAAA CATACTGAGGTCTTTAACAACCTGCAATGGAAGAATTAGAA CTCAATGCGCACAAATGCTACCTTGAAACCTGATCATGCTCA TATGTACCTGTGCATTGTAAGAGAGCAACGAATTCAAGAT
--	--	--	--	--

				CTTGTCCCATATCACAGGTTCTAATTAATCATCTTAATTTTC TGTGTTTCATTCTGTTGTCATTGATGCAACTTATGCCTTAATA GATATTATTTTGACCCATTGATCCAGGGAGGTGAACATTGA TGATGAACAAGAAGAGATAACTGTTTCAGATATATTTGGAA GAGCTTGCGCGTGAAATCCACAGTTTTGCTGGTGTGAGAA TGCATAAACTAAATGTATGTGAGTGGGAAGTAAAGCTTTG GGTGTCTCTCTGGCCAAGCCAATGGTTCATGGAGAATC ATTGTTAATAATGTGACTGGTCATACATGCACTGTACATGT AAGTTTGAATTTTGATTATTTTCTCTATAACTTTCTGTACATC AACCATGTTTAGTGATTCTTTCAACACTCTGATATTTATGC CAGTTTTTGTAAGAATTATAGAAATACAGTAGCAATGTTTT GATAGCCCAGGTTCTCTCTTTCTCCCAAATTAATCTTTGTGT CAATGCATGACTTTGCCGCATCAATATCTTAAATAATTTAT GATTATAAACTATAAGAATATGATACTATGAGAAATTGAA AATATACATCGAGAGAAATCTAAATACACCTTCATAACCT TTGATTTATTATTTTATTTTAAATGGAAAAACAATGGGCAA AGGTGATACATGAATCATGTAAAACACAACTTTGATTTTA CATATGGGATGAAGGGACTAGTAATGGTTTGTATATTGGC ACTGACAAAGAAAAGTTTATTCATGATTAATTTACGTCTTG TATACGTGTATCACATAATGTCTTCTTTAGTTTGATGACCTT TTTTCTACTAATGTTATGCAGGTTTACCGTGAGTTGGAGGA TAACAACCTTCATGAAATGATCTACCATTCAATATCTGTTCA AGGTCCTCTCCATGGAATACCAGTGAATGCACCCTATCAAC CACTTGGAGTCATTGCCCCGTAAAAGACTTCAGGCCAGGAA AAATAGCACAACTATTGTTATGACTTCCCACTGGTAAGAA ATATTAACTCCACTATACCCCAATACTACAAAAGCAGAAT TTACTATATTAGGTTTCCTTCCCTCCCGAATTTTTTAAAAA ATAAGAGTTAATACATGACTTGCATTGAGTGTAAGTATGT TCTTATTAACGCTCAACTAGTAATGCAATGGGAATATAAAT CTAAATTCTAAGAGGGAGGTGGGGTTCAGTAACTGTGGG ACTAGGTTGCACCGATACGGGTACGGGGACATATACGGGT ACGGGAACGGGGACGGGAAACGACAATTTTAAAAATTCTT GGGTACGGGGACGGATTTGGGAACGACAATTTATTAAATA TAAATTTTTATTTTAAAAAAAATGAGCATTGTGATCATTTT AATAAAAAAATGCAACAAAATAAAAATCATAGTTAATAC AAATAATTTAGTCCAAAGTAAAAGGCAAGTAGACAACATT TAATTTTTTTTAAACATAACCAGAAAACATAAATTTAATAG GGTAAATAAAAAAATGGTGAAATCCAAAAAATTAAATAAAT GACACAAATAAGCACACATTCACAACCACACATTTACAAAT CACAAATTCACAACCACATAAAATGAATTAAAGTGGAATA GTTTACTGACATGCTTTGGAAGACAATAGAAAAAGTGAAA GAGAAGATTAGAAGAAGAAAGTGAGATTTAAGAAGCCAC GAAGTGAAGCCTAGCGCCATAGTGGAATAGTCAAGCCTCA ACATCGTCGAATAGTGAGCCTTGCGCCATCGCCATTGAG AGTGAGTGGCAGAACCACCGTTTGCCGTCACCGTGGTGTA ATGCATCGTCGTCGAGAGGAAGAGAGAGAGACCCTAGAA TTTGAAATTGGTTTGTTTTTGTGTGCCAAGTGGTTTATTC AACATTCTATTGTAATTTTGTGTGTTTTATAAACTAAAAGAAA
--	--	--	--	---

				GCTGAAATCACCTTGGGGACGCATGTGAAGCTTACCGCC ATCCCCGGAGACGTCCCCAAAAGTCAACGCCGTTCCCGGA AGTCAATGGCGTCCCGAGGACGTCCCCAAGCCGTCCCGG CGCGTTTCCGTCCCCGTTCTGTCCCCGGTACGGGGGACGCT GGCTATGTGGCGTCCCCGTGCAACATAGCTGTGGGACCTT GTAAAGGTTTAAAGTTTGGTGGAGATGCTGGGTTTATAAT TAGTTTAGGACGAACTGCCAAGTTTTCTATTGTATGTAAT TTATTGGTTATGAAAGTAAAAAATCGTGATTGTTATGCAAA TGATTGTACCTATAGTGATTGTGTGACAATGTTGTCAAATG TATAAGCATTGCAATTTTTTTGAGATAAGGGAACCGTAAAT AAAAATACAACGCATGGCTTGGATGTTACCGTCATTACCGA TTTTGTCCTATGTAGTGGTATCTCAAATTTTTATATTTCACT TTGGAGCGATCAACTTGCTTTAGGTGCTAGTATTTATCTGT TTTTCTATGGGAAAATTGACTTGTAATTGTTGGGAATGTTT TTCTTAGGCTTTCTCTACTGCCTTGGAGCAATCATGGGCAT CCCAACCTCCGCTGCTGAAGAAACCCACAAACAAAAAAGT TTGAAAGTCTCAGAGCTAGTATTTGCTGATGCAAATGGCA CCTGGGGAACACAAGTTGTCCCAACAGACCGTGAACCTGG TCTTAATAATATTGGCATGGTGGCCTGGTCCATGGAGATGT CAACTCCTGAATTTCTGATGGAAGGACCATATTGGTTGTA GCAAATGATATCACCTTCATGGCTGGATCATTGGGGCCAAA AGAAGATGCTCTCTTCCGGGCAGTTACAGATCTTGCTTGTT CCAAAAAATTCTCTGATTTACCTGGCTGCTAATTCTGGT GCCCGACTGGGTGTTGCTGAAGAGGTAAGAGCGTGCTTTA AAATTGGTTGGTCTGATGAACTGAACCCTGAACGGGGGTT CCAGTATATCTACTTGACTCCTGAAGATTATGGTCGTATAG GGTCAGCAGTTATAGCCCATGAGTTAGAACTCCAAAATGG AGAGACTCGGTGGGTATAGACACTATTGTAGGGAAGGA GGATGGGTAGGTGTTGAGAACTTATCCGGAAGTGCGGCT ATAGCTGGTGCCTATTCAAGGGCATACAAAGAACTTTTAC ACTAACTTTTGTAACAGGAAGAACAGTTGGTATTGGTGCCT ATCTTGCTCGCCTTGGGATGCGTTGTATCCAAAGGCTTGAT CAGCCCATTATTCTGACAGGCTTTTCAACATTAAATAAACTT CTTGGTCGTGAGGTTTACAGCTCACAAATGCAACTTGGTG GGCCCAAGATTATGGGTACAAACGGTGTTGTTCATTTAAC AGTTTCAGATGACCTTGAAGGCATTTTCATCTATTATCAAAT GGCTTAGCTATGTTCCATCCTATTCAGGAGGTGAACTTCCT ATTTACGTTCTTTAGATCCTCCAGAAAGACAGGTTGAGTA TTTGCCTGACAATTCTTGCGATCCCCGTTCTGCCATATCTGG TACACTTGACTCTGATGGTAATTGGCTTGGTGGAAATTTTCG ACAAAGATAGTTTTGTTGAAACCCTACAAGGCTGGGCAAG GACAGTTATCACTGGCCGCGCCAACTTGGTGGAAATTCCA GTTGGGATAGTTGCTGTTGAGACACAACTGTGATGCAAG CTATCCCAGCTGATCCTGGTCAGCTTGATTCTCATGAGCGA GTTGTCTCACAAAGCTGGACAAGTATGGTTTCCGGATTCTGC AACTAAGACAGCACAAAGCTTTGATGGATTTTAACAGGGGAA GGAATTCCACTTTTCATTCTAGCTAACTGGAGAGGGTTCTC TGGAGGGCAAAGGGATCTCTTTGAAGGGATTCTTCAGGCA
--	--	--	--	---

				GGTCCACAATTGTCGAGAACCTTAGGACTTATAATCAACC TATTTTGTATATATCCCATGATGGGTGAACTTCGTGGTG GCGCGTGGGTTGTCGTAGACAGTCGAATCAATTCGGACCA GATTGAGATGTATGCTGACCAGACAGCAAAAGGAAATGTT CTTGAGCCAGAAGGAATGATTGAGGTGAAGTTTAGAACCA AGGAATTAATTGAATGTATGGAAAGGCTTGATCAACATCTT ATCAATCTTAATGCAAACTTGTTGAAGCCAAAACTCCAA TTCATCGGATGACATCAAACCCCTCAAACAGCAGATAGAA GCTCGGCAGAAGCAACTTTTGCCTCTATACTCAAATAGC CACAAAATTTGCTGACTTGCATGATAGTCCTTATAGAATGG CTGCGAAAGGAGTTGTCAAGGAAGTCCTGGATTGGAGCA ATTCTCGCTCATTCTTCCACAAAAGACTGTACAGGAGAGTA ATGGAGGAATCACTTGTCAAGACTGTCCGAGATGCTGCTG GTGAAGCAATGACCCACAAGTCTGCCTTGGAGTTGATCAA GCAATGGCTTGCTGAGTCTGCCATGGATAGTACTACTAGA GCGGGAGCTGATGCTTGGGCTGACGATGAAGCTTTCTTCA GGTGGAAGAAAATCCTGCTAATTATGAAGAAAAGCTAAT TGAGTTACGCATACAGAAAGTATTGCATCAGCTTTCAAATA TTGACAACTCAGCTTCTGATCTGAGAGCTCTTCAGCTTCGT CAGGGTCTTGTTGCCCTACTTCAGAAGGTATCTCTAAGGTT CCTCCACACACACACACACCCACCCACCAAAAAAACACA CACACACACATTCACAAGAAAAGTAGAATTGCTAGTGAAA TAACTTCATCGTGTTCAATGCAGGTGAATTCCTCAAGCCGA GCAAATCTAGTAGAGAACTCGAGAAAGTGCTCAATTGAT TTGGTAATGATCCTGCAGAAAAACCTCTTGGTATATGGTG GTATGCAAATGCCATATCTGAAAGATTGATTAGGCAAGTT GAGACAGAGACAGGCACAGTTGTAATAATGGGATCTATCA AACCAGAAGACGTTATACTAAGCTCAAAGATGATGGTGA TTTTGACCGTCTTCGTCTCAAATCATTGTAAGCTCAAACA AAACGTATTTCTTTCTCCTTTTCATCTTCTACTGTATATTA TGGTTTAAAATTTGATCTTGATTAATGGGTAATCTTTATAAT TTATCTTTTTTATTATAATACAAGAATGATATGCATATTTT ATTTGTTATTAATTACCAAATGCACTTCAGTTTACATTGCC GGTTTGAAGTTTTGGAAGCAGAATTGGGGTTAGAATGCT AGATATTATTGCTTGTTGATCATTTATTCAGTTACTTACATT GTTTGGTTGAAATCGGAATTAAGAGCACAAATTGTATG GTTTCTAACTCGACTTCACAATAAGAGTATAGATGCTCACT GTTGTGTTGTGTGTTTTGTTTTGTTAAGAAATATTGGTTTT GATTGATGATGCTCCAAGCCTCGAGTGAGCGTGTTGATGA AATAGAGTACTGAATTAAGGTTATCATTTTATCGAATGTC AGATTAATTGTTAATTGTTGCTCGGAGTCGGAGTTTAAATG AGAATCATTTTATCGAATGTCTTAAGTTATCAGGGCAGATA TTTTTTTCTAGTGGGTATGGACTCTTGAGCCTCTTTTTTCT GTATCAAACGTCTGTTGTTGTTCAAATTATGCAATCA TGAAGAGATTACTTTGGTCTCAGGTTTGCTTCGCCATCCTT CCCAATGAATCGTCAGGATTCATTTTCAATTAATCTTATGT ATTCACGGGTTCTTCGTCCCGGTCGCTTCTTAGTTAATGTT CTAGCCCGGAGCCTTGTTGTTGGATGGTTTGATCTACTATA
--	--	--	--	---

				GAGTTCATTTTCTGACTTGTTTGGCATTGTTAATGGGCATT GATACGAGTTGTTTACCGTATTAATAATTATTTATAAAAT TTATCTTAGTCGTTCAAAAATATATACAAGTAATTTAAAATT CAATCTAAAGTGAAGTATAAGTACATATACACATAATATTT ACGCTATTTACAGAATTATACTAATAATCGAATTTAAATAA GTCAATTAGAGTAGTAAAGGAATTAACAAGGTATTTAACT AAAACAATTGATGAGTAAGAAGAACTGATGAATTTGTACT CAAGAACACCCAAACGATACTCCGCTTCAACCTCACGACTC GATGTCATTCTCGTTCGACCTTGAATTCAAGACTAAGCTAC CTTTCAATTGTTGTCTCCTCTTCCAATTGCTCCAATCGAAAA TCCTATCAAACTCTTACTCTCAATTGCTCTCAAAATATCGG CTAAGTTGTGTGTCAACAATAGGTCTATTATGGTCCTGAGA CCATGTGG
77	Kochia scoparia	gDNA Contig	12931	AATAGTAAAAACCTAGTGAACCTTGTAGTTTGTAGTTTGT GTGTGCAGTGTGCAGTGTGCAGTGTGCGATTAAAATTTGA CTAATGCTAATGCTTCCCTAAAATCTCTCCTAAACATGTGAA TTTCCTTAAATTACCACCGCAAACCTCATTCAATACTTAGAA TTATTCCCTTGAATTCGATCCTACTCTTCAGTTTCATAGTTTC AACACTCTTTTATTTAAACTTCCTACAATCGTCGTTCTCTTT TTTTTTTGTTCCTAGGCTTCAAATGCAGTATTATTATTA TTATTATTAGTTTTCTTATTTTACAATAAATTTTCATTTC ACACTCAGAAAATTTAAGATGATTCCAATTTCTGAGCGTTG TCATGTTGTTAAATTTCTATACTCAAATCTTCTTCTCATTGC CGTCTCTTATTTACAGTGCAAATGGGACTATGAAATTTCA ACTCAAAAAGAGGTATTTTCATTTTCATTCTTAGTGTCGTA TTTTCGTAATTACGTTGATTTTTGTGTGAATTGTATACTAGT ATTACAAAGGATCCATGATTACATCGTTCAATTGGCATAGA TGATGAAATTGTTATAAATATCGTGCAATTTGCAATGCTTG CTTTCATGATTATTTGTGTTGTTGAAGGGAAATTCTTAATCA ATCTCGAGATATGTATATCGGGTGACATTTTCGTAAATGAA CAAAAACCTTCAAGGAATTTATTTTCACTTTATTTACGAGA ATATACATAGCTTGAGATTGTTTAAGAAATTCTCGATTG AGGTATCACTTAGATTGTTTAATTTCAATTATTTAATCATGG AAAACGATATATTCTCGCTAACTCGCATTGGAATTCACAAC TTTTGTACATTGTAGCTTTCTTTCTAGGATGCATAAAGAACT TGACACTACCAACTAACCGGTGTTTACGATGAATCATACCC TTTTCTTTGAGCTGATTTTGGGATGTGTCTTTTATATTGGGG TTGGTTTTTGGTAGTGTGCAGTTGAGCTAAATAAAAGCTCT CTTTGGTAAGACGTAAATTTTTTTGATGCAAAGTGTTTTCG ACAATTTTCTAATTTTATATTGTTTGGTTGACAAAGGAGTAT AAAACCATTTTACATGGTAAACTTTTCCTTCAATATTTTGTA CACTCTTCTGGCTACCTCTTTGCACTCCTTCATTTTCGCTATT TTCCATATTGTTTATGATGCAATCAAATAATGGAAAATTGC TTCCATGTAAATTGCTTTCCATTGTAAATTGTTTTCTTGAA AATCATTTTACATTGAAAATATTTTACGCCAAACCAAATG ACCCTAGGAGTAATATAGTGTGAATTTATCATATTGTTATA TTCGGTAATGCATACTAGATAATTGTGGTTCATTTTAGTTG TTACTTACTCTTCTAACTGTTGAGTGATTAATACAAGTATGT

				GTGGTCCAAAGTATTTATATTTTTTAAAATTAAAAAAAATT GCATTAGATTGTTGGCTCTTGAATTCTACTTGACTCTTGAAT GTATGAGTCAAAATAAAACAATTATTAGTATGTAGCTTTTA TACCATAATAGTTCTGCATTTCAAACAACCGTATGTTCTATT CCTTTTAGTATAAATTAATTCTCTCTTTCTCTGTTAATATTGT AGTTGTGTTGTAAAATATGTTAATTACCCAATTAAAAAGCT GCAATCTTGCAATAATATGAGTATTGCTTATGATAGTAGCT CATGTGTTTCAAAGCTTGTATCATTTTAGTAAGACTATTTGT TTTATGTAATACTAGGTTGTTGTAGCTTGCTTGCTTTTGATA TGTAGAATATGCATATCGTGTGAAAATTGGGAATGCTATTC ATGTGATAAGTTACTCGTACTCTTTCATTTATCTCACGTGGG CTGTGTCGACACGACTTGTGTCGGACAACACCGATACGCG ATACTTCAATCTTTAACTTAGAACACTACTTTTTTCAAGAA AATGGGCGAGTCCGATTCTTGGACACCAATGTCTAATTTGA CACTTCATCCAACCTCCAAGTAACATAGTTCATGTGATATGA TGTGATTAGCATGCTGATCAGTGTTTTATTAGATGATATTG ATTCAACATATTGGTGTAAACAGTTATAGGAAAAGTGGACG TATTTTTTGCCAAGGGCAGGGCGGAATGTTATCTAGGGAA GACCCAAATAAGGCAACTCCGGAGGGGAAAAATTGATTACC CCAACAGAACAACCTCTTTGAGGAAATCTGCTACATTACCC GTTGTTGATGAATTTGTTATGCTCTTGGAGGGGAAAAGCC GATTCATAGTATTTTGATTGCCAACAATGGAATGGCAGCTG TTAAATTTATCAGAAGTGTTCCGGACATGGGCTTACGAACT TTTGGAACAGAGAAGGCTATTGTATTAGTAGCAATGGCTA CTCCAGAAGACATGAGAATCAACGCTGAACACATTGGAAT GGCTGACCAGTTTGTTGAGGTTCTGGTGGGACTAACAAC AACAACTATGCCAATGTACAGCTCATTGTTGAGGTAAATCC TGCTTTAGTAACACTGATCTTCCGTGTTTTCTCTGTTAGATT ACGAAATACTCACATTAGCCACAGTGTATGAGAAAAGATA TCACCTGTCCTGTTGGCCTGTTGATGTTTCATCATTGATTTCA GAGGATAAAATTTTGTTAAAAAGACTTCAATTTATTTTCAC TGCTCTTTCAGATGGCAGAAATTACACGCGTAGATGCAGTT TGGCCAGGTTGGGGACATGCATCTGAGATCCCTGAGCTTC CAGATGCACTAACCGCAAAGGGGATTGAATTTCTAGGGCC TCCAGCTATATCTATGGCTGCTCTTGGAGACAAAATCGGTT CATCATTGATTGCTCAGGCCGCAGATGTTCCAACCTCTTCCA TGGAGTGGCTCTCATGTATGAATTGATTTTCTTATCGACCTT CACAACTTTCTTTTTCTCAAGGAGTTTCCTAATCAGTTTTCT TTAAATTTCTATGCTTTAGGTGAAAGTTCCTGCTGAGAGTT GCCTTGATACTATTCCTGATGATATATAACAAGGCAGCCTGT GTTTTTACCACAGAGGAAGCAGTTGCTAGTTGTCAGGTTGT CGGTTATCCAGCTATGATTAAAGCATCTTGGGGTGGTGGGA GGGAAAGGAATAAGAAAGGTGAGCTAGTTGTTTGGGATG ATGTCGTCAAGAAATTAAAGCACCGGCTTCATTGCTTATTT ATCACCTTTTACAGCTTCCATCCTTGGACATCCTTTTAAT TAACTGTCCAGTAATATTTACTAGACTTAAATGATGGACAA ATGCTTCAAACCTTGTTAGTTAGAGACCCGTTGTGCTATTTCT AATTACAATTGTCTTTCTCTCAAAATATCACAAAGACTCAAT
--	--	--	--	--

