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[Continued on next page]

(54) Title: SOYBEAN EVENT 3560.4.3.5 AND COMPOSITIONS AND METHODS FOR THE IDENTIFICATION AND/OR DETECTION THEREOF

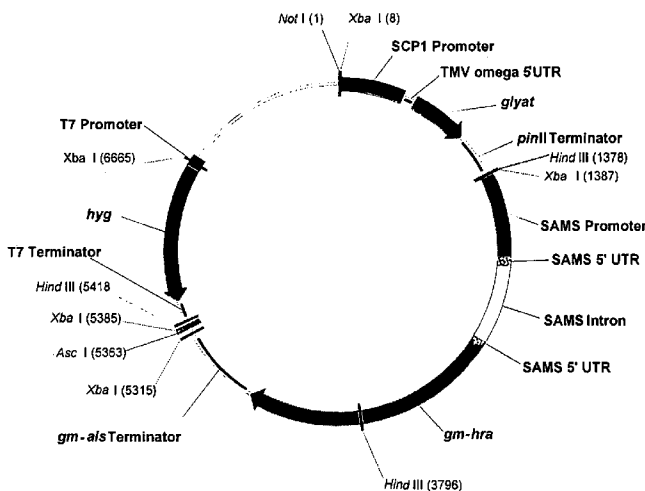


FIGURE 1

(57) Abstract: Compositions and methods related to transgenic glyphosate/ALS inhibitor-tolerant soybean plants are provided. Specifically, soybean plants having a 3560.4.3.5 event which imparts tolerance to glyphosate and at least one ALS-inhibiting herbicide are provided. The soybean plant harboring the 3560.4.3.5 event at the recited chromosomal location comprises genomic/transgene junctions having at least the polynucleotide sequence of SEQ ID NO: 10 and/or 11. The characterization of the genomic insertion site of the 3560.4.3.5 event provides for an enhanced breeding efficiency and enables the use of molecular markers to track the transgene insert in the breeding populations and progeny thereof. Various methods and compositions for the identification, detection, and use of the soybean 3560.4.3.5 events are provided.

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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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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24 July 2008

## INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

INV. C12N15/82 A01H5/00 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C12N C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search, WPI Data, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/012515 A (PIONEER HI BRED INT [US]; VERDIA INC [US]; CASTLE LINDA A [US]; SIEHL) 10 February 2005 (2005-02-10)  page 13, line 4 - page 14, line 2 page 167, line 5 - page 170, line 7 examples 17,23	1,2, 10-16, 29,30, 39-44
X	US 2005/246798 A1 (CASTLE LINDA A [US] ET AL) 3 November 2005 (2005-11-03)  examples 17,22,23 page 72 reference to Sequence Listing  ----- -/--	1,2, 10-16, 29,30, 39-44

 Further documents are listed in the continuation of Box C. See patent family annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/072024

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 98/39419 A (ASGROW SEED CO [US]) 11 September 1998 (1998-09-11)</p> <p>page 15, line 18 - line 19 page 16, line 17 - line 19 page 19, line 9 - line 16</p>	<p>1,2, 10-16, 29,30, 39-44</p>
A	<p>WO 2006/039376 A (PIONEER HI BRED INT [US]; DOW AGROSCIENCES LLC [US]; DU PONT [US]; BIN) 13 April 2006 (2006-04-13)</p> <p>page 3, line 31 - page 8, line 21; claims 1-49; examples 4,5</p>	<p>1,2, 10-16, 29,30, 39-44</p>
A	<p>WINDELS P ET AL: "DEVELOPMENT OF A LINE SPECIFIC GMO DETECTION METHOD A CASE STUDY" MEDEDELINGEN VAN DE FACULTEIT LANDBOUWWETENSCHAPPEN UNIVERSITEIT GENT, GENT, BE, vol. 64, no. 5B, 22 September 1999 (1999-09-22), pages 459-462, XP001032975 ISSN: 0368-9697 the whole document</p>	<p>1,2, 10-16, 29,30, 39-44</p>
A	<p>TERRY C F ET AL: "EVENT-SPECIFIC DETECTION AND ROUNDUP READY SOYA USING TWO DIFFERENT REAL TIME PCR DETECTION CHEMISTRIES" EUROPEAN FOOD RESEARCH AND TECHNOLOGY, SPRINGER, HEIDELBERG, DE, vol. 213, no. 6, November 2001 (2001-11), pages 425-431, XP001097295 ISSN: 1431-4630 whole document particularly table 1 "TMPRR Probe "</p>	<p>1,2, 10-16, 29,30, 39-44</p>
A	<p>WO 03/052073 A (SYNGENTA PARTICIPATIONS AG [CH]; STEINER HENRY-YORK [US]; DAWSON JOHN) 26 June 2003 (2003-06-26)</p> <p>claims 1-21</p>	<p>1,2, 10-16, 29,30, 39-44</p>
A	<p>WINDELS P ET AL: "CHARACTERISATION OF THE ROUNDUP READY SOYBEAN INSERT" EUROPEAN FOOD RESEARCH AND TECHNOLOGY, SPRINGER VERLAG, HEIDELBERG, DE, vol. 213, no. 2, August 2001 (2001-08), pages 107-112, XP008072737 ISSN: 1438-2377 the whole document</p>	<p>1,2, 10-16, 29,30, 39-44</p>

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/072024

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	ROOD, T.A., ET AL.: "Petition for the determination of nonregulated status for herbicide tolerant 356043 soybean" APHIS PETITION 06-271-01P, [Online] 27 September 2006 (2006-09-27), XP002470809 Retrieved from the Internet: URL: <a href="http://www.aphis.usda.gov/brs/aphisdocs/06_27101p.pdf">http://www.aphis.usda.gov/brs/aphisdocs/06_27101p.pdf</a> the whole document	1,2, 10-16, 29,30, 39-44
P,A	WO 2007/024782 A (PIONEER HI BRED INT [US]; DU PONT [US]; MCCUTCHEN BILLY FRED [US]; CAS) 1 March 2007 (2007-03-01)  page 115 - page 118 page 126 - page 136 page 151 - page 157	1,2, 10-16, 29,30, 39-44
A	US 2003/226166 A1 (FALCO SAVERIO CARL [US] ET AL) 4 December 2003 (2003-12-04) example 9; sequence 22 23	
A	CASTLE LINDA A ET AL: "Discovery and directed evolution of a glyphosate tolerance gene" SCIENCE (WASHINGTON D C), vol. 304, no. 5674, 21 May 2004 (2004-05-21), pages 1151-1154, XP002470810 ISSN: 0036-8075 the whole document	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2007/072024

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:  
1,2,10-12,29,30,29,43 all partially (claimed invention 1); 1,2,10-12, 29,30  
39,43 all partially (claimed invention 2); 13-16,40-42  
44 all partially (claimed invention 12); 13-16,40-42  
44 all partially (claimed invention 13)
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: Claims 1,2,10-12, 29, 30, 39, 43 all partially

Polynucleotide comprising SEQ ID NO:