				AGTTATGCATTTTCAGGTGCATAATGATGATGAAGTAAGG GCATTGTTCAAGCAAGTGCAGGGCGAAGTTCCTGGCTCTC CCATATTTATAATGAAGGTGGCTTCACAGGTTAGTTATTCT GCAAATTGGTGCTAGAATGTATCATTTAAGTACTCACAAGT CCATGGCACTCATGATTTTAGAACTAGTACTGTACGCAAAA TTCTTTGATTTTGACAAGTTATTATATGTGCTTCAGAGTCGA CACTTAGAAGTGCAGTTAATTTGTGATCAATATGGCAATGT AGCAGCTTTGCATAGCCGTGATTGCAGTGTCCAAAGGCGG CACCAGAAGGTGGGTCACTAGTGTACTATCAATAAATTTTT AATCTTCTTGACCAGTTTTGTATTACTTAGGGTCTAAAGTTG TTTTTTTCATAGAGAATCGTGATGCTCATTGTTCAATTGAAG GAATGTATAAATGATCTTGTTCAATTGTATTAATTGATCAGA TTATTGAAGAGGGTCCAATAAATGTAGCTCCCCAAGAAAC TGTGATAAACTTGAGCAGGCAGCCAGAAGGTTAGCCAAA TATGTGAATTTTGTTGGAGCAGCAACTGTAGAATATCTATA CAGCATGGAACTGGCGAGTTTTATTTCTCGAGCTAAACC CTCGGCTACAGGTATGAAGCATACTTGACATTGTATAT TCATATTTACCTCGAATAATTACTCAAGAAAGAAAATGTTT TATGTCAATATTTATGGCATTGCATCTCAATATCCTTTGGAT TTATCGTTTTCTACCTTACGTTTGTGGCTCACTTTAATATGA CTTGCTTTTGTTAAGGAGCCTTGGGATTTCTTAGAGTGAGA TATGACACTCTTGCCTTTCAACTTTTGTGAACCATGTCTGAT ACTCCCTCCATTTCTTTTGTGTTGTTGATTTATATCTTGAGG GGTGATATTATTCATAGGTAGAGAGATTCCTCTAAATTTAT AAGATGAGACATAGCTCTGAGGGGTCTTGTTGAATTCATC TTGATGAGTACTTTAAATCAAAGCCTTGATGAGTACTTCAA TAATATTAAATTTTTAGAATTTTTATTCTTATATAGTTAAAG ATACTAACAATAAAATTTGCTCCAACAAATGTGTGATAA TGAATCGGGACAAAAGAAGGGAATGGAGGGAGTATTACT AAGAATTAGCAATCCTATATGATCATGTGATGGATGAAAA AAAAAATTCTTATTTGACTTTTCTGACAATATTGTATATAAT GTCTGACATATGTGTAGGTTTTATTATATTTAATTTTAAAAA ATTCCTGTTTGAAAAATCCGGTTAATTTTATTGGTTATTTAT CTAATTCCTTCTTTTGTTCGCGTTTGATAAATACAGGTGGA GCACCCAGTAACTGAATGGATTGCTGGAATTAACCTTCCAG CTGCTCAGGTTGCAGTTGGCATGGGTATCCCCCTCTGGCAA ATTCCAGGTAGCTAGCATGTTCCCTTTTTTTATTATATAACT TATGTGCTTCATCTTGTTCTTGTTGATGAGTTGGCTTGCTTT TGCAATTTCAAATAGAAATTCGGCGATTCTATGGTAAGG AACATGGTGGCGGTTATGATGCTTGGAGAAGAACATCAGT TGCAGCGACTCCTTTTGATTTTGACAAGGCACAATCTGTGA AACCAAAAGGTCACTGTACTGCCGTACGTGTGACAAGTGA GGACCCTGATGATGGATTCAAGCCCACTAGTGGGAAAGTA CAGGTTAATAATGCTATTGTTTTATAGTTCAAACATTTTTCT CAATTGATTGCCTTGTCTGTTTTGTGATTCATGTAAAATTAT TTAATTCATTGGTTTCTTTTCTAGGAGTTGAGTTTCAAAGT AAACCAAATGTGTGGGCCTATTTCTCTGTTAAGGTATGTCT TTATTTTTTTTAAGCTTTACATCATCCTTTTATGGATTCATCC
--	--	--	--	--

				ACGAGCTTAACAATGGTCAACACTGTCAATTGCAGTCTGG GGGAGGCATTCATGAATTCTCAGATTCTCAATTTGGTAAGT TTAAAGCACATTTTAAAGATGACTAGCAATGAAATGACTAT TATAGCTGCCTTTTAAGAATGAAGTTCTTCAACATCATAGT ATTCATTCTCTAATTTAAGACTGCTGCAAATGGATTGAGAA CTGTGCTGTTGTGCATGTGAAATGAGATATATTGGTTTTTC ATAGTGTGTCATTGTAGACAGTAAATGCTCTTGTTAATTGT TGATGATTGGAATTGGGATTTAGCATGCTTGGTGTAGTTTT CTCTTGACAAACAAGTCTCATGGAATTAACATGTCATTTTT TTTATCGATTATTTTTGGTTTTAAACATCCTTTATCTATTTT TTTTATTTTTTTATAGAAGGCTAATGTTAGTTAATTTGTTT GTAGGGCATGTCTTTCATTTGGTGAATCAAGAGGGTTGG CCATAGCAAACATGGTTCATGGCTTAAAAGAAATTCAAATT CATGGAGAAATTCGCACGAATGTTGATTATACCATTGATCT TTAAACGTGAGCCTTGACATGATTTTTTTTCTCCCTACA CTTCCACTGTTTTTTCAATTAGAAGCTAAAGTTGTCTTTGT TTTTCTTTCTCCAGTCTTCGGATTACAGAGATAATAAAATT CATACAGGTTGGTTAGATAGCAGAATTGCAATGAGAGTGA GAGCGGAAAGACCCCCCTGGTTCATCTCTGTTGTGGGAGG AGCACTCTACGTATGTACAGCTTTTTTTCTCTAAAATTTGTT TCCTTCCAAAAGCTTCATGTGTCACTTTCGTTTATTTTTATA ATGAATAATTTTAAATACTTCGTAATTTCTTTCTCCTTTCTCC CTATCTTCAGAAAGCTTTTGCTAGTAGTACAGCTACAGTTT CAGAATATGTTGGCTATCTTGAGAAAGGTCAAATTCCTCCA AAGGTAATTCATGCACCAGACGCTGTTGAGGTATACTGGT TTTTTAAACACTAATTGTTTCTTTCAGTAAATTACATCAAT ATTTGTGTGGATTGCAGCATATATCACTTGTCCACTCTGAA GTTTCTCTGAATATTGAGGGGAGCAAGTACACTGTAAGTA TATTATTATAACTGATGTGAATTTTATATTTCATTTTCGATTT CTTCTGTTTTCTTGTTAATCATCATAACATGGTTGATGCTGT TCTCTAGATCAAAGTGGTGAGGGGCGGTCCAGGAAACTAC AGATTGAGATTGAATGAGTCTGAGATTGAGGCTGAAATAC ATCCATTAAGAGATGGGGGTCTTTTGATGCAAGTAAGAAC TTAACTTTTATTCATTCATATATTCATGATTGAGGGCAATTG TCAAATTATACACATATAGGAGTGATAATATGTGTAGAGTT AAAATTGCGAGTGAAAGCTGAGATATTACTCTATGTATTTA GTATATCATTACCATAGAATGCTTGAGTTACTTGCGTTAA ATTAAAAAAAAGGAAAGAGTAGAAATTAGAGAGTCTAAT TTCTGTGGTCACAATGATATGTCTAATTGAACGCACCCAAT GTGTTTCAGTTATTTTTTTTACCCCTAACATAGGAGGGAAAA CTGACTTAGCGGCTTCCCCTCTAGCATAGGATATAAGTGCT CCAAACTCTTAGAATATCTAAATTTGAAAAACTTATAATGT ATTATTGACATTCTTTCAGAGAATGCTTTTCTGTGTGAACTC CTTAAGTATGTTAATAGCAATCCCGCAACCCTGTTTCACATT ATATAGGTATTTGTTTCTTATTAGATGATATTCCATATCTCC ATATAAGATCTTCTTCTTACCAATTCAAGCCATATATTTTT GGATTAAGAAGATGATATTCACAAAAGGTTTGCGTTATGA TGATACTCAATATACCCACATGTTTCATATTTTCATTGACTT
--	--	--	--	--

				AAACGCTATTTCTTAGAAAAAGTTGGAGTTGTTGATCCAATG TATGTGCTAGGTTCTCATCCCTTTGTTTTCAATTAGCTATGG ATTTTGAGCTCTTCTGTACATTTGAATGTGATGTAGTTGGA TGGGAAAAGTCACGTGATATATGCTCAGGAAGAGGCAGC AGGAACTCGCCTTCTTATTGATGGACGAACGTGTTTGCTTC AGGTACCATCATGTTATTTAATTGCATAGTATTTCTAAACAT TTACCAAGCGTAACATGCTATTACATTTTCCACTTCTTCAAT ATTCAGAATGATCATGATCCTTCAAAGTTAATTGCGGAAAC ACCTTGTAAGCTACTGCGGTATTTGGTTCCAGATGATAGTC ATGTTGATCCAGATACTCCATTTGCTGAAGTTGAGGTTATG AAGATGTGTATGCCTTTGCTTTCCCCTGCATCTGGTAAAAT AAGATTTAAGATGTCCGAAGGACAACCCATGCAGGTTAGC ATAGGTTTTGGTAGATCTATATGTTAACTAATTATACTTCAA AAGTTTCTTCTAAGTGAAGGTTCACTGTGTAGGCTGGCGA GCTCATAGCAAAACTTGAGTTGGATGATCCTTCAGCTGTAA GAAAAGCTGAACCGTTCCGTGGTAGTTTTCCAACCTTGCAT CCGCCAACTGCTATCTCAGAAAAGGTTTCATCAAAAATTTGT TGCAAGTTTGAATGCAGCCCAGATGATTCTTGCTGGTTTTG AACACAACATAGATGAAGTAAGTATTTTAATAGTGAATTCA AAAATATTGAGCACTATATTATATAGATGAAGTATTTTCAGT TATGAATTAAACATAGATGATGTAAGTATTACTCTAAGGG GGCTGATGCAAAAATTTGAGAGTAAATGTATATTTATATTT TGTTTGGTTCCCTTATCTGAAAGATTCTTTACAAAAGAGTTT TCTAATTCTCAGGTTGTCCAGAGTTTGTTGAGGTGCCTTGA TAGTCCTGAACTTCCTTTCTTGCAATGGCAAGAATGCTTGT CTGTTCTAGCAACACGGCTTCCCAAAGATCTGAGAACTGAA GTATGTTACTAAAATCTGTATGCAATTTTTTTCCATATTTGA TAAACACCTGCTGTCTTTAGCAGTCTTTATCTTCTTTGGTCT TTCTCCCTCTCTCTCTCTCTCTCTCACCCCTGTGTATAATTCAC ATTATTTTTCCATGTTTCCCTGTCTTTGGTATTCTCAGTTGG AATCAAAGTGTCGAAAATTCACAGGAATTACGAATTCTCAT AACATTGAATTTCTGCTAAGCTGTTTAAAGGTGTTCTTGA GGTTAGTCTTTCTTTTTGTTACCCTTCTATATATGCTATATAT TTAGTATTACTTACATAAGTATTTTGTTTACAGGCCCATTT GAATTCATGCCCTGAAAAGGAGAGAGGAGCTCAAGAGCG GCTCATTGAACCTCTAATGAGTCTTGTTAAATCCTATGAAG GTGGGAGAGAGAGTCATGCCCATGTTATTGTTCAGTCTCT GTTTGAAGAGTATTTGACTGTTGAAGAATTGTTCAGTGACA ATATCCAGGTTTGTTATTGCAGTTGCAAATTGATCAGTTTTT TTGGTCAACCAATTTGTACCGGGACAAATTGCCACAGTCCT AATTTATTGATGATCATCGGTCTTCGTGTTTTTTCCCGGTT TGGTTGATTGGTTATCATGTTATGAAGTTGTCACATAAAAA AACCTAAATTTACTAATGCACCCATTTGACCCTAGAGGCTA CAGAGTCTTTGGAGTACTCTGTCTCTGTGGATTTATAGTAG CATCCTTTGAAGTATTACTTTATTTTTTCAAGAAATTGTAGT TCATGTCTTTTGATTCTGATCTTGAAAGGAAGGCTGACATC ATTCCACTTTATTTTCTAATTTCAATCTATACAGGCTGATGT GATTGAACGTCTCCGCCTTCAACATAAAAAAGACCTGTAA
--	--	--	--	---

				AGGTTGTTGACATTGTCCTATCACATCAGGTAGGCAGGAA ATTTCAAATAATACAAAATAAAATTTTCTGAGTTTTCTTTT ATTTTCTTTTCTTTTTTTTTCCCACTTTCCCTTGACTGTCTTCT AGACTTGTTTACTGTGTAGTAATAATGGTTTTTCAGGGTGTT AAGAATAAAAAATAAATTGATCCTCCGGCTCATGGAACAAC TGGTTTACTCAAATCCTGCCGCATATCGGGATAAGCTTAAA CATTTTTCACAACTAAACCATACAATCTACTCTGAGGTTAGT GATTATTCAATTTTTTTGTTTATATTGTCACACTACAGCATTCT ACAAAAAGGTTATTAAGTTTATACACTAATCAATTCCTTCAC TATATGCAGTTGGCACTTAAGGCAAGTCAATTGCTTGAACA AACCAAGTTGAGTGAAGTTCGTTCTAATATTGCCAGAAACC TTCCGAGTTAGAAATGTTTACAGAAGATGGTGAAAACAT GGACACTCCAAAAAGGAAAAGTGCTATTAATGAGCGTATG GAGGCTCTTGTGAATACTCCGCTTGCTGTTGAAGATGCCCT TGTTGGCTTGTTGATCACAGCGATCATACTTACAAAGGC GGGTTGTTGAGACTTATGTCCGGAGACTTTATCAAGTAATA TCTAAGTTCCAACAGTAACTTTAACTATCATTTAATAATGT TATGTCATATAACTCTATTTTTTGTGGGTAATCTCTTTTCTCA GCCTTATCTTGTAAGGAAGTGTCAGGATGCAGTGGCAC AGATCTGGCCTCATTGTTTCTTGGGAGTTCATGGAGGAGC ACATTGAAAGAGCAAATGCCTCTAATGATCTGTCCATCAAC CAGCCCCTTGTTGAGAAACACAGTGAGAGAAAATGGGGA GCCATGGTCATCATAAAATCTCTTCAGTTTTTGCCAACAGT GATTACTGCTGCATTAAAAGAGACAACACATAATTCAGAT GAAACGATTCCCAGAGGCTCTTTAGAATCAATCAGTCATG GAAATATGTTGCACATTGCACTTGTGGGTGTTAATAACCAG ATGAGCTTGTTGCAGGATAGGTATAGATTCTATTTTTATGG TTTAAGCAAGATTTTAAAATGTGAACATTGGACTATCCAAT TTTATTTATGTTTATTTATTTATTTATTTTTTTGACGAGGACT ATCCAGTTTTTTTGAAGAAATATGCTTTGCTTCAATTATGCA GTCGCTCTTTATAGTAACCATTCCGGCCTTTTGCTTAACCTT TTTTCTCTGTGGGGTTTATGAAATGGAATTTTATACTATGC AGTGGTGATGAAGATCAAGCTCAAGAGAGAATTGATAAGT TGGCAAAAATCCTGAGAGAGAAAGAAGTGAGCTCAGGTC TTCGTGACGTTGGTGTGAGGGTAATTAGTTGCATTATACAG AGAGATGAAGGAAGAACGCCAATGAGGCATTCACTTCTATT GGTCAGAAGAGAAACAATACTTCAATGAAGAGCCTTTACT ACGTCATTTGGAACCTCCTCTATCAATATATCTTGAAGTGGT AATAAAATTCTGAGCAAGAAGCTGTTGCTTTGTTTGTTTCGT TCTTTTCTTGTTTTTTAATATGGGCCAAATCATTATCTTTAAT ATTTTTATCACTATATGATATAGTTATAAGGTATTTGGCTCA CAATTTTCATTATACAGGACAAGCTCAAACACTATGAAAAT CCCAGATATACTCCTTCTCGGGATCATCAGTGGCACCTGTA TACTGTCATGGACAAGCCATCTATTCGACGAATGTTTTTGA GGACACTTGTCAGACAGCCCACCTCCGAGTTTAGCGGGGT TGAAGTAGAAATGCTTAAACACAAAGGCCTATCTCCTTTA CTTCAAGAAACATACTGAGGTCTTTAACAAGTCAATGGAA GAATTAGAAGTCAATGCGCACAATGCTACCTTGAAACCTGA
--	--	--	--	---

				TCATGCTCATATGTACCTGTGCATTGTAAGAGAGCAACGAA TCAAGATCTTGTCCCATATCACAGGTTCTAATTAATCATCT TAATTTTCTGTGTTTCATTCGTGGTCATTGATGCAACTTATG CCTTAATAGATATTATTTTGACCCATTGATCCAGGGAGGTG AACATTGATGATGAACAAGAAGAGATAACTGTTTCAGATAT ATTTGGAAGAGCTTGCGCGTGAAATCCACAGTTTTGCTGG TGTGAGAATGCATAAACTAAATGTATGTGAGTGGGGAAGTA AAGCTTTGGGTGTCATCTTCTGGCCAAGCCAATGGTTCATG GAGAATCATTGTTAATAATGTGACTGGTCATACATGCACTG TACATGTAAGTTTGAACATATGATAATTTTTTCTATAATTTT CTGTAAAGGTTTTTAGTATTGGCCGTGTTTAGTAATTTCTTT CAACACTCAGATATTTATGCCAGTTTTTGTAGAATTATAG AAATACAGTAGCAATGTTTTGATAGCCCAGGTTCTCTCTTT CTCCCAAATTAATCTTTGTGTCAATGCATGACTTTGCCGCAT CAATATCTTAAATAATTTATGATTATAAACTATAAGAATAT GATACTATGAGAAATTGAAAATATACATCGAGAGAAATCT AAATACATCTTCCATTACAACCTTTGATTTTTTTTTTTTTTT AAATTGAAAAACAATGGGTAAAGGTGATACATGAATCTT GTAAACACAAACAATGACCATACATATGGGACGGAGGG AGTAATAATGGTTTGTATATTGGCACTTATAAGAAAAAG GTTATGCACAATTAATTTATGTCTTGTAGACGTGTATCACA TAATGTCTTCTTTAGTTTGCTGACCTTTTTTCTACTAATGTTA TGCAGGTTTACCGTGAGTTGGAGGATAACAACCTTCATGA AATGATCTACCATTCAATATCTGTTCAAGGTCCTCTCCATG GAATACCAGTGAATGCACCCTATCAACCACTTGGAGTCATT GCCCGTAAAAGACTTCAGGCCAGGAAAAATAGCACAACT ATTGTTATGACTTCCCACTGGTAAGAAATATTAAACTCCAC TATACCCCAATACTACAAAAGCAGAATTTTACTATATTAGG TTTCCTTCCCTCCCGAATTTTTTTAAAAAATAAGAGTTAATA CATGACTTGCATTTCGAGTGTAACATATGGTTCTTGTTTACGC TCAACTAGTAATGAAATAGGAATATAAATCTAATAAAGATT TACAAATTTTGGAGAGAGGGCGGGGTTGTGTAACGTGTTGG ACTTTGTAAAGGTTTAAAGTTAGTTAGGTGGAGATGCAGG GTTTATATTTAGTTTATGAGGAACTACAAGTTTTCAAGAT TTAATAGGTAATACGTGTAAAATTTTAAAAGATATCGGAA TATTTGTCTTAGTATTTTGGATTATTGTAACCTTTGTAAATAA AAATAGTTTCACATTTTGTAAAGATTTCAAGTTTGGCTTTTCG CACACAATGGGTCTGTTCTTTTACCTTATCTGTACTTATCC GAACTTTTCCGAACCTTCTATGAACTTGTTTTGTGAGAGAGA AAA
78	Kochia scoparia	gDNA Contig	10030	ATGTCTTTGCATTTGGTGAATCAAGAGGGTTGGCCATAGC AAATATGGTTCTTGGCTTGAAAGAAATTCAAATTCGTGGA GAAATTCGCACTAATGTTGATTATACCATTGATCTTTTAAAC GTGAGCCTTATACATGAATTTCCCCCTACACTGTTCACTGT TTTTCAATTAGAAGCTAACTTGTCTTTGTTTTCTTTCTC CAGTCTTCGGATTACAGAGATAATAAAATTCACACAGGTTG GTTAGATAGCAGAATTGCAATGAGAGTCAGAGCGGAAAG GCCCCCTGGTTCATCTCTGTGGTGGGAGGTGCACTCTACG

				TATGTACAACTTTTCTCTTAAATTTTCTTCCTTCCTCAAGCTT CATGTGTCACCTTCGTTTATTTTTATAATGAATAATTTTAAA TGATTCTTTCTCCTTTCTCCCTATCTTCAGAAAGCTTCTGCTA GTAGTGCGGCTACTGTTTCAGAATATATTGGCTATCTTGAG AAAGGTCAAATTCCTCCAAAGGTAATCCAAATACCAGATG CTGTTGAGATATACTTGTTTTTAAACACTAATTGTTTCTTT CAGTAAATTACATCAACATTTGTGTGGATTGCAGCATATAT CACTTGTCCTACTCGGAAGTTACTTTGAATATTGAGGGGAG CAAGTACACTGTAAGTTTATTATTAAGTATGATGTGAATTTTAT TTTTCGTTCATGGTTTCTCCTGTTTACTTGTTGTTAATCATCA TAACATGGTTGATTCTGTTCTCCAGATCAAAATGGTGAGG GGCGGTCCAGGAAGCTACAGATTGAGATTGAACGAGTCA GAGATTGAGGCAGAAATACATACATTAAGAGATGGGGGT CTTTTGATGCAAGTAAGAAGTTAATTTTATTGATTCATATAT TCATGATTGAGGACAATTATAAACCTCAAGCTATACGCATA GGAATTATAATTTGTATAGAGAGTTAAAATTGCGAGTGAA AGCTAAGATATTGCACCAACATGTATTAAGTCTATCATCCA CCACATAATGCTGAAGTTACCTCCGTTAATTAAATTTAAAA AACAGGAGAGTGTAGAAATTAGATAGTCTAAGTTTCTGTA GTCATAATGATATGTCTTTTGAAAGTGCCCCAATGTGTTA CATTTATCTTTTACCCCTAAGTTTAGGAGGGGAAAGCT GACTTAGCAACTTCTCCTCTAGTACAGGATATAAATGCTCA AACTCTTAGAATATCTAAATTTGAAAAGATTATAATGTAT TATTGACATTGTTTCAGAGAATGATTTTCTGTATGAACTCCT TAAGTATGTTTTTTGACAACTCCTTAAGTATGTTAATAGCA ATGCCACAACCCTGTTCCACATTAGGTAGGTATATATGTTT CTGATTAGAAATTATATTCCATATCTCCGTATAAGATCTTCC TTCTTACCAACACGAGCCATATAATTTTGGGATTAAGTAGA TGATGTTGGTTTGCATTATGATGATACTTAATATACCCACA TGTTTCATATTTTCATTGACTTAAACGCTATCTTCTAGAAAA GGGGTAGTTGTTGATCCAATGTATGTGCTACATTCTCATCC CTTTGATTTCAACTAGCTATGGATTTTGAGCTATTCTGTGCA TTTGAATGTGATGCAGTTGGATGGGAACAGTCATGTGATA TATGCTGAGGAAGAGGCAGCAGGAACTCGCCTTCTTATTG ATGGACGAACATGTTTGCTTCAGGTACCATCTTGTTATTTA ATTGCATAATATTTCTAAATCTTTACCAAGCGTAACCTAGTA TTAAATATCCCCCTTCTTTGTATCCAGAATGATCATGATCCT TCAAAGTTAATTGCGGAAACACCTTGTAAGCTGATGCGGT ATTTGGTCCCAGATAATAGTCACATTGATCCAGATACTCCA TTTGCTGAAGTTGAGGTTATGAAGATGTGTATGCCTTTGCT TTCCCCTGCATCTGGTAAAATACAATTTAAGATGTCCGAAG GACAAGCCATGCAGGTTAGCATAGGTTTTGGAAAATCTAT ATGTTAACTAATTATACTCTAAAAGTTTTTTCTAAGTGCGTG TTCGCTGTGTAGGCTGGCGAGCTCATAGCAAGACTTGAGT TGGATGATCCTTCAGCTGTAAGAAAAGCTGAACCTTTCCGT GGCAGTTTTCCAATTTTGGGCCCCCACTGCTATCTCAGG AAAAGTTCATCAAAGATGTGTTGCAAGTTTGAATGCAGCC CAGATGATTCTTGCTGGTTATGAACACAACATAGATGAAGT
--	--	--	--	--

				AAGTATTTCAATAGTGAATTCAAAAAATCGAGCAATATATT ATATACATGAAGTATTCCTATTATGAATTTAACATAGATGA TGTAAGTATTCCTCTGAGGGGCTGATGCAAAAATTTGAGA TGTATATGTATGTCTATTTATATTTTGGTTGGTTCCCTTATC AGAAAGATTCTTTACAAATGAGTTTTCTAATTCTCAGGTTG TCCAGAGTTTGCTGATTTGCCTTGATAGTCCTGAACTTCCTT TCCTGCAATGGCAAGAATGCTTGTCTGTTCTAGCAACACGG CTTCCCAAAGATCTGAGAACTGAAGTATGCTACTAAGTTCT GCATGCAATTCTTTTTCTATATTTGATAAACACCTGTTGTCT TTAGCAGTCTTTATCTTCTTTTTCTTTCTTTCTTTTTCTCTGT AACTCACATTATTTTACCATGTTTCCTTATCTTTGGTTTTATC AGTTGGAGTCAAAATATGGAAAATTCGAAGGAGTTACCAA TTCTCAGAACATTGAATTTCTGCTAAGCTGTTTAAAGGTG TTCTTGAGGTCAGTCTTTCTTTTTGTTACCCTTCTGTATATG ATACAGTTTGAGTGTTACTTACATAAGTATTTTGTTTACAG GCTCATTTGAATTCATGCCCTGAAAAGGAGAGAGGAGCTC AAGAGCGGCTCATTGAACCTCTAATGAGTCTTGTTAAATCC TATGAAGGTGGGAGAGAGAGATCATGCCCATGTTATTGTTT AGTCTCTGTTTGAAGAGTATTTGACTGTTGAAGAATTGTTT AGTGACAATATCCAGGTTTGTTATTGCAGTTGCAAATTGAT CAGTTTTTTTGGTCAACCAATTTGTACCGGGACAAATTGCC ACAGTCCTAATTTATTGATGATCATCGGTCTTCGTGTTTTT TCCCGGTTTGGTTGATTGGTTATCATGTTATGAAGTTGTCA CATAAAAAACCTAAATTTACTAATGCACCCATTTGACCCT AGAGGCTACAGAGTCTTTGGAGTACTCTGTCTCTGTGGATT TATAGTAGCATCCTTTGAAGTATTACTTTATTTTTTCAAGAA ATTGTAGTTCATGTCTTTTGATTCTGATCTTGAAAGGAAGG CTGACATCATTCCACTTTATTTTCTAATTTCAATCTATACAG GCTGATGTGATTGAACGTCTCCGCCTTCAACATAAAAAAGA CCTGTTAAAGGTTGTTGACATTGTCCTATCACATCAGGTAG GCAGGAAATTTCAAATAATTCAAATTAAGTTTGAGTTTTCT TTCCCTTTTCCCTTGTAATATCTTCCAGGCTTGTTTACTATG TAGTAATAATGGCTTTCAGGGTGTTAAGAACAAAAATAAA TTGATTCTCCGGCTCATGGAACAACCTGGTTTACCCAAATCC TGCCGCATACCGGGAGAAGCTTATCCGTTTTTCACAACTAA ACCATACAATCTACTCTGAGGTTAGTGATTATTCAATTTTTT GTTTATATTGTCACACTACAGCATTACAAAAAGGTTATTA AGTTTATACACTAATCAATTCCTTCACTATATGCAGTTGGCA CTTAAGGCAAGTCAATTGCTTGAACAAACCAAGTTGAGTG AACTTCGTTCTAATATTGCCAGAAACCTTTCCGAGTTAGAA ATGTTTACAGAAGATGGTGAAAACATGGACACTCCAAAAA GGAAAAGTGCTATTAATGAGCGTATGGAGGCTCTTGTGAA TACTCCGCTTGCTGTTGAAGATGCCCTTGTTGGCTTGTTG ATCACAGCGATCATACGTTACAAAGGCGGGTTGTTGAGAC TTATGTCCGGAGACTTTATCAAGTAATATCTAAGTTCCAAC AGTAACTTTAACTATCATTTAATAATGTTATGTCATATAAC TCTATTTTTTGTGGGTAATCTTTTTCTCAGCCTTATCTTGTA AAAGGAAGTGTCAGGATGCAGTGGCACAGATCTGGCCTCA
--	--	--	--	--

				TTGTTTCTTGGGAGTTCATGGAGGAGCACATTGAAAGAGC AAATGCCTCTAATGATCTGTCCATCAACCAGCCCCTTGTTG AGAAACACAGTGAGAGAAAATGGGGAGCCATGGTCATCA TAAAATCTCTTCAGTTTTTGCCAACAGTGATTACTGCTGCAT TAAAAGAGACAACACATAATTGAGATGAAACGATTCCCAG AGGCTCTTTAGAATCAATCAGTCATGGAAATATGTTGCACA TTGCACTTGTGGGTGTTAATAACCAGATGAGCTTGTTGCAG GATAGGTATAGATTCTATTTTTATGGTTTAAGCAAGATTTT AAAATGTGAACATTGGACTATCCAATTTTATTTATGTTTATT TATTTATTTATTTTTTTGACGAGGACTATCCAGTTTTTTTGA AGAAATATGCTTTGCTTCAATTATGCAGTCGCTCTTTATAGT AACCATTCCGGCCTTTTGCTTAACCTTTTTTCTCTGTGGGG TTTATGAAATGGAATTTTATACTATGCAGTGGTGATGAAGA TCAAGCTCAAGAGAGAATTGATAAGTTGGCAAAAATCCTG AGAGAGAAAGAAGTGAGCTCAGGTCTTCGTGACGTTGGT GTCAGGGTAATTAGTTGCATTATACAGAGAGATGAAGGAA GAACGCCAATGAGGCATTATTCTATTGGTCAGAAGAGAA ACAATACTTCAATGAAGAGCCTTTACTACGTCATTGGAAC CTCCTCTATCAATATATCTTGAATTGGTATGATATTCTGAGC AAGAAGCTGTTTCTTGTTTATTATTTTCTTGTTTCTTAATATG GGTCAAATCATTATCTTTAACATTTTTGTCATTATTGATAT AGTTATAAGGTATTTGGCTCACAACTTTCCTTACACAGGAC AAGCTCAAGGTCTATGAAAATCCCAAATATACTCCTTCTCG GGATCGTCAATGGCACCTGTATACTGTCATGGACAAGCCA TCTATTCGACGAATGTTTTTGAGGACACTTGTCAGACAGCC CACTTCCGAGTTCAGTGGGGTTGAACTAAAAATTCTTCAA CACAAGGCCCATCTCCTTTACTTCAAGAAGCATTCTGAGG TCTTTAACAAGTCAATGGAAGAATTAGAAGTCAATGCGCA CAATGCTACCTTGAAACCTGATCATGCTAATATGTACCTGT ACATTGTAAGAGAGCAACAAATACATGATCTTGTCCCATAT CACAGGTTCTAATTACTATTCTTAATTTTATGTGTCTCATT GTGGTTATTGATGCAACTTATGCTTTAAGAGGGATTATTT GATCCGTTAATCCAGGGAGGTGAACATTGATGACGAACAA GAAGAGACAGCTGTTTCATATGTACTTGGAAGAGCTTGCGC TTGAAATCCACAGTTGTGCTGGTGTGAGAATGCATAAACT AAATGTATGTGAGTGGGAAGTAAACTTTGGATATCATCT TCTGGTCAAGCCAATGGTTCATGGAGAATCATTGTTACTAA TGTGACTGGTCATACATGCACTGTACATGTAAGTTTGAAGT ATGATAATTTTTTCTATAATTTTCTGTAAAGGTTTTTAGTA TTGGCCGTGTTTAGTAATTTCTTTCAACACTCAGATATTTAT GCCAGTTTTTGTAAGAATTACAGAAATAGTAGCATGTTTT AGTGCCCAAGTTCCTTTCTTTGTCCTTTTGCCAGCAATATCT TTAATAATTTATGTATAAACTATAAGATATTATGAGACTAT ACATCGAGAAAAATCTAAATACATCTTCCATTACAACCTTT GATTTTTTTTTTTTTTTTTTAAATTGAAAAACAATGGGTAAA GGTGATACATGAATCTTGTAACACAAACAATGACCATA CATATGGGACGGAGGGAGTAATAATGGTTTGTATATTGGC ACTTATAAAGAAAAAGGTTATGCACAATTAATTTATGTCTT
--	--	--	--	--

				GTAGACGTGTATCACATAATGTCTTCTTTAGTTTGCTGACCT TTTTCTACTAATGTTATGCAGGTTTACCGTGAGTTGGAGGA TAACAACCTTCATGAAATGATCTACCATTGAGTATCTGTTCA AGGTCCTCTTCATGGAATACCAGTGAATGCACCCTATCAAC CACTTGGAGTCATTGCTCGTAAAAGACTGCAGGCCATGAA AAACAGCACAACCTATTGTTATGATTTCCCACTGGTAAGAG ATATCAAACCTCACTGTACCACAATACTACAAAAGCAGAAT TTACAGTATTAGGTTTCCTTTCCTCCAAAAAATCAAGGGT TGATGCATGACTTACATTGAGTGTAAGTATGGTTCTTGTT TACGCTCAACTAGTAATGAAATAGGAATATAAATCTAATAA AGATTTACAAATTTTGGAGAGAGGGCGGGGTTGTGTAAGT TGGGACTTTGTAAAGGTTTAAAGTTAGTTAGGTGGAGATG CAGGGTTTATATTTAGTTTATGAGGAACTACAAGTTTTC AGATTTTAATAGGTAATACGTGTAAAATTTTAAAAGATATC GGAATATTTGTCTTAGTATTTTGGATTATTGTAAGTTTGTAA ATAAAAATAGTTTCACATTTTGTTAAGATTTCAGTTTGGCT TTCGCACACAATGGGTCTGTTCTTTTCACCTTATCTGACTT ATCCGAACCTTTCCGAACCTTCTATGAAGTTGTTTTGTGAGA GAGAAAAATAATAAGTTTGTCTTTTCACTTATTTTTTATT ATCTGAAGTTATTTGAATTTATTTTTCTGAAATTAAGTAAA AATAAGCTCAATAGAACATACCCAATGTAGAAAAATAGAA TTAAACAAAGAAATAGTGGGGAAAAAAGTGGAGGTGAT TTGTGTCTCTTGTTGGGCATTAGTTTAGTAACAGCTAGAGTA ATGGATATAGATGACTTATTTTAATTCATTGTATGACATAC ATCAAAAACCTGAAATTTTAGTGATATCAAATTGGCCTTAA TTAGTAATTTAGTTGTTTGATATTGTTGGTTATACAAGTGA AAACAGATACTTAATATGCGAATGATTGTGCCTATAGTGAT TATGTGACTGTGTTGTTAAATATAAAAGTGTTTCAGTGTTT TTAAGACAAGGGAAGTAGGGAACCATAAACAAAAATACG AAGCATATCTTGGGTGTTACCTAGTTTTGTCCTATTTCTCAA TTATTGATTTAGTTGTTTAATTTGTTGGTTATAAAAGAGAG AAACCGGGATTGTTGGTGTGCAAAGATTGTACCTATAGTG ATTATGTGACAACGTTGTCAAATGTAAAAGCATTGCAATTT TTGTGAGGCAAAGGAACCATAAATAAAAAATGCGAAGCATG GCTTGGGTGTTACCTAGCTTTGTCCTATTTATTGAACTATGT GATTGTACCTCAAATTTTTATATTTGATGTTGTATCGATCAA CTTGCTTTAGCTCACGTTAGCATTTATCTGTTTTTCTATTGG AAAATTGACCTGAAATTATTGGGAATGTTTTTCTCAGGCTT TCTCTACTGCCTTAGAGCAATCATGGGCATCTCAAGCTCCG CTTCTGAAGAAACCCGCTAACAAAAAAGTTTTGAAAGTCTC AGAGCTAGTATTTGCTGATTCAAATGGCACCTGGGGAACA CCAGTTGTCCCGACAAATCGTGAACCTGGTCTTAACAATAT TGGCATGGTTGCCTGGTCCATGGAGATGTCAACTCCTGAA TTCCCTGATGGAAGAACCATATTGGTTGTAGCAAATGATAT CACCTTCATGGCTGGATCATTTGGGCCAAAAGAAGATGCT CTCTTCAGGCAGTTACAGATCTTGCTTGTTCCAAAAAAT TCCTCTGATTTACCTGGCTGCTAATTCTGGTGCTCGACTGG GTGTTGCTGAAGAGGTAAGAGCATGCTTTAAATTGGTTG
--	--	--	--	---

				GACCGATGAGTTGAACCCTGAGCGGGGGTCCAGTATATC TACTTGACTCCTGAAGATTATGAGCGTATAGGGTCAGCAG TTATAGCCCATGAGTTAGAACTCCAAAATGGAGAGACTCG GTGGGTTATAGACACTGTTGTAGGGAAGGAGGATGGGAT AGGTGTTGAGAACTTATCTGGAAGTGGAGCTATAGCTGGT GCCTACTCAAGGGCATACAAAGAACTTTTACTCTAACTTT TGTAACAGGAAGAACAGTAGGTATTGGTGCCTATCTTGCT CGCCTTGGGATGCGTTGTATCCAAAGGCTTGATCAGCCCAT TATTCTGACAGGCTTTTCTACGTTAAATAAACTTCTTGGTCG TGAGGTTTACAGCTCACAAATGCAACTTGGCGGGCCCAAG ATTATGGGTACAAATGGTGTGTTCAATTAACAGTTTCAGA TGACCTTGAAGGCATTTTCACTATTGTCAAGTGGCTCAGCT ATGTTCCATCCTACTCAGGAGGTGAACTTCCTATTTACGTT CTTTAGATCCTCCTGAAAGACAGGTTGATTATTTGCCTGAA AATTCTTGTGATCCCCGTTCTGCTATATCTGGTACACTTGAC TCTAATGGCAATTGGCTTGGTGGGAATTTTGTACAAAGATA GTTTTGTTGAAACCCTAGAAGGCTGGGCAAGGACAGTTAT CACTGGCCGGGCCAAACTTGGTGGGAATCCCAGTTGGGATA GTTGCTGTTGAGACACAACTGTGATGCAAGTTATCCCAG CAGATCCTGGTCAGCTTGATTCGCATGAGCGAGTGGTCCC ACAAGCTGGACAAGTATGGTTTCCAGATTCTGCAACTAAG ACAGCACAAAGCTTTGATGGATTTTAAACAGGGAAGAACTTC CACTTTTCATTCTAGCTAACTGGAGAGGCTTCTCTGGAGGG CAAAGGGATCTCTTGAAGGGATTCTTCAGGCAGGGTCCA CAATTGTCGAGAACCTTAGGACTTATAATCAACCTGTTTTT GTTTATATCCCCATGATGGGTGAACTTCGTGGTGGGGCAT GGGTTGTCGTAGACAGTAAAATCAATTCGGACCATATTGA GATGTATGCTGATCAGACAGCTAAAGGAAATGTTCTTGAG CCAGAAGGAACGATTGAGATCAAGTTTAGAAACAAGGAAT TAATTGAATGTATGGAAAGGCTTGATCAACATCTCATCAAT CTTAACGCAAACTCGTCGAAGCCAAAACTCCAATTTATA TGTTAATATCGAACTCCTGAAACAGCAGATAGAAGCTCGG CAGAAGCAACTTTTGCCTCTATATACTCAAATAGCCACAAA ATTTGCTGAATTGCATGATAGTCCTTATAGAATGGCTGCGA AAGGAGTCGTCAAGGAAGTCCTGGATTGGAGCAATTCTCG CTTATTCTTCCACAAAAGACTGTACAGGAGAGTTATGGAG GAATCACTTGTCAAGACCGTCCGAGATGCTGCTGGTGAAG CAATGACCCACAAGTCTGCCATGGAATTGATCAAGCAATG GTTTGCTCAGTCTGATAGTACTAGTGGAGTGGGAGCTGAT CCTTGGTCTGATGATGAAGCTTTCTTCAAGTGGAAAGAAA ATCCTGCTAATTATGAAGAAAAGCTAATTGAGTTACGCATA CAGAAAGTATTGCATCAGCTTTCAAATATTGACAACTCAGC TTCTGATCTGAGAGCTCTTCAGCTTCGTCAGGGTCTTGTTG CCCTACTTCAGAAGGTATCTCTAAGGTTCCCTCCACACACAC ACACACCCACCCACCAAAAAAACACACAACACAACAGT GAG
79	Kochia scoparia	gDNA Contig	8717	GATCTTGATTGATGTTGAGGATGACTTGTTCTGACGTTGTT TTCTTGATGATCGGCCTGTAAAATGAAACAAAGATTGCTAC

				CTCGGAGGTTTTCCCGAGTAAAACCTCTCCGAAGTTTAAGT CAGTTCAATGATCTTGAATGGATTGGTATTTTAGGAATTTA ATGTGAGTCGTTTTAGAATTAGATACCTGATTTTGTGTGGA GAGCTTGGTATATATAGGCAATCGGGTGACCTACTAGCTT ATCAGTCAAGCGATGTAATCCGGCACCTGGTAGCTTGTCAT CAGTTTGACTGGGCAATTAATGGTCAAGCGGTTTGAAATG TGTTTCTTGGACCTTAAATATGGCTTTGGTTATAATGAGCT AGATTTAGGTTTGGACCTTAGTTTTATGGGTAAATACTAGA GGCGATCAAAAAAACCCGGCCCGACCCAAAATTTTGTGGG CTTTGGTCACGACTTTTTTTTGGCCCGAATACCCATACACAA ACTAAAATGGCTAGTACAAAAGTACAAATATACAAAAGTT GTTCTTACTAGAAAAAGCTAGTTATTGACCATCAATTATCT CAAGTCCAAATAAACTTTTATAAGCACTAGAAGTAAGTTGT ATGAGAAGTATTGATCAATAACTCAGCAAAATAGTACTTCG TATATAATTATAACAAGAAGTCAAATTTGGTGGAGTGTG ATTGAATTGAAAAAATTGGTAGAATTCAATATGATACAACA AAGAAAAGCTACATGGTCATATTAAGTTAAATTTTGCAT AACAAGAGTAAAAGAAATGATAAATTGATTGACACGATCA ATAAATCACCGGATAAATTCGTCAATTCTTATTATCAGTCCT TCAAATTATAATAAATTCCCCAATCCCCCACCTACCATTATA CTCGTAAGTTTTTAACAATGCTGGAACAAACAGTGCAAATG TGTGATTTAAAAATCGGTGCTATTTGTTTATACTTCCTCGTT GCAGTAGCATCATCACACATTCATACTAAAATCAAATCAC ATTCATCATAAATCATAATAATAAATAATAGAATAATTATA CAGGTAGCTGAAAGGTGGGCAGTTGCCACGTGCATCCCCA AATAAATATGCAGTTAATTGAATGAGATGGAATGGAAGGC ATTCTCTGCACCTCAAACCAAACCAACCCCTTCTTCCCCTC TAACACTTCTTCAATGACTTCTCTTCTTCTTCTTATTCTCAT TATATATACATTCACAAGTAGCTGATCACTACTGTTTTCTTT TTTTGTTCTGTCTAAAGTTTGATTCTTTCCATCAAAGTTTG CTTTTTTATGCAATAATTCAAATTGCCCAGATGCTAATTTAG TGGAATTTCAATTGAAAGGTTTGTTTTTTCTGCTGAATTATG TCCCTTTGATTTGATTTGAGTGTTTTTTAAGTTTATGATGAA TCATACATGCCCTTTTATTTGAGTTGATTTTGGGATTTGTCT TATGTTGGGGTTGGTTTTTGGTTGGTTTTTGGTTGGTTTTT TTGGTAGTGTGTAGTTGAGCTAATTAAGTGTAGAATAGTG TGAAATAATATATTGGTTGTATTGGGTATTGCTTACTAGAA AATGTGATTCATTTTGGTAGTTAGTTGGCTTTAGTTGACTG ACTCTTCTAAGTTCTAACTATGATTGATTGATTGATAATACA GGTATGTGTAGTCCAAATTGGACCTCATTTTATAATTATCCT CATTTTATAATTATAAATTTGTTTTTTTTGGCATTGGATTGTT GACTCTTGAATTCTACTTCACTACTTGAATTGCATTGGATTT TTTCTATTAGTATTTAGCTTTTATGCCATAATAAAAACTTCT GCCTTTCATTGAGCTGGTATGTTCTATACTTCTATTCTTTTT TTTTTTATATAAATTAATTCTTTCTTTCTCTGTTAATGTTGT TGTTGTGTTGGATAATATGTTAATTACCCAATTAAAGAGCT CAAATCTTGAAGTAATGTATGAGTATTGCTTATGATAGTAG CTTTGTGATTCAAAGCTTGCATCATTCATTAATTGACTATT
--	--	--	--	--

				TGTTTTGTGTAATACGAGGTTGTTGTAGCTTGATTGCTTTTT GACAGGTAGAATATGCTTATCATGTGAAAATTGGGAATGT TATTCATGTGATTTGATGTTATTAGGATGCTGACCAGTGTT TTATGAGGTGATACTGATTCAACTTGTTGATGTAACAGTTA TAGGAAAATCGGGCGTATTTTTTGCTGAGGGCGGGGCGGT GTGTTAACTAGGGAAGAGCCAAAGATGGCAACTCTAGTGC GAAACATTGATTACCTTAATGGAACAACCTGTTGAGGAAT TCTACTACATTACCCGTTGTTGATGAATTTTGTTATGCTCTT GGAGGGAAAAAGCCGATTCATAGTATTTTGATTGCCAACA ATGGAATGGCAGCTGTAAATTTATCAGAAGTGTTCCGAC ATGGGCTTACGAACTTTTGAACAGAGAAGGCTATTGTA TTAGTAGCAATGGCTACTCCAGAAGACATGAGAATCAACG CTGAACACATTGGAATGGCTGACCAGTTTGTTGAGGTTCCCT GGTGGGACTAACAACAACAACCTATGCCAATGTACAGCTCA TTGTTGAGGTAAATCCTGCTTTAGTAACACTGATCTTCCGT GTTTTCTCTGTTAGATTACGAAATACTCACATTAGCCACAG TGTATGAGAAAAGATATCACCTGTCCTGTTGGCCTGTTGAT GTTTCATCATTGATTTTCAGAGGATAAAATTTTGTTAAAAAGA CTTCAATTTATTTTCACTGCTCTTTCAGATGGCAGAAATTAC ACGCGTAGATGCAGTTTGGCCAGGTTGGGGACATGCATCT GAGATCCCTGAGCTTCCAGATGCACTAACCGCAAAGGGGA TTGAATTTCTAGGGCCTCCAGCTATATCTATGGCTGCTCTT GGAGACAAAATCGGTTTCATCATTGATTGCTCAGGCCGCAG ATGTTCCAACCTCTCCATGGAGTGGCTCTCATGTATGAATT GATTTTCTTATCGACCTTCACAACTTTCTTTTTCTCAAGGA GTTTCCTAATCAGTTTTCTTAAATTTCTATGCTTTAGGTGAA AGTTCCTGCTGAGAGTTGCCTTGATACTATTCCTGATGATA TATACAAGGCAGCCTGTGTTTTTACCACAGAGGAAGCAATT GCTAGTTGTCAGGTTGTCGGTTATCCAGCTATGATTAAAGC ATCTTGGGGTGGTGGTGGGAAAGGAATAAGAAAGGTGAG CTAGTTGTTTGGGATAATGTGGTCAAGAAATTAAGCACC ATCTTCATATATATCTCTATTGCTTATTTATCAACATTTTCAC AGCTTCCATCCTTGAACATCCTTTAATTAGTCAATTGTCTAT AATTATCTACTAGTCTTAAATGATGGACAAATGCTTCAAAC TTGTTAGTTAGCTAGAGACCTGTTAATCTGTTATGCTACTTC AATTTCAATCGTTTTCTTTCAAAATATCAGAAAGACTCAAT AGTTATGCATTTTTAGGTACATAATGATGATGAAGTAAGG GCATTGTTCAAGCAAGTGCAGGGCGAAGTTCCTGGCTCAC CCATATTTATAATGAAGGTGGCTTCACAGGTTAGATATTCT GCAAATTGGTTCTATAATGAATTATATAAGCACTCAGAAGT TCACGGCACTCGTGATCTTAGAACTTGTAATATATGCAAAA TTCTTTGTTTTGACAAGTTGTTATATGTGCTTCATTGAGAGT CGACACTTGGAAGTACATCTACTTTGTGATCAATATGGCAA TGTAGCAGCTTTGCATAGCCGTGATTGCAGTGTCCAAAGG CGGCACCAGAAGGTGGGTCCCTAGTGTACTATCAATAAAC TTTTAATCTTCTTGACCAATTTAGTATTACTTCGGGTCTAAA GTATATTTTTTCAAAGAAAATCGTTATGTCTCATTGTTTTG AAGGAATGTATAAATATTTTGTCCATTGTATTAATTGATCA
--	--	--	--	---

				GATTATTGAAGAGGGTCCAATAACTGTAGCTCCACCAGAA ACTGTGAGAAAACCTTGAGCAGGCAGCTAGAAGGTTAGCCA AATGTGTGAATTATGTTGGAGCAGCAACTGTAGAATATCT G TTCAGCATGGAACTGGCGAGTTTTATTTCTTGAGCTAA ACCCTCGGCTACAGGTTTGAAGAATACACTTGACATTGTA TATTCGTATTTTCCTTAAGAAAAATATTTATGTTGATATTT ATGGTATTGCAACTCAATATCCTCTAGATATATCGTTTTCTA CCGTACGTTTGTGGCTCACTTTATTATGACATGCTTTGTTAA AAAGCCTTGGGATTTCTTAGAGTGAGACATGTCACCCTTGC TTTTCAACTTCTGTGAATCATGTCTTATACTCCCTCCATTTCC TTTTGTTTGTCTGATTTAAATCCTTGGGTGTTGACACTATTCA TAGGTAGAGAGATTCTCTAAATTTATAAGATAAACTTAG CTCTGTGGGGCCTTGTTTAATTCATTTTGATGAGTACTTTAA TGATATTAAATTTTTAGAATTTATATTCATATATAGTTAAAG ATTTGTTAAATGTTTGCTGCGACAAACATGTGATAATGAAA TGGGTCAGAAGAATGGAATGGAGGGAGTACTGCTAAGAA TTATCAATCCTATATGATCATATGATGGATGAAAAAAAAAA TTCTTATTTGACTTTTCTGACAATATTGTATATAATGTCCAT ATGTGCAGGTTTTATTTTAAAAAATTTCCAGTATTGGAAAT CCAGTTAATTTTATTGGTTATTTATTTAATTCCTTCTTTTTTC GCATTTGATATATACAGGTGGAGCATCCAGTAACTGAATG GATTGCTGAAATTAACCTTCCAGCTGCTCAGGTTGCAGTTG GCATGGGTATTCCTCTTTGGCAAATTCCAGGTAGCTTGCAT GTTCCCTTTTTTTATTATATAACTTATGTGCTTCATCTTGTC TTGTGTATGAGTTGGCTTGCTTTTGCAATTTCAAATAGAA ATTCGGCGATTCTATGGTAAGGAACATGGTGGCGGTTATG ATGCTTGGAGAAGAACATCAGTTGCAGCGACTCCTTTTGAT TTTGACAAGGCACAATCTGTGAAACCAAAGGTCAGTGTA CTGCCGTACGTGTGACAAGTGAGGACCCTGATGATGGATT CAAGCCCACTAGTGGGAAAGTACAGGTTAATAATGCTATT GTTTTATAGTTCAAACATTTTCTCAATTGATTGCCTTGTCT GTTTTGTGATTCATGTAAAATTATTTAATTCATTGGTTTCTT TTCTAGGAGTTGAGTTTCAAAGTAAACCAAATGTGTGGG CCTATTTCTCTGTTAAGGTATGTCTTTATTTTTTTTAAGCTTT ACATCATCCTTTATGGACTCATTACGAGCTTAACAATGGT CAACACTGTCAATTGCAGTCTGGGGGAGGCATTCATGAAT TCTCAGATTCTCAATTTGGTAAGTTTAAAGCACATTTTAAA GATGACTAGCAATGAAATGACTATTATAGCTGCCTTTTAAAG AATGAAGTTCTTCAACATCATAGTATTCATTCTCTAATTTAA GACTGCTGCAAATGGATTGAGAACTGTGCTGTTGTGCATG TGAAATGAGATATATTGGTTTTTCATAGTGTGTCATTGTAG ACAGTAAATGCTCTTGTTAATTGTTGATGATTGGAATTGGG ATTTAGCATGCTTGGTGTAGTTTTCTCTTGCAACAAACAAGT CTCACGGAGTTGATGTGTCATGTTTTGTGCGATTATTTTGG TTTAAACATCAAATTTGTTTTCTTTATTTATAGAAGGCT AATGTTAATTAATTTGTTTGTAGGGCATGTCTTGCATTTG GTGAATCAAGAGGGTTGGCCATAGCAAACATGGTTCATGG CTTAAAAGAAATTCAAATTCATGGAGAAATTCGCACGAAT
--	--	--	--	--

				GTTGATTATACCATTGATTTTTTTAAAAGTAAACCTTATACAT TTAACTTTGTAGATTTTAATTGAGCATGTGGCCTTATCCTT TTACATACCCTTTCCGGCTGATTGAGGAATAGGAGTTTCCC GCTATAACCAATGCACACAATGATTTCAAATACAAGGATA AGGATTTTGCTGTAAAATGAAGGTTGTGCCTTTCATTTATT TTTATTTGTTGATGCATTGTGCTGTAAAATTAAGGCCTTCAT TTTCATTTATTTTATTATTTTAAATTGGAGGTATACCACCTTC TTCTAATTGAATTTTGCAATTGTTGCATGATTTTGCAATTGT TGCATGATTATGCTCTACTTTTTAAAGATTGAATTTTGCAATT TGTTGTGTGTGGTGTATGTCAATCAATTATATAAAGTAGAA TGCTAGAGTGAAAATAAATGGTCAGCAGCACTATAGCAGA AAAAAAAAACAAATATAAGGTGTCATATAACACACTCATT ACTCAGGACTACAACCTTACCCCACTTGTTATCGATATTAC CCATTTGCTACATCTCATATGTTCTTACAATTTTTTTTATTCTG TCAAATTTGTAAGACAAGAGGCCTTGATTGTGAATTCCTG TCAATACCCTCTCAATTCTAAAAAAAATATCATGACTACTA GACTATGAGAGTTTTGTTAGATCTTATCAAGCATAAAGGAT TCTATTAAAAAAATAAAATTATACTAGCAGTTGCTACCATT GGAATGTTAATGTTTATCTTCTTGGAGGGTTAGTAATAAC TTAATCAATGAGAGTGACCCACAAAGCTTTCATGATTCTT TATATAAATGATTATTGTTCCCGCTGTAAAATTGTTCCCGTT GTCTCATTTAATTGTTTAAAATGGATAAGATTTGATTAGTTT TACTGTTAATGATGTTTGTGTTTGATTAGTTTTAGTATTTTG CTTAATTGTTGAGATTAATTGTTGAATTAATGTGGGTGATG AACTGTGCAAGGAAGTGCAGTAGCAGCAGCTATGAGAAA TCAGCTACAGTAGGTCCAAGGAATGTAAACAGCAGCTGCAA CTGACCTGGGGGCCTGTGCAAGCTGTTCAAGTTGTCTGGA CTTGTGCAGGCATCCCCGGGGCTTGTGTAGGCAAGGCAGC AGCAAGTGCAACAGCATCAGGTCTTGTAGGACAGTGTCGA CACCGTTTCGGTACATGTAATTTGGCTGTTCAATTGAATAT TATTTGGCATGAAGAAGATCATGAGTTACATGATTATAGA AAATGATTGTCTTCCAGTGAGCTAATCAAGGTCCTCCTAG ATAGCCTCAAGAAGGAAAATGATGTATCTCTTGCTTTATTG CTTCCGAATTTCCCATCTTTTACTCGGTTGTTGTGTTTTTG CCCTTATAATCATGCCCGTCTCAGAAAACTCACCTGCAGC TTTTAATTTGGGTGTCTTTGGCATGCTCATTCTTTTTTTTCA ACCGATTTCAAATTTTTTGATTTATTTACTGTGTTTTATTGCA ACTTGAGTGATTTGTATTTACTTATGATTGTTATAGAATTTT TGTTATGGTTTGGTTTTTGGCTTATTTATTAGCTTGGGTCTG AAATTTGATCTTTCATATGGTCGGGTTTATGAGTTAATTAG GGCGTTTTACTTTCTAGTAATTATTGAGATGATTTATTTTAA AAGAATTAGTTTGACTATATGGAAGAAGTTTTAGTTGTGA ATGTAATATTTGTTTTTTTACAAATACTTTAAATTTGCAATTT TACGGTTGTGTTTAAGAAGAGCAGAAACAGAAGAAGGAA GTGGGAAATCATAGACCACTTCAAGAGATTGGCTATTTTG ATTTTGAATGAGATTTTATGGTGCTATTGTTGCTGGTTGA TTGTTAGAGGATCCTTGCAATTTGAGCGAAAACAAAGCAAT CCAAGTGTAACCTCATGCTAATTTTATGTTTAAAGTTTTTC
--	--	--	--	---

				ATTGTTGATTTTAGATTTCTTAGTCTTAGATATTTGTTTTTG GTATTCATTTTTTAGGGGAAGGAATGTTTATATTCAATTTTC ATCACATCAAGAATTAACATATGATGGAGCAGAGCACACAT GGGCGAGCAGATGAGGTTGTTTTTATCATTGATAATTGA ATGCAACTAACAGGGGCAAACCTAAGTACTCAACTAACTAA TTAGGCAAAGTTACCTATACGACTATAATTGGACCCAATTA AGGTTACTAGCTTGCTGCAATTTTACCAGTTTGCTAAGCAA AATATTACATATTGTATATATAGTTAGAATTTGTCCTTTTGT TCGAGGAAAGAAAAAGTAAGGGATGAAAATTTGAGACTTT CTATTAGCAATTTCAATTAATTCACAAAAAAGGGTCTCAT CTATTTTTTTTATAACTTGTTGCTATAAAATTTGCAATGTGA TTGATTGATTGTTAATATGAATTTGTAATATGTTTTAACAG GATTCCTGTGTCATCTGTGGCTCAAAGGTACTTGACATTAA GATCACAGTAAGTTCATCCAATTATTATAATTATCTTATCAC TTTTGATATTTAATTGTTTCTCAAGGATTATTGAGAAAGTT TCAATTCATTTAGGCCCTTTTGTAGTTAACAATAGGCTAATTC TACTGCCTCTTGTTTTAGGTTGCCTCATAGGCACTCTTACTT CTGAAAATAAACCTCAAATAACCATGATCGACCT
80	Kochia scoparia	gDNA Contig	6978	CAGTCTCTGTTTGAAGAGTATTTGACTGTTGAAGAATTGTT CAGTGACAATATCCAGGTTTGTTATTGCAGTTGCAAATTCA TCAGTTTTTTTGGTCAACCAATTTGTACCGGGACAAATTGC CACAGTCCTAATTTATTGATGATCATCGGTCTTCGTGTTTTT TTCCCGGTTTGGTTGATTGGTTATCATGTTATGAAGTTGTC ACATAAAAAAACCTAAATTTACTAATGCACCCATTTGACC CTAGAGGCTACAGAGTCTTTGGAGTACTCTGTCTCTGTGGA TTATAGTAGCATCCTTTGAAGTATTACTTTATTTTTTCAAGA AATTGTAGTTCATGTCTTTTGATTCTGATCTTGAAAGGAAG GCTGACATCATTCCACTTTATTTTCTAATTTCAATCTATACA GGCTGATGTGATTGAACGTCTCCGCCTTCAACATAAAAAA GACCTGTTAAAGGTTGTTGACATTGTCCTATCACATCAGGT AGGCAGGAAATTTCAAATAATTCAAATTAAGTTTGAGTTTT CTTTCCCTTTTCCCTTGTAATATCTTCCAGGCTTGTTTACTA TGTAGTAATAATGGCTTTCAGGGTGTTAAGAACAAAAATA AATTGATTCTCCGGCTCATGGAACAACCTGGTTTACCCAAAT CCTGCCGCATACCGGGAGAAGCTTATCCGTTTTTCACAAC AAACCATAACAATCTACTCTGAGGTTAGTGATTATTCAATTTT TTGTTTATATTGTCACACTACAGCATTACAAAAAGGTTATT AAGTTTATACACTAATCAATTCCTTCACTATATGCAGTTGGC ACTTAAGGCAAGTCAATTGCTTGAACAAACCAAGTTGAGT GAACTTCGTTCTAATATTGCCAGAAACCTTTCCGAGTTAGA AATGTTTACAGAAGATGGTGAAAACATGGACACTCCAAAA AGGAAAAGTGCTATTAATGAGCGTATGGAGGCTCTTGTGA ATACTCCGCTTGCTGTTGAAGATGCCCTTGTTGGCTTGTTT GATCACAGCGATCATACGTTACAAAGGCGGGTTGTTGAGA CTTATGTCCGGAGACTTTATCAAGTAATATCTAAGTTCCAA CAGTAAACTTTAACTATCATTTAATAATGTTATGTCATATAA CTCTATTTTTTGTGGGTAATCTCTTTTCTCAGCCTTATCTTGT AAAAGGAAGTGTCAGGATGCAGTGGCACAGATCTGGCCTC

				ATTGTTTCTTGGGAGTTCATGGAGGAGCACATTGAAAGAG CAAATGCCTCTAATGATCTGTCCATCAACCAGCCCCTTGTT GAGAAACACAGTGAGAGAAAATGGGGAGCCATGGTCATC ATAAAATCTCTTCAGTTTTTGCCAACAGTGATTACTGCTGC ATTAAAAGAGACAACACATAATTCAGATGAAACGATTCCC AGAGGCTCTTTAGAATCAATCAGTCATGGAAATATGTTGCA CATTGCACTTGTGGGTGTTAATAACCAGATGAGCTTGTTGC AGGATAGGTATAGATTCTATTTTTATGGTTTAAGCAAGATT TTAAAATGTGAACATTGGACTATCCAATTTTATTTATGTTTA TTTATTTATTTATTTTTTTGACGAGGACTATCCAGTTTTTTTG AAGAAATATGCTTTGCTTCAATTATGCAGTCGCTCTTTATA GTAACCATTCCGGCCTTTTGCTTAACCTTTTTTCTCTGTGG GGTTTATGAAATGGAATTTTATACTATGCAGTGGTGATGA AGATCAAGCTCAAGAGAGAATTGATAAGTTGGCAAAAATC CTGAGAGAGAAAGAAGTGAGCTCAGGTCTTCGTGACGTTG GTGTCAGGGTAATTAGTTGCATTATACAGAGAGATGAAGG AAGAACGCCAATGAGGCATTCACTTATTGGTCAGAAGAG AAACAATACTTCAATGAAGAGCCTTTACTACGTCATTTGGA ACCTCCTCTATCAATATATCTTGAATTGGTATGATATTCTGA GCAAGAAGCTGTTGTTTTCTTGTTTATTATTTCTTGTTTCT TAATATGGGTCAAATCATTATCTTTAACATTTTTGTCATAT TTGATATAGTTATAAGGTATTTGGCTCACAACCTTTCCTTACA CAGGACAAGCTCAAGGTCTATGAAAATCCCAAATATACTCC TTCTCGGGATCGTCAATGGCACCTGTATACTGTCATGGACA AGCCATCTATTCGACGAATGTTTTTGAGGACACTTGTCAGA CAGCCCCTTCCGAGTTCAGTGGGGTTGAACTAAAAATTCT TCAAACACAAAGGCCCATCTCCTTTACTTCAAGAAGCATTCT TGAGGTCTTTAACAACCTGCAATGGAAGAATTAGAACTCAA TGCGCACAATGCTACCTTGAAACCTGATCATGCTAATATGT ACCTGTACATTGTAAGAGAGCAACAAATACATGATCTTGTC CCATATCACAGGTTCTAATTACTATTCTTAATTTTATGTGTC TCATTTGTGGTTATTGATGCAACTTATGCTTTAAGAGGGAT TATTTTGATCCGTTAATCCAGGGAGGTGAACATTGATGAC GAACAAGAAGAGACAGCTGTTTCATATGTACTTGGAAGAGC TTGCGCTTGAAATCCACAGTTGTGCTGGTGTGAGAATGCA TAACTAAATGTATGTGAGTGGGAAGTAAACTTTGGATA TCATCTTCTGGTCAAGCCAATGGTTCATGGAGAATCATTGT TACTAATGTGACTGGTCATACATGCACTGTACATGTAAGTT TGAACATGATGATTTTTTCTATAATTTTCTGTAAAGGTTT TTAGTATTGGCCGTGTTTAGTAATTTCTTCAACACTCAGAT ATTTATGCCAGTTTTTGTAAGAATTACAGAAATAGTAGCAT GTTTTTAGTGCCCAAGTCTTTCTTTGTCCTTTTGCCAGCA ATATCTTTAATAATTTATGGTTATAAACTATAAGATATTATG AGACTATACATCGAGAAAAATCTAAATACATCTTCCATTAC AACCTTTGATTTTTTTTTTTTTTTTTTAAATTGAAAAACA ATGGGTAAAGGTGATACATGAATCTTGTAACACACAAACA ATGACCATACATATGGGACGGAGGGAGTAATAATGGTTTG TATATTGGCACTTATAAAGAAAAAGGTTATGCACGATTAAT
--	--	--	--	--

				TTATGTCTTGTAGACGTGTATCACATAATGTCTTCTTTAGTT TGCTGACCTTTTTCTACTAATGTTATGCAGGTTTACCGTGA GTTGGAGGATAACAACCTTCATGAAATGATCTACCATTGAG TATCTGTTCAAGGTCCTCTTCATGGAATACCAGTGAATGCA CCCTATCAACCACTTGGAGTCATTGCTCGTAAAAGACTGCA GGCCATGAAAAACAGCACAACTATTGTTATGATTTCCCAC TGGTAAGAGATATCAAACCTCCACTGTACCACAATACTACAA AAGCAGAATTTACAGTATTAGGTTTCCTTTCTCCAAAAAA ATCAAGGGTTGATGCATGACTTACATTCGAGTGTAACATG GTTCTTGTTTACGCTCAACTAGTAATGAAATAGGAATATAA ATCTAATAAAGATTTACAAATTTTGGAGAGAGGGCGGGGTT GTGTAACGTGGGACTTTGTAAAGGTTTAAAGTTAGTTAG GTGGAGATGCAGGGTTTATATTTAGTTTATGAGGAACTA CAAGTTTACAAGATTTTAATAGGTAATACGTGTAAAATTTT AAAAGATATCGGAAAAGTTGCTAGAATAAAGGAAGTTTAG CTAACTTTAAAGAATATTTGTCTTAGTATTTTGGATTATTGT AACTTTGTAAATAAAAAATAGTTTCACATTTTGTAAAGATTTC AAGTTTGGCTTTTCGCACACAATGGGTCTGTTCTTTTCACCTT ATCTGTACTTATCCGAACCTTTCCGAACCTTCTATGAACCTGT TTTGTGAGAGAGAAAAATAATAAGTTTGTCTTTTCAACTT ATTTTTATTATCTGAACCTATTTGAATTTATTTTTCTGAAA TTAAGTAAAAATAAGCTCAATAGAACATACCCAATGTAGA AAAATAGAATTAACAAAGAAATAGTGGGGAAAAAAAGT GGAGGTGATTTGTGTCTCTTGTGGGCATTAGTTTAGTAACA ACTAGAGTAATGGATATAGATGACTTATTTTAAATTCATTG TATGACATACATCAAAAACCTGAAATTTTAGTGATATCAAA TTGGCCTTAATTAGTAATTTAGTTGTTTGATATTGTTGGTTA TACAAGTGAAAACAGATACTTAATATGCGAATGATTGTGC CTATAGTGATTATGTGACTGTGTTGTTAAATATAAAAGTGT TTCAGTGTTTTTAAGACAAGGGAAGTAGGGAACCATAAAC AAAAATACGAAGCATATCTTGGGTGTTACCTAGTTTTGTCC TATTTCTCAATTATTGATTTAGTTGTTTAAATTTGTTGGTTATA AAAGAGAAAAACCGGGATTGTTGGTGTGCAAAGATTGTAC CTATAGTGATTATGTGACAACGTTGTCAAATGTAAAAGCAT TGCAATTTTTGTGAGGCAAAGGAACCATAAATAAAAATGC GAAACATGGCTTGGGTGTTACCTAGCTTTGTCCTATTTATT GAACTATGTGATTGTACCTCAAATTTTTATATTTGATGTTGT ATCGATCAACTTGCTTTAGCTCACGTTAGCATTTATCTGTTT TTCTATTGGAAAATTGACCTGAAATTATTGGGAATGTTTTT CTCAGGCTTTCTCTACTGCCTTAGAGCAATCATGGGCATCT CAAGCTCCGCTTCTGAAGAAACCCGTTAACAAAAAAGTTTT GAAAGTCTCAGAGCTAGTATTTGCTGATTCAAATGGCACCT GGGGAACACCAGTTGTCCCGACAAATCGTGAACCTGGTCT TAACAATATTGGCATGGTTGCCTGGTCCATGGAGATGTCA ACTCCTGAATTCCCTGATGGAAGAACCATATTGGTTGTAGC AAATGATATCACCTTCATGGCTGGATCATTTGGGCCAAAAG AAGATGCTCTCTCCAGGCAGTTACAGATCTTGCTTGTTCC AAAAAAATTCCTCTGATTTACCTGGCTGCTAATTCTGGTGC
--	--	--	--	---

				TCGACTGGGTGTTGCTGAAGAGGTAAGAGCATGCTTTAAA ATTGGTTGGACCGATGAGTTGAACCCTGAGCGGGGGTTCC AGTATATCTACTTGACTCCTGAAGATTATGAGCGTATAGGG TCAGCAGTTATAGCCCATGAGTTAGAACTCCAAAATGGAG AGACTCGGTGGGTTATAGACACTGTTGTAGGGAAGGAGG ATGGGATAGGTGTTGAGAACTTATCTGGAAGTGGAGCTAT AGCTGGTGCCTACTCAAGGGCATACAAAGAACTTTTACTC TAACTTTTGTAACAGGAAGAACAGTAGGTATTGGTGCCTA TCTTGCTCGCCTTGGGATGCGTTGTATCCAAAGGCTTGATC AGCCCATATTCTGACAGGCTTTTCTACGTTAAATAAACTTC TTGGTCGTGAGGTTTACAGCTCACAAATGCAACTTGGCGG GCCCAAGATTATGGGTACAAATGGTGTGTTCAATTAACAG TTTCAGATGACCTTGAAGGCATTTTCAGCTATTGTCAAGTGG CTCAGCTATGTTCCATCCTACTCAGGAGGTGAACTTCCTAT TTCACGTTCTTTAGATCCTCCTGAAAGACAGGTTGATTATTT GCCTGAAAATTCTTGATCCCCGTTCTGCTATATCTGGTA CACTTGACTCTAATGGCAATTGGCTTGGTGGAATTTTAC AAAGATAGTTTTGTTGAAACCCTAGAAGGCTGGGCAAGGA CAGTTATCACTGGCCGGGCCAACTTGGTGGAATCCCAGT TGGGATAGTTGCTGTTGAGACACAACTGTGATGCAAGTT ATCCCAGCAGATCCTGGTCAGCTTGATTCGCATGAGCGAG TGGTCCCACAAGCTGGACAAGTATGGTTTCCAGATTCTGCA ACTAAGACAGCACAAAGCTTTGATGGATTTTAAACAGGGAAG AACTTCCACTTTTCATTCTAGCTAACTGGAGAGGCTTCTCTG GAGGGCAAAGGGATCTCTTTGAAGGGATTCTTCAGGCAG GGTCCACAATTGTCGAGAACCCTTAGGACTTATAATCAACCT GTTTTTGTTTATATCCCCATGATGGGTGAACTTCGTGGTGG GGCATGGGTTGTCGTAGACAGTAAAATCAATTCGGACCAT ATTGAGATGTATGCTGATCAGACAGCTAAAGGAAATGTTT TTGAGCCAGAAGGAACGATTGAGATCAAGTTTAGAAACAA GGAATTAATTGAATGTATGGAAAGGCTTGATCAACATCTC ATCAATCTTAACGCAAACTCGTCGAAGCCAAAAACTCCAA TTATATGTTAATATCGAACTCCTGAAACAGCAGATAGAAG CTCGGCAGAAGCAACTTTTGCCTCTATATACTCAAATAGCC ACAAAATTTGCTGAATTGCATGATAGTCCTTATAGAATGGC TGCGAAAGGAGTCGTCAAGGAAGTCCTGGATTGGAGCAA TTCTCGCTTATTCTTCCACAAAAGACTGTACAGGAGAGTTA TGGAGGAATCACTTGTCAAGACCGTCCGAGATGCTGCTGG TGAAGCAATGACCCACAAGTCTGCCATGGAATTGATCAAG CAATGGTTTGCTGAGTCTGATAGTACTAGTGGAGTGGGAG CTGATCCTTGGTCTGATGATGAAGCTTTCTTCAAGTGGAAA GAAAATCCTGCTAATTATGAAGAAAAGCTAATCGAGTTGC GCATACAGAAGGTATTGCATCAGCTGTCAAATATTGGCAA CTCGGCTTCTGATCTGAGAGCTCTTCCTCGGGGTCTTGCTG CCCTTCTCCAGAAGGTATCTCTAAGTC
81	Kochia scoparia	gDNA Contig	4017	TTCTTTTCAACTTATTTTTTATTATCTGAACTTATTTGAATTT ATTTTTTCTGAAATTAAGTAAAAATAAGCTCAATAGAACAT ACCCAATGTAGAAAAATAGAATTAACAAAGAAATAGTGG

				GGAAAAAAGTGGAGGTGATTTGTGTCTCTTGTTGGGCATT AGTTTAGTAACAGCTAGAGTAATGGATATAGATGACTTATT TTAATTCATTGTATGACATACATCAAAAACCTGAAATTTTA GTGATATCAAATTGGCCTTAATTAGTAATTTAGTTGTTTGA TATTGTTGGTTATACAAGTGAAAACAGATACTTAATATGCG AATGATTGTGCCTATAGTGATTATGTGACTGTGTTGTTAAA TATAAAAGTGTTTCAGTGTTTTTAAGACAAGGGAAGTAGG GAACCATAAACAAAAATACGAAGCATATCTTGGGTGTTAC CTAGTTTTGTCCTATTTCTCAATTATTGATTTAGTTGTTTAA TTGTTGGTTATAAAAGAGAGAAACCGGGATTGTTGGTGTG CAAAGATTGTACCTATAGTGATTATGTGACAACGTTGTCAA ATGTAAAAGCATTGCAATTTTTGTGAGGCAAAGGAACCAT AAATAAAAATGCGAAGCATGGCTTGGGTGTTACCTAGCTT TGTCTATTTATTGAACTATGTGATTGTACCTCAAATTTTTA TATTTGATGTTGTATCGATCAACTTGCTTTAGCTCACGTTAG CATTTATCTGTTTTTCTATTGGAAAATTGACCTGAAATTATT GGGAATGTTTTTCTCAGGCTTCTCTACTGCCTTAGAGCAA TCATGGGCATCTCAAGCTCCGCTTCTGAAGAAACCCGCTAA CAAAAAAGTTTTGAAAGTCTCAGAGCTAGTATTTGCTGATT CAAATGGCACCTGGGGAACACCAGTTGTCCCGACAAATCG TGAACCTGGTCTTAACAATATTGGCATGGTTGCCTGGTCCA TGGAGATGTCAACTCCTGAATTCCTGATGGAAGAACCAT ATTGTTGTAGCAAATGATATCACCTTCATGGCTGGATCAT TTGGGCCAAAAGAAGATGCTCTCTTCCAGGCAGTTACAGA TCTTGCTTGTTCCAAAAAATTCTCTGATTTACCTGGCTGC TAATTCTGGTGCTCGACTGGGTGTTGCTGAAGAGGTAAAG GCATGCTTTAAAATTGGTTGGACCGATGAGTTGAACCCTG AGCGGGGGTTCCAGTATATCTACTTGACTCCTGAAGATTAT GAGCGTATAGGGTCAGCAGTTATAGCCCATGAGTTAGAAC TCCAAAATGGAGAGACTCGGTGGGTATAGACACTGTTGT AGGGAAGGAGGATGGGATAGGTGTTGAGAACTTATCTGG AAGTGGAGCTATAGCTGGTGCCTACTCAAGGGCATACAAA GAACTTTTACTCTAACTTTTGTAAACAGGAAGAACAGTAGG TATTGGTGCCTATCTTGCTCGCCTTGGGATGCGTTGTATCC AAAGGCTTGATCAGCCCATTATTCTGACAGGCTTTTCTACG TTAAATAAACTTCTTGGTCGTGAGGTTTACAGCTCACAAAT GCAACTTGGCGGGGCCAAGATTATGGGTACAAATGGTGTT GTTCAATTAACAGTTTCAGATGACCTTGAAGGCATTTTCAGC TATTGTCAAGTGGCTCAGCTATGTTCCATCCTACTCAGGAG GTGAACTTCCTATTTACGTTCTTTAGATCCTCCTGAAAGAC AGGTTGATTATTTGCCTGAAAATTCTTGTGATCCCCGTTCT GCTATATCTGGTACACTTGACTCTAATGGCAATTGGCTTGG TGGAATTTTTGACAAAGATAGTTTTGTTGAAACCCTAGAAG GCTGGGCAAGGACAGTTATCACTGGCCGGGCCAACTTGG TGGAATCCCAGTTGGGATAGTTGCTGTTGAGACACAACT GTGATGCAAGTTATCCCAGCAGATCCTGGTCAGCTTGATTC GCATGAGCGAGTGGTCCCACAAGCTGGACAAGTATGGTTT CCAGATTCTGCAACTAAGACAGCACAAAGCTTTGATGGATTT
--	--	--	--	--

				TAACAGGGAAGAACTTCCACTTTTCATTCTAGCTAACTGGA GAGGCTTCTCTGGAGGGCAAAGGGATCTCTTTGAAGGGAT TCTTCAGGCAGGGTCCACAATTGTCGAGAACCTTAGGACTT ATAATCAACCTGTTTTTGTATTATATCCCCATGATGGGTGAA CTTCGTGGTGGGGCATGGGTTGTCGTAGACAGTAAAATCA ATTCGGACCATATTGAGATGTATGCTGATCAGACAGCTAA AGGAAATGTTCTTGAGCCAGAAGGAACGATTGAGATCAAG TTAGAAACAAGGAATTAATTGAATGTATGGAAAGGCTTG ATCAACATCTCATCAATCTTAACGCAAACTCGTCGAAGCC AAAAACTCCAATTTATATGTTAATATCGAACTCCTGAAACA GCAGATAGAAGCTCGGCAGAAGCAACTTTTGCCTCTATAT ACTCAAATAGCCACAAAATTTGCTGAATTGCATGATAGTCC TTATAGAATGGCTGCGAAAGGAGTCGTCAAGGAAGTCCTG GATTGGAGCAATTCTCGCTTATTCTTCCACAAAAGACTGTA CAGGAGAGTTATGGAGGAATCACTTGTCAAGACCGTCCGA GATGCTGCTGGTGAAGCAATGACCCACAAGTCTGCCATGG AATTGATCAAGCAATGGCTTGCTGAGTCTGCCATGGATAG TACTACTAGAGCGGGAGCTGATGCTTGGGCTGACGATGAA GCTTTCTTCAGGTGGAAAGAAAATCCTGCTAATTATGAAGA AAAGCTAATTGAGTTACGCATACAGAAAGTATTGCATCAG CTTCAAATATTGACAACCTCAGCTTCTGATCTGAGAGCTCTT CAGCTTCGTCAGGGTCTTGTTGCCCTACTTCAGAAGGTATC TCTAAGGTTCTCCACACACACACACACCCCAACCAAAA AAAAACACACACACACACATTCAAGAAAAGTAGAATTG CTAGTGAAATAACTTCATCGTGTTCAATGCAGGTGAATTCC TCAAGCCGAGCAAATCTAGTAGAGAACTCGAGAAAGTGC TCAATTGATTTGGTAATGATCCTGCAGAAAAACCTCTTGGT ATATGGTGGTATGCAAATGCCATATCTGAAAGATTGATTA GGCAAGTTGAGACAGAGACAGGCACAGTTGTAATAATGG GATCTATCAAACCAGAAGACGTTATAACTAAGCTCAAAGA TGATGGTGATTTTGACCGTCTTCGTCTCAAATCATTGTA AGCTCAAACAAAACGTATTTCTTTCTCTTTTCATCTTCTACT GTATATTAAATGGTTTAAAATTTGATCTTGATTAATGGGTA ATCTTTATAATTTTATCTTTTTTATTATAATACAAGAATGAT ATGCATATTTTTATTTTGTTATTAATTACCAAATGCACTTCA GTTTACATTGCCGTTTTGAAGTTTTGGAAGCAGAATTGG GGTTAGAATGCTAGATATTATTGCTTGTTGATCATTTATTCA GTTACTTACATTGTTTGTTGAAATCGGAATTAAGAGAGCA CAAATTGTATGGTTTCTAACTCGACTTCACAATAAGAGTAT AGATGCTCACTGTTGTGTTGTGTGTTTTGTTTTGTTAAGAA ATATTGGTTTTGATTGATGATGCTCCAAGCCTCGAGTGAGC GTGTTGATGAAATAGAGTACTGAATTAAGGTTATCATTTT ATCGAATGTCAGATTAATTGTTAATTGTTGCTCGGAGTCGG AGTTTAAATGAGAATCATTTTATCGAATGTCTTAAGTTATC AGGGCAGATATTTTTTTCTAGTGGGTATGGACTCTTGAGC CTTTTTTTCTGTATCAAACCTGTCCTGTTGGTTGTTCAAATT ATGCAAATCATGAAGAGATTACTTTGGTCTCAGGTTTGCTT CGCCATCCTTCCAATGAATC
--	--	--	--	---

82	Kochia scoparia	gDNA Contig	2591	ACAATGAGGCCTGGTATTTTATAAAAAAGAAAAGAATTGT TAGTGCTAAAACTCCTCGTATACAAAGTTACAAACAACAC CCAGCATCCATTTTGCATATCTAACACAAAATATACAAAAC ATATTAGGCAGGACAACCAAGAATTCAGAGGGGAAATCTTA AAATATGTTAATGCGGGCAGTACGATTCCACTGCGAAAAA TTTACTCACTTAGACCAAGGTTAGGAACAACAATGTACACG AATGTTGAGCAGAGAAAAATATACAAATGAAGCAGTTCA TATACAATAAAAGGCAGAGAAGATGCCCAATATTCCCCTTT CAATCGAAATTCACAATTGATCTTGTCTATTAGAAAAGTGAA ACAAGAGGGTCTCATCGTAATTAAGGGAATGAAGTATGCT TCAGCCATACCCAACAGTACCTTACAATAACTGTCAAGTTT CCTCACTATCTTGAGCTGCCCAAGATGGTGCAGCAAGCACT TGCGCTGCTAGTCTCAGAAAAACAACCTATAGGCAATCCCAT CAAGATCTTGTTTTCTTCCAGGAATTAAGTATAGTTTCAGTTTC ATCAACATCCAAACATCAAAAACAAAATGACCTGAGATAG AAAAGAGCACTTACAAGCACCTTTTGATGTGCAACAAAAG AACAATTTCTCAGACGAAGCACTCTTCTCTTACCCAAAAT AGGCTACACACTCATTCAGATCTCAGGGTTGCTACACTCAT ATCGATCCCAGAAATCTTTCGTTTTTAGGGAGCAGATTTCC TCGCAAATGAGCATGTAAGTACTAGTTTGAAATTATCTACA CTACAACCTTGACATCAATATCAGACTCTGACAGCCAGGGCC AAAGCCATCGGATTTGGTTACTCATCTGCTCACACAAATTG AAATGTCCGGGACATAGAAGAAAAAAATACACCTATGATG GTCTTGCGAAAACTATTAAATAAAGTACTATATTTATCTTC TTATTAGACCATTTTAGATCAGAGAATGTTGCTTAAATAT CCTAAGGAAAAAGCTCAGGCTATATGATTGTATTACACCAT ATTATTGATATCCCAGAGTGCCTAAGGGACTGGTGAATTT GGTGTTAAGCAGATGTTATCAATCCCACTACATCATATCC CATCTACTAGGCAGGCAGCGGCAAGGCAATAATGTTAGGG AAAAAAATCCCATTATCTCCATTAGAAAACCTATCATATTAG TCTTTAAAATTTAAACAAAAAGGAATTTCAAAACAAAATGT TGATTTCAATAGGCTATGTAACCTAAGCAATGTTAACAAGC AGAATGCTGGTTTCACTAGAAGAGCTAGTGGGCTACAGGC TACAAATTATCTAAGCCATTCTTGTTTCCTATGATTAGTTTT AATAGGCATAATAGCATAAATTCTTCTATACACATCTGCCG GCATTTACTGCATCACTACATTACCCGTTGTTGATGAATTTT TTTTATGCTCTTGGAGGGGAAAAGGTCAATTCATAGTATTTG GATTGCAAACAATGGAATGACAACCTGTTAAATTTATCAGA AGTGTTTCGGACATGGGCTTATGAAAATTTTGGAACAGAGA AGGCTATTGTATTAGTAGCAATGGCTACTCCAGAAGACAT GAGAATCAATGTTGAACACATTGGAATTGCTCACCAGTTTG TTGAGGTTCTGGTGGGACTAACAACAACCTATGCCAATGT ACAACTCATTGTTGAGGTAAATCCTGCTTTAGTAACACTGA TCTTCCGTGTTTTTGCCTAATGTTGATTATACCATTTATCTT TTAAACGTAAGCCTTATACATGAATTTTCCCCTACACTGTT CACTGTTTTTTCAATTAGAACCTAAATTTGTCTTTGTTTTTCC CTTTCTCTAGTCTTTGGATTACAAAGATAATAAAATTCATAC GGGTTGGTTAGATAGTAGAATTGCAATGAGAGTCAGAGC
----	--------------------	----------------	------	---

				GGAAAGGCCCCCCTGGTTCATCTCTGTGGGGGGAGGTGCA CTCTACGTGTGTACAACCTTTCTCTTAAATTTTTTTCCTTCCA AAAGCTTGATGTGTCACCTTCGTTTATTTTATAATGAATAA TTTTAAATACTTCGTAATTTCTTTCTCCTTTCTCCCTATCTTC AGTAAGCTTCTTCTAGTAGTGCAGCTACTGTTTCAGAATAT ATTGGCTATCTTGAGAAAGGTCAAATTCCTCCAAAGGTAAT CCAAACACCAGATGCTGTTGAGATATAATTGTTTTTAAAC ACTAATTGTTTCTTTCAGTAAATTACATCAATATTTGTGTGG ATTGCAGCATATTTCACTTGTCCACTTGGAAGTTACTTTGA ATATTGAGGGGAGCAAGTACACTATAAGTTTATTATTAAGT TATGTGAATTTCATTTTTCGTTTCATGGTTTCTCCTGTTTACTT GATGTTAATCATCATAACATGGTTGATTCTGTTCTCCAGAT CAAATGGTGAGAGGCGGTCCAGGAAGCTACAGATTGTG ATTGAATGAGTCAAAGATTGAGGCAGAAATACATACATTA AGTCATTAAGAGATGGGGGTCTTTTAATGCAAGTAAGAAC TTAATTTTAA
83	Kochia scoparia	gDNA Contig	704	GTGTTTCGGACATGGGCTTATGAAAATTTTGGAACAGAGAA GGCTATTGTATTAGTAGCAATGGCTACTCCAGAAGACATG AGAATCAACGCTGAACACATTGGAATTGCTGACGAGTTTGT TGAGGTTCTGGTGGGACTAACAACAACTATGCCAATGTA CAACTCATTGTTGAGGTAAATCCTGCTTTAGTAAACTGAT CTCCGTGTTTTTGCACATAATGTTGATTATACCATTGATCTT TTAAACGTGAGCCTTATACATGAATTTCCCTACATTGTT CACTGTTTTTCAATTAGAAGCTAAATTTGTCTTTGTTTTTCC TTCTCCAGTCTTTGGATTACAGAGATAATAAAATTCATAC GGGTTGGTTAGATAGTAGAATTGCAATGAGAGTCAGAGC GGAAAGGCCCCCCTGGTTCATCTCTGTGGGGGGAGGTGCA CTCTACGTGTGTACAACCTTTCTCTTAAATTTTTTTCCTTCCA AAAGCTTGATGTGTCACCTTCGTTTATTTTATAATGAATAA TTTTAAATGATTTCTTTCTCCTTTCTCCCTATCTTCAGAAAGC TTCTTCTAGTAGTGCAGCTACTGTTTCAGAATATATTGGCT ATCTTGAGAAAGGTCAAATTCCTCCAAAGGTAATCCAAACA CCAGATGCTGTTGAGATATAATTGTTTTTTAAACACTAATT GTTT
84	Lolium multiflorum	cDNA Contig	842	GACATGAGGATAAATGCAGAGCACATTAGAATTGCTGATC AGTTTGTGTAAGTACCTGGTGGAACAAACAATAACAATA TGCAAATGTCCAACCTCATAGTGGAGATAGCAGAGAGAACA GGTGTTTCGGCCGTTTGGCCTGGTTGGGGCCATGCATCTG AGAATCCTGAACTTCCAGATGCACTCACTGCAAAAGGAATT GTTTTTCTTGGGCCACCAGCATCATCAATGAACGCATTAGG TGACAAGGTTGGTTCAGCTCTCATTGCTCAAGCAGCAGGG GTTCCGACTCTTGCTTGGAGTGGATCACATGTGGAAATTCC ATTAGAACTTTGCTTGGACTCTATACCTGAGGAGATGTATA GGAAAGCTTGTGTTACTACCGCGGATGAAGCAGTTGCAAG TTGTCAGATGATTGGTTATCCTGCCATGATCAAGGCATCCT GGGGTGGTGGTGGTAAAGGGATTAGAAAGGTTAATAATG ATGATGAGGTTAAAGCACTGTTTAAGCAAGTACAGGGTGA AGTTCCTGGCTCCCCAATATTTATCATGAGACTTGCATCTCA

				GAGTCGACATCTTGAAGTCCAGCTGCTTTGTGATCAATATG GCAATGTAGCAGCACTTCACAGTCGTGATTGCAGTGTGCA ACGACGACACCAAAAGATAATTGAGGAAGGACCAGTTACT GTTGCTCCCCGTGAGACAGTGAAGGAGCTTAGAGCAAGC GCAAGGAGGCTTGCTAAGGCTGTGGGATATGTTGGTGCTG CTACTGTTGAATATCTCTACAGCATGGAGACTGGTGAATAC TATTTTCTGGAGCTTAATCCACGGTTGCAGGTTGA
85	Lolium multiflorum	cDNA Contig	732	GCAGAGCTACGTGGAGGGGCTTGGGTCGTGATTGATAGC AAGATAAATCCAGATCGCATTGAGTGCTATGCTGAGACAA CTGCAAAAGGGAATGTTCTCGAGCCTCAAGGGTTGATTGA GATCAAGTTCAGGTCAGAGGAAGTCCAAGAATGCATGGGT AGGCTTGATCCAGAATTGATAAATCTGAAAGCACAACCTCC AGGGAGCAAAGCATGAAAATGGAAGTCTATCTGATGGAG AATCCATTCAGAAGAGCATCGAAGCTCGAAAGAACAGTTG CTGCCTTTGTACACTCAAATCGCGATACGGTTTGCTGAATT GCATGATACTTCCCTCAGAATGCTTGCTAAAGGTGTGATTA GGAAAATTGTAGATTGGGAAGAATCTCGGTCTTTCTTCTAC AAGAGATTACGGCGGAGGATATCTGAGGATGTTCTTGCAA AAGAAATAAGAAGTGTAATTGGTGTGAGTCTTCTCACAA ATCAGCAATGGAGTTGATTAAGAAGTGGTACTTGGCTTCT GAGACAGCTGGAGGAAGCACTGAATGGGATGATGATGAT GCTTTTGTTGCCTGGAGGGAGAACCCTGAAAACCTACAAGG AGCATATCAAAGAGCTTAGGGCTCAAAGGGTATCTCAGGT GCTCTCAGATGTTGCAGACTCCAGTTCGGATTTACAAGCCT TGCCACAGGGTCTTCCATGCTACTAGATAAGATGGATCCC TCTAGGAGAG
86	Lolium multiflorum	cDNA Contig	668	CGTTATTGATCTAAAACGATGCTCTGCCAGGGCCAACAGA ACTACATACTGCTACGATTTTCCCTTGGCATTGAAACTGC AGTGACGAAGTCATGGTCTAACATTCCTAGAAACAACCAA TGTTATGTTAAAGCGACAGAGCTGGTGTGTTGCTGACAAGA ATGGGTCGTGGGGCACTCCTATAATTCCTATGCAGCGTGCT GCTGGGCTCAATGACATCGGTATGGTAGCCTGGATCTTGG ACATGTCCACTCCCGAATTTCCAGTGGCAGACAGATTATT GTTGTCGCAAATGATATTACTTTTAGAGCTGGATCATTG CCCAAGGGAAGATGCATTTTTGAAGCTGTTACCAACCTG GCTTGTGAGAGAAAGCTTCCTCTTATCTATTTGGCTGCAAA CTCTGGTGCTCGGATTGGCATTGCCGATGAAGTTAAATCTA TCTTCCGTGTTAAATGGATTGATGATAGCAACCCTGAACGT GGATTTGATTACGTTTATCTGTCTGAAGAAGACTATGGCCG TATTAGCTCTTCTGTTATAGCGCACAAAGACACAGCTAGATA GTGGCGAAATAAGGTGGGTTATCGATTCTGTTGTGGGCAA GGAGGATGGGCTAGGTGTGGAGAACATACATGGAAGTGC TGCTATTGCCAGTGCGTATT
87	Lolium multiflorum	cDNA Contig	469	AGGGCGTCCTCCAATGCGCCATTCTTCCAATGGTCATTG ACAAGCTATATTATGAGGAGGAGCCGATGCTCCGCCATGT GGAACCTCCTCTGTCCACATTCTTGAATTGGACAAAGTGA AATTAGAAGGTTACAGTGACATGAAATACAATCCATCGCG TGATCGCCAGTGGCACATTTACACACTGAACAGTGAAGAT

				CCAAAATCAAATGACCAAAGGATATTCCTTCGTACAGTTGT TAGACAGCCAAGTTTAACCAATGGGTTTTTGTGGGAAGTA TCGACAATGAAGTAGGCCGTTCTCAGGCCACATCGTCATT ACATCTAACAGCATACTTAGATCATTGATTGCAGCGCTAGA AGAAATAGAGTTACATGCTCATAATAAGGCCATGAGGTCA CGCCATTCCCACATGTATCTGTGCATGTTGAGAGAACAACG GTTGTCTGATCTAATTCCATTT
88	Lolium multiflorum	gDNA Contig	4094	CACTTCTAAAGCCACAAGTAGAGGATCCCATTTCGCAGGCG ATGGGGTGTAATGGTTGTAATCAAGTCTCTTCAGCTTCTGC CAACTGCAATTGAAGCTGCATTAAAGGAGACTTCACATTAT GGAGCAGGTGATGCAAATGTCTCCAATGGTAGTCCTATAA GATCTAATAATAGCAATATGCTGCATATTGCTTTGGTTGGT ATCAGAAATCAGATGAGTACTCTTCAAGACAGGTTTCGTTTA CACTCTCTACTCTTTGCGATTCTTTATTCTTGATGAAACACA AAATATCATAAGAGTGATTCTATGAACTGGTTCTGAATTC ATGAAATTTTTAGTTACACCCTCCACTTTGTTTTCTTTTTTA GTGGTGATGAGGATCAAGCACAAGAAAGGATCAACAAAC TTTCCAAGATTTTGAGGGATACCACTATAACATCACATCTC AATGGTGCTGGTGTTAGGACTGTCAGCTGCATTATCCAAA GAGATGAAGGGCGTCCTCCAATGCGCCATTCTTCCAATG GTCATTTGACAAGCTATATTATGAGGAGGAGCCGATGCTC CGCCATGTGGAACCTCCTCTGTCCACATTCCTTGAATTGGT ATGCAGCTTTAGTTTTGGCTTATGTTCTCTTCAACAATACCA GTACCTCTAATAACTTATCTGTAAATACAGGACAAAGTGAA ATTAGAAGGTTACAGTGACATGAAATACAATCCATCGCGT GATCGCCAGTGGCACATTTACACACTGAACAGTGAAGATC CAAAATCAAATGACCAAAGGATATTCCTTCGTACAGTTGTT AGACAGCCAAGTTTAACCAATGGGTTTTTGTGGGAAGTAT CGACAATGAAGTAGGCCGTTCTCAGGCCACATCGTCATTCA CATCTAACAGCATACTTAGATCATTGATTGCAGCGCTAGAA GAAATAGAGTTACATGCTCATAATAAGGCCATGAGTTCAT GCCATTCCCACATGTATCTGTGCATGTTGAGAGAACAACG GTTGTCTGATCTAATTCCATTTTCAAGGTCAGTCAAAATAT ACTTATGTTCTCAATAAAATACACTGCATTAAATGTGCTCAT ATGATGCTCACTTGGTTTGTGCTTCTCATGGTGTTAGGATG ATGGGTGAAGTTGGTCAAGATGAGGAGGCAGCATGCACA CTTTTGAAGCATATGGTTATGAATATATATGAACATGTTGG TGTCAGGATGCATCGCCTTTCTGTGTGCCAATGGGAAGTG AAGCTATGGTTAGATTGTGATGGGCAAGCCAATGGTGCTT GGAGAGTTGTCATTACCAATATAACTGGGCATACCTGCACT GTTGATGTAAGTTACCTTAGCGATTGCTGTATTGCACTACT ATGTGAACAACAGCATCTACAGTTCTGCATATCATAAAGAA TGCTACCTCTGATGGCCCCATAGATCATCATATATGATTAT ATTTTAGTTAGTAAATAGAACATGGTCATCATTTCCATCATT CGTGTCATGGACATTCTCTCAACTGATGCCTTTAAAGGGTC TATTAAAGACCACTTAAAAATAATTAAGTACTATTTTCTCTT TATTCCAATACTCTTATATGCTCACATTCGTTTGACTTTCAG ATTTACCGAGAAGTAGAAGACTCCAATACGCATCAGATTTT

				CTACCGCTCTGCCACACACACAGCTGGTCCTTTGCATGGCA TTGCATTGCATGAGCCATACAAACGTTTGGCTCCTATTGAC ATGAAACGGTCTGCGGCTAGGAAAAACGAACTACATACT GCTATGATTTCCCATTTGGTGAGTTGGTTGCGTTTGTTAATTT ACTTTTTATCTAACATTAGTTCGCATGATTAACCTGATCAAC TGAGTTTGCTAATAATACTCTGTCCACAGGCATTTGAAACA GCATTGAAGAAATTGTGGAAATCTAGTGCTTCACATCTTGC AGAACTAACCAGCATAATCAGCAGTATGCTGAAGTGACA GAGCTTTTATTTGCTGATTCAACTGGATCATGGGGTACTCC TTTGGTTCCAGTTGAACGTTCTCCATGTGTCAATGATATCG GCATTGTTGCTTGAAGATGAAGCTCTCCACGCCAGAATTT CCAGGCGGCCGGGAGATTATAGTTGTTGCAAATGACGTGA CGTTTAAAGCTGGGTCTTTTGGTCCTAGAGAAGATATATTC TTTCATGCTGCTACCAATCTTGCCTGTGAGAGGAAAATTCC TCTAATCTACTTGTGAGCAACTGCTGGTGCTAGGCTTGGTG TGGCAGAGGAAATAAAGTCGTGCTTCCATGTTGGATGGTC TGATGACCAGAGTCCTGAACGTGGTTTTCACTACATTTACC TCACTGAAGAAGACTATTCACGTCTAAGCTCTTCAGTTATA GCCCATGAACTGAACTAGACAGCGGAGAAACCAGATGG ATTGTTGATACCATTGTTGGGAAAGAGGATGGACTTGGTT GTGAGAATCTGCATGGTAGTGGTGCCATTGCCAGTGCCTT TGCTAAGGCATATAGAGAGACCTTTACTCTGACATTTGTGA CTGGAAACGCAGTTGGAATTGGGGCTTATCTTGCTCGGCT AGGAATGCGGTGTATACAGCGACTTGATCAATCAATTCTTT TAACTGGTTTTTCTGCCCTGAACAACTTCTGGGGCGCGAG GTTTATAGCTCTCAGATGCAACTGGGTGGCCCCAAAATTAT GGGTACAAATGGAGTCGTCCATCTGACAGTGCCAGATGAT CTTGAAGGTGTTTCTGCTATCTTGAAATGGCTCAGCTATGT TCCTGCCTATGTTGGCGGTCCTCTTCCTATTCTGAAGCCTCT TGATCCACCAGATAGAGCTGTAACATATTTCCCAGAGAATT CATGTGATGCCCCGTGCAGCCATCTGTGGGATTCAGGACAC TCAAGGCAAGTGGTTGGGTGGTATGTTTGACAGAGAAAG CTTTGTGGAAACATTAGAAGGATGGGCAAAAACCTGTTATT ACTGGAAGGGCAAAGCTGGGTGGGATTCCAGTTGGCGTC ATAGCAGTGGAACCCAGACAATGATGCAAGTAATCCCTT CTGACCCTGGTCAGCTTGATTCCGCTGAGCGTGTAGTCCCT CAAGCAGGACAGGTGTGGTTCCCAGATTCGGCCTCAAAAA CAGCGCAGGCGTTGCTGGATTTCAACCATGAAGGGCTCCC ATTGTTCATACTTGCTAACTGGAGAGGCTTCTCTGGTGGGC AAAGGGATCTGTTTGAAGGAATCCTTCAGGCTGGCTCTAC AATTGTTGAGAACCTGAGGACCTACAAGCAGCCAGCTTTT GTGTACATCCCAAAGGCTGGAGAGCTGCGTGGAGGTGCA TGGGTTGTGGTGGACAGCAAGATCAATCCTGAGCACATTG AGATGTATGCGGAGAGGACTGCAAAGGGAAATGTCCTTG AGCCAGAAGGGCTGATTGAGATTAAATTTAAGCCAAAAGA AGTGGAAGAGAGTATGATAAGGCTTGACCCTGAGCTGGC CAGCCTTGATTCTAGACTCAAAGAAATGAAGAAAGCAAAT GCTAGCCTGCAGGAAACGGAGGCCATCAACAGGAGCATC
--	--	--	--	--

				AACAAACCGGATAAAGAAGCTGATGCCCATCTATACGCAGG TTGCCACACGGTTTGCTGAATTGCACGACACCTCTTCCAGA ATGACTGCCAAAGGTGTGATCAGTAAGGTGGTTGATTGGG AGGAGTCTCGGAGCTTCTTCTACAGGAGGTTGCGAAGGCG GGTCGCGGAGGATTCCCTTGCCCAGGAAGTTAAAGAAGCC GCTGGTGAGCCGATGCCTCACAGAGCAGCACTGGAGCGT ATCAAGCAGTGGTATCTGGCCTCCAAGGGTTCCGAAGGAG ACGGTGAGAAGTGGAACGATGACGAGGCTTTCTTCGCCTG GAAAGACGATGCCAAGAACTACGAGAACCATCTTCAGGAG TTGAAGGCTGAAAGAGTATCTAGACTGTTCTCGGATCTTGC TGAAAGCTCGGACGTGAAGGCCTTGCCCAACGGTCTTTCG CGCCTCCTTGGCAAAGTAAGTTCTGCTTCTTCTTTCTTA
89	Lolium multiflorum	gDNA Contig	3198	CTAGTTCTTGACTCGAGAAGAAGGTCTGCAGCCAGCAGCC TCGTTCGTAACTCGGCGAGCAAAGGAAACAAGGTAAACA CACGATCCTGGCAAACACTTTTCTTCTTCTCTGAATTGAAG TCGTCGATATCGTGATGTTTCATCTTCGTTACAATAAGCTTG GATGACGGGGAGGGTACTTGCGTTGGCTAGGCAGTCGTTT CGACAAAGCTGGTGGTGGTGTGTCAACTCCAAAAGCCAAC CTGCTTTTCGTTTCTGGCAACAACCCTCCCCTGTTCAAAAAC CTTGTCCTGTCAAATCCCAGCTTGCCGAAACGTCCTACTGC TGGCACCCCTTGACCTCTTGTTCTAGGTTTGATCAAAGTT GATCTTTGTCAAATTTTACTAGATTTTTTTTACATCTATACA ACATATTTGTACAGTACATGTGCATACCGATCGATATAATT TTGTTGGTGCTCGCAGAGTTTGACTAGCATGTAGCAGGAG CAGTGATTTATGCTACTACTACTTATTGTACTCCAGTAGGA TCTACAATAGTACTAGTATCGTAGTCGTCGAATTTAGTCAG TGGTAGCAAACACCAAACAGCGAGCAGAGAACGTCGCCTT CGCCGCCGTGATGCTGCTGGGTTGGGGGTTTAGCTCAGCT ACCTCCCAACTAATTCCATCCTTCCCCAAATCAAATAAAAAA GAAAAGAAAATAAAATAAAACCAGTCCACCCACAGTCCAA ATCCAAGTCCCAAGTCCCAACCCAGCTCCTCTCGCTCACGC CTTCCGGCCTCCCTCTCTACCCCGTCCCGTGTTCCGGCCCCA GCCGAGCGTCGCATGGCGGGGCCCGCGGTGGCACGGCAG TTATAAGCCGCGCGCGGCCAACCATCCAGCGAGAGCACAG CACAGTAGCATAGCTACCTCGCAGCACGCCCTCCCTCCCTG CTAGCTACTCCTCCTCTGCAGACTGCAGCGGGTGGGGGAG AGGAGGCGCGCATTTAAGCCCGGCCTCCTCACCTGTCGGC CTGCCGCCGCGCCCGACGCCGAGGCCTTCCCTTCCCGGATC TTGATCTGCCCCGCTTCCTCCTCCTCGGCGGCATTCCGTCTG AACGGGCGGCGCGCGCCTACGGCAGTACGGTACCTACCCT GCCTTCTCTCCCCCATCTCCCCTGCTCGCCGTGTACGCGCC AGCGTTGGGCACCCCGCACAAATCTACCACACAATTCGCT CTCCCCGGCTCAGTCAGTCGCCGCTGTGCGTAGATCGCTTC CACTTCCTGCTGGGCGCTCCTGGACGTTCCGTCGAGCGGTT TCTGAGATTGGGCTGAGGGGATCATACCGGCTTCCTTTTCT GTCCTCTTTTCTGTTCCGTTGCGTGACAGGAATTGTTGTCTGC TCCCACGCCTTTGCTTGCTCACCTATTCCGTGGACTCCCCTG TGATCACAACATACTCAGCATACTTTTTCTTCACATGCCTAG

				GATAATGAAATCGCAATCTATGTACCATCGCTGTCGCGATT TCTGCTGGCTGTTGACTACTAATTTTACCCCTTCACTTGTGT ACTTATCCTCGTACCGCTGCTTGAGGAATTTTCATATTTGGCT GCTTGAGGAATTTCATAAATCTGGCTAGACACTCTTCATGT TTTTGTTCTTACATCTAGTAGTAGTTCAGAAAGAGGAAGCA CAGACGAGCAACTGACGTATCCGTGCAATTGTTGCTAGT CAGAATGACAGAATCGACGTGCTCATTTATATACCTGATGT AATTGTGCGCTTCTCCTCAAGCCGTAGCTTGAGGCGTTTCA TTTTGTTGTTTTGCGAAAAGTTTTGATGAGGAATTTTCATGGT CTGGCTACGTACTCACCTTGTTTGTGTTGTCATCATTTTAGCAT CAAGTTCAGAAACAATAAATACCCTACTTGTGCAATCATTC GCTAACAGAATCGACAATGCTAACGGTTTTTCTGTCCGTTG CTTGTCAGCGCTGAAGGCTAGAGGGGCGGCGACAATGGT GGCGGAACCGGACAAGACAAATGGGACGCCCAACAGGAT GTCCAGTAACAGGCACCTGTCCTCGCCGTCCGTGGTTCGAC GAGTTCTGCAAGGCGCTCGGGGGCGATTGCCCCATCCACA GCGTCCTGGTCGCCAACAATGGAATGGCCGCCGTCAAGTT CATGCGCAGCATCCGCACCTGGGCCCTCGAGACGTTTGGG ACCGAGAAGGCCATTCTCCTGGTGGCCATGGCAACTCCGG AGGACCTCAGGATAAACGCCGAGCACATAAGGATCGCCG ACCAGTTCTTGGAAGTCCCTGGCGGAACAAACAATAACAA TTATGCGAATGTGCAGCTCATTGTGGAGGTTAGCACGACG ACCATTCTCCCGGTCCTTTTTACTAGCTTGTTGATTAGCGT ATCCATGTTTCTTGCTGGATATTTGACTAGTTACTTAATG TTTCTACCTTCACTGTCACAGATAGCGGAGAGAACTCGGGT TTCTGCGGTTTGGCCTGGCTGGGGCCATGCTTCTGAGAAC CCGGAACCTCCAGACGCGCTCAAGGAGAAGGGAATCATTT TTCTTGGGCCACCATCAGCCGCGATGGCTGCACTTGGTGAT AAGATTGGTTCTTCTTATTGCGCAAGCAGCAGGAGTTCC GACTCTTCCATGGAGTGGATCACATGTATACGTTCTTCTAT TTCTGTATAGTTTTGCTCCTCTTTTTTATCGGCTGCTATGTT GCTTAAAATTAATCCAAATCAACTGTAGGTGAAAGTTCCG CAAGAAACCTGCCACTTGATACCTGAGGACATCTATAAGA AAGCTTGTGTTACAACTACGGAGGAAGCGGTGGCTAGTTG TCAGGTGGTGGGGTATCCTGCAATGATCAAGGCATCATGG GGTGGTGGTGGTAAAGGAATAAGGAAGGTTGGTCTTCTTT TTAGTTCGACTCTACCGCAATTATATGGAAAGTCTCTGTTC ACAAACGATACATGGAAATGTCCACTGTCCATACAAAACG AAGCTAGGTTTCGGCAAATATTGTAGAATAAACGAAAGAT GATTTTGATGTCATCCAAATGCTTTTTATAGGTCCACAATG ATGATGAGGTGAGAGCCTTGTTTAAGCAAGTGCAAGGAG AAGTCCCCGGATCACCTATATTTATCATGAAGGTGGCATCT CAGGTGATAAGTGATAACAGC
90	Lolium multiflorum	gDNA Contig	511	CTAATAACTTATCTGTAAATACAGGACAAAGTGAAATTAGA AGGTTACAGTGACATGAAATACAATCCATCGCGTGATCGC CAGTGGCACATTTACACACTGAACAGTGAAGATCCAAAAT CAAATGACCAAAGGATATTCCTTCGTACAGTTGTTAGACAG CCAAGTTTAACCAATGGGTTTTTGTGTTGGAAGTATCGACAA

				TGAAGTAGGCCGTTCTCAGGCCACATCGTCATTACATCTA ACAGCATACTTAGATCATTGATTGCAGCGCTAGAAGAAAT AGAGTTACATGCTCATAATAAGGCCATGAGTTCACGCCATT CCCACATGTATCTGTGCATGTTGAGAGAACAACGGTTGTCT GATCTAATTCCATTTTCAAGGTCAGTCAAAATATACTTATGT TCTCAATAAAATACACTGCATTAAATGTGCTCATAGATGCT CACTTGGTTTGTGCTTCTCATGGTGTTAGGATGATGGGTGA AGTTGGTCAAGATGAGGAGAT
91	Lolium multiflorum	gDNA Contig	252	TTCTCTGTAGAGCCGACATCTAGAGGTTGAGCTGCTCTGTG ACAAACACGGCAATGTAGCAGCACTGCACAGTCGAGACTG TAGTGTTCAAAGAAGGCCACCAAAAGGTTAGAAATTCTCCT GAAAAGTTATGTTGTCCAATATCAGTTTCCTTGGAGCTAAT ACATGCCGAAACATTGTATACTGAGTACTGGTAGAAGTTCT GTAGCTTTAGGGATTGGCAAAGTGCTAAACTCTGCAGAAG CTATACAAA
92	Sorghum halepense	cDNA Contig	1913	CTCACAGATGTATCTGTGCTTACTGAGAGAACAACAATTGC ATGAACTAATTCCATTTTCAAGGATGACTGATGAAATTGAT CAGGATGAAGGAACTGCATGTACACTTTTGAAGCATATGG TATTGAATTTATATGAACATGTTGGGGTCAGGATGCATCGT CTTTCTGTGTGCCAGTGGGAAGTCAAGCTCTGGTTGGTTTG TGATGGGCAAGCTAGTGGTGCTTGGAGAGTTGTTGTTACC AATGTTACTGGTCACACCTGCACCATTGATATTTACCGAGA AGTGGAAGACCCAGCACACATCAGCTTCTCTACCACTCTG CCACAGCCACGGCTGGTCCTTTGCATGGTGTTGCATTGAAT GAACCATAACAAGCCTTTGGACGCTATTGACCTCAAACGTTA TGCTGCTAGGAAAAATGAAACCACATACTGCTACGATTTCC CCTTGGCATTGAAACAGCGCTGAAGAGATTATGGAAATC AAGTAGCTATGGTGTTAGTGAAGCTAATGAGCGCAATCAA CTCTATGCTGAAGTGAAAGAGCTTATATTTGTTGATTGCGA TGGAGCATGGGGCACTCCATTGGTTTCATTGAAACGCCCTC CAGGCATCAATGATATTGGCATTGTTGCTTGGAAACATGAA GCTGTCCACGCCAGAATTCCCAAGTGGCCGGGAGATTATA GTTGTTGCCAATGATGTGACATTTAAAGCTGGGTCCTTTGG TCCAAGAGAAGATGCATTTTTTGATGCTGTTACCAATCTTG CCTGTGAGAGGAACTTCTCTTATCTATCTGGCAGCAACT GCTGGTGCCAGGCTTGGTGTAGCTGAGGAAATAAAGTCAT GCTTCCATGTCGGCTGGTCTGATGATGAGAGCCCTGAACG TGGTTTTTCAGTACATTTACCTCACTACACAAGATTATTCACG TCTAAGCTCTTCAGTAATAGCTCACGAGCTGCAACTAGAAA ATGGAGAAACCAGATGGGTGGTTGATACCATTGTTGGTAA AGAGGATGGACTTGGTTGTGAGAATCTCCATGGAAGTGGT GCGATTGCCAGTGCATATTCCAAGGCATACAAAGAGACCT TACTCTGACATTTGTGACTGGAAGAGCTGTTGGCATTGG GGCTTATCTGGCTCGTTTAGGTATGAGGTGTATACAACGTC TTGATCAACCAATTATTCTGACTGGGTTTTCTGCACTAAAC AAGCTTCTGGGGCGGGAGGTGTACAGTTCTCATATGCAAT TGGGTGGCCCCAAAATCATGGCTACAAATGGTGTTGTCCA CCAAACTGTGTCAGATGACCTTGAAGGTGTTTCTGCTATCC

				TGAAATGGCTCAGTTATG TTCCTCCATATGTTGGTGGTCCT CTTCCCATTATGAAACCCCTGGACCCACCCGAAAGACCAGT AGCATACTTCCCTGAGAATGCTTGTGATGCTCGTG CAGCCA TCTGTGGCATTCAAGACGGTGAAGGGAAGTGGTTAGGTG GTATGTTTGATAGGGAAACCTTCGTGGAAACATTGGAAGG TTGGGC AAAACAGTTATCACCGGAAGAGCAAAGCTTGGT GGAATACCAGTTGGTGT CATAGCTGTGGAAACCCAGACTG TGATGCAAGTCATCCCAGCTGATCCAGGTCAGCTTGATTCC GCTGAGCGTGTAGTCCCTCAAGCAGGTCAGGTGTGGTTCC CAGATTCTGCAGCCAAAACAGCTCAGGCATTAATGGATTTC AACCGTGAGGAGCTTCCACTGTT CATCCTTGCAA ACTGGA GAGGTTTCTCTGGTGGGCAAAGGGATTTATTTGAAGGAAT CCTTCAGGCTGGTTCAACAATTGTTGAGAATCTGAGGACG TACAAGCAGCCTGCTTTTGTATATATCCCAATGGGTGGAGA GCTACGGG
--	--	--	--	--

We Claim:

1. A method of plant control comprising: treating a plant with a composition comprising a polynucleotide and a transfer agent, wherein said polynucleotide is essentially identical or essentially complementary to an ACCase gene sequence or fragment thereof, or to an RNA transcript of said ACCase gene sequence or fragment thereof, wherein said ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof, whereby said plant growth or development or reproductive ability is reduced or said plant is more sensitive to an ACCase inhibitor herbicide relative to a plant not treated with said composition.
2. The method as claimed in claim 1, wherein said transfer agent is an organosilicone surfactant composition or compound contained therein.
3. The method as claimed in claim 1, wherein said polynucleotide fragment is 18 contiguous, 19 contiguous nucleotides, 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92.
4. The method as claimed in claim 3, wherein said polynucleotide fragment is selected from the group consisting of sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA, or dsDNA/RNA hybrids.
5. The method as claimed in claim 1, wherein said plant is selected from the group consisting of *Amaranthus palmeri*, *Amaranthus rudis*, *Amaranthus chlorostachys*, *Amaranthus thunbergii*, *Amaranthus graecizans*, *Amaranthus hybridus*, *Amaranthus lividus*, *Amaranthus spinosus*, , *Abutilon theophrasti*, *Ambrosia trifida*, *Commelina diffusa*, *Conyza candensis*, *Lolium multiflorum*, *Sorghum halepense*, *Xanthium strumarium*, *Euphorbia heterophylla*, *Kochia scoparia* and *Digitaria sanguinalis*
6. The method as claimed in claim 1, wherein said composition further comprises said ACCase inhibitor herbicide and external application to a plant with said composition.
7. The method as claimed in claim 6, wherein said composition further comprises one or more herbicides different from said ACCase inhibitor herbicide.

8. The method as claimed in claim 3, wherein said composition comprises any combination of two or more of said polynucleotide fragments and external application to a plant with said composition.
9. A composition comprising a polynucleotide and a transfer agent, wherein said polynucleotide is essentially identical or essentially complementary to an ACCase gene sequence, or to an RNA transcript of said ACCase gene sequence, wherein said ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof, and whereby a plant treated with said composition has its growth or development or reproductive ability regulated, suppressed or delayed or said plant is more sensitive to an ACCase inhibitor herbicide as a result of said polynucleotide containing composition relative to a plant not treated with said composition.
10. The composition of claim 9, wherein said transfer agent is an organosilicone composition.
11. The composition of claim 9, wherein said polynucleotide fragment is 18 contiguous, 19 contiguous nucleotides, 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92.
12. The composition of claim 9, wherein said polynucleotide is selected from the group consisting of SEQ ID NO:308-2912.
13. The composition of claim 9, wherein said polynucleotide is selected from the group consisting of SEQ ID NO: 2913-5012.
14. The composition of claim 9, further comprising an ACCase inhibitor herbicide.
15. The composition of claim 14, wherein said ACCase inhibitor molecule is selected from the group consisting of aryloxyphenoxypropionates, cyclohexanediones and phenylpyrazoline.
16. The composition of claim 14, further comprising a non-ACCase inhibitor herbicide.
17. A method of reducing expression of an ACCase gene in a plant comprising: external application to a plant of a composition comprising a polynucleotide and a transfer agent, wherein said polynucleotide is essentially identical or essentially complementary to an ACCase gene sequence or fragment thereof, or to the RNA transcript of said ACCase gene sequence or fragment thereof, wherein said ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof, whereby said expression of said ACCase gene is reduced relative to a plant in which the composition was not applied.

18. The method as claimed in claim 17, wherein said transfer agent is an organosilicone compound.

19. The method as claimed in claim 17, wherein said polynucleotide fragment is 19 contiguous nucleotides, 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92.

20. The method as claimed in 17, wherein said polynucleotide molecule is selected from the group consisting of sense or anti-sense ssDNA or ssRNA, dsRNA, or dsDNA, or dsDNA/RNA hybrids.

21. A microbial expression cassette comprising a polynucleotide fragment of 18 contiguous, 19 contiguous nucleotides, 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92.

22. A method of making a polynucleotide comprising a) transforming the microbial expression cassette of claim 21 into a microbe; b) growing said microbe; c) harvesting a polynucleotide from said microbe, wherein said polynucleotide is 18 contiguous, 19 contiguous nucleotides, 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92.

23. A method of identifying polynucleotides useful in modulating ACCase gene expression when externally treating a plant comprising: a) providing a plurality of polynucleotides that comprise a region essentially identical or essentially complementary to a polynucleotide fragment of 18 contiguous, 19 contiguous nucleotides, 20 contiguous nucleotides or at least 21 contiguous nucleotides in length and at least 85 percent identical to an ACCase gene sequence selected from the group consisting of SEQ ID NO:1-92; b) externally treating said plant with one or more of said polynucleotides and a transfer agent; c) analyzing said plant or extract for modulation of ACCase gene expression, and whereby a plant treated with said composition has its growth or development or reproductive ability regulated, suppressed or delayed or said plant is more sensitive to an ACCase inhibitor herbicide as a result of said polynucleotide containing composition relative to a plant not treated with said composition.

24. The method as claimed in 23, wherein said plant is selected from the group consisting of *Amaranthus palmeri*, *Amaranthus rudis*, *Amaranthus chlorostachys*, *Amaranthus thunbergii*, *Amaranthus graecizans*, *Amaranthus hybridus*, *Amaranthus lividus*, *Amaranthus spinosus*, , *Abutilon theophrasti*, *Ambrosia trifida*, *Commelina diffusa*, *Conyza candensis*, *Lolium multiflorum*, *Sorghum halepense*, *Xanthium strumarium*, *Euphorbia heterophylla*, *Kochia scoparia* and *Digitaria sanguinalis*

25. The method as claimed in 23, wherein said ACCase gene expression is reduced relative to a plant not treated with said polynucleotide fragment and a transfer agent.

26. The method as claimed in 23, wherein said transfer agent is an organosilicone compound.

27. An agricultural chemical composition comprising an admixture of a polynucleotide and an ACCase inhibitor and a co-herbicide, wherein said polynucleotide is essentially identical or essentially complementary to a portion of an ACCase gene sequence, or to a portion of an RNA transcript of said ACCase gene sequence, wherein said ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof, and whereby a plant treated with said composition has its growth or development or reproductive ability regulated, suppressed or delayed or said plant is more sensitive to an ACCase inhibitor herbicide as a result of said polynucleotide containing composition relative to a plant not treated with said composition.

28. The agricultural chemical composition of claim 27, wherein said co-herbicide is selected from the group consisting of amide herbicides, arsenical herbicides, benzothiazole herbicides, benzoylcyclohexanedione herbicides, benzofuranyl alkylsulfonate herbicides, cyclohexene oxime herbicides, cyclopropylisoxazole herbicides, dicarboximide herbicides, dinitroaniline herbicides, dinitrophenol herbicides, diphenyl ether herbicides, dithiocarbamate herbicides, glycine herbicides, halogenated aliphatic herbicides, imidazolinone herbicides, inorganic herbicides, nitrile herbicides, organophosphorus herbicides, oxadiazolone herbicides, oxazole herbicides, phenoxy herbicides, phenylenediamine herbicides, pyrazole herbicides, pyridazine herbicides, pyridazinone herbicides, pyridine herbicides, pyrimidinediamine herbicides, pyrimidinyloxybenzylamine herbicides, quaternary ammonium herbicides, thiocarbamate herbicides, thiocarbonate herbicides, thiourea herbicides, triazine herbicides, triazinone herbicides, triazole herbicides, triazolone herbicides, triazolopyrimidine herbicides, uracil herbicides, and urea herbicides.

29. An agricultural chemical composition comprising an admixture of a polynucleotide and an ACCase inhibitor herbicide and a pesticide, wherein said polynucleotide is essentially identical or essentially complementary to a portion of an ACCase gene sequence, or to a portion of an RNA transcript of said ACCase gene sequence, wherein said ACCase gene sequence is selected from the group consisting of SEQ ID NO:1-92 or a polynucleotide fragment thereof, whereby a field of crop plants in need of weed and pest control are treated with said composition, and whereby a plant treated with said composition has its growth or development or reproductive ability regulated, suppressed or delayed or said plant is more sensitive to an ACCase inhibitor herbicide as a result of said polynucleotide containing composition relative to a plant not treated with said composition.

30. The agricultural chemical composition of claim 29, wherein said pesticide is selected from the group consisting of insecticides, fungicides, nematocides, bactericides, acaricides, growth regulators, chemosterilants, semiochemicals, repellents, attractants, pheromones, feeding stimulants, and biopesticides.

31. A herbicide composition comprising an ACCase inhibitor herbicide and a polynucleotide and a transfer agent, wherein said polynucleotide is selected from the group consisting of SEQ ID NO: 4538 or a complement or polynucleotide fragment thereof, and whereby a plant treated with said composition has its growth or development or reproductive ability regulated, suppressed or delayed or said plant is more sensitive to an ACCase inhibitor herbicide as a result of said polynucleotide containing composition relative to a plant not treated with said composition.

1/1

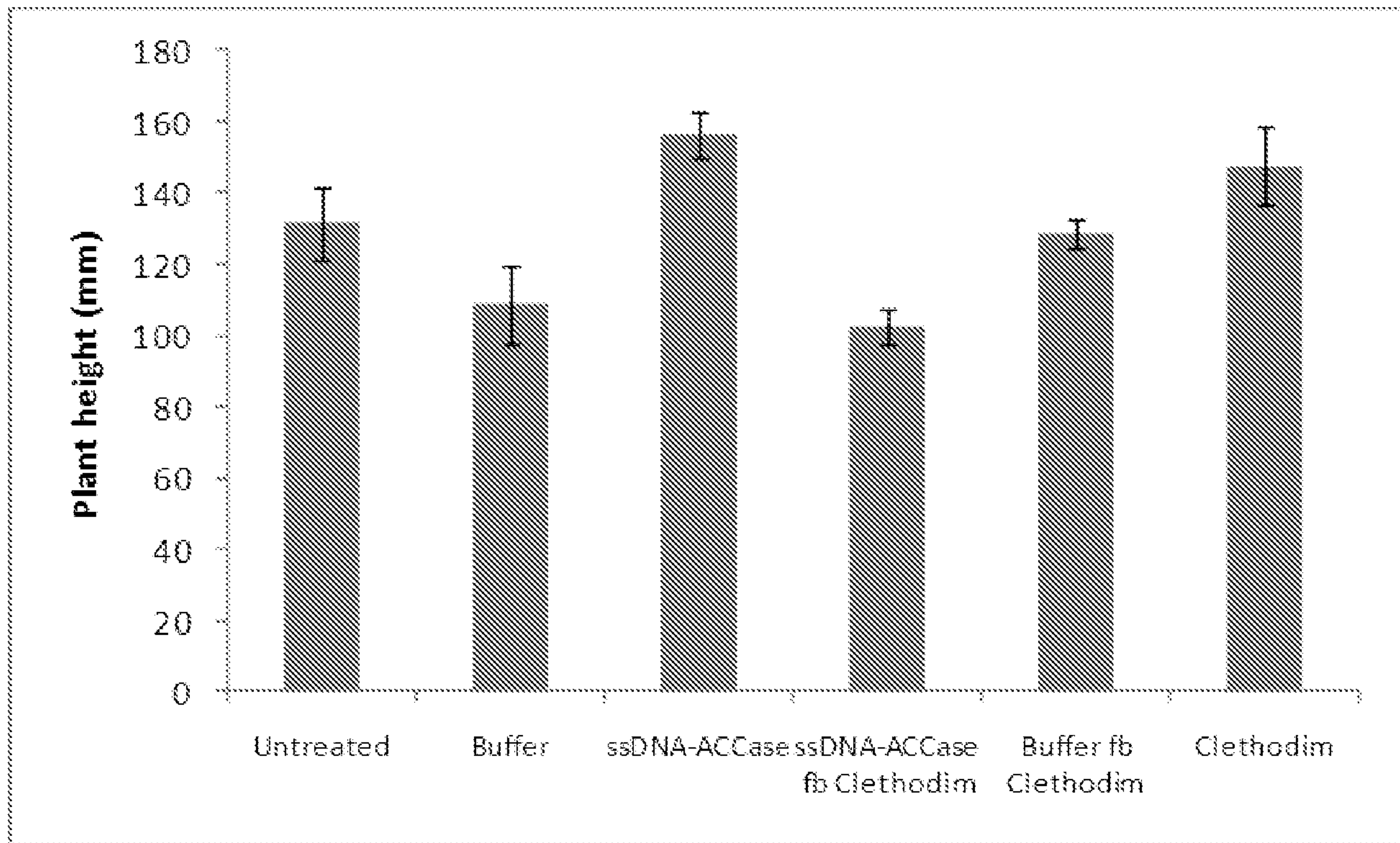


Figure 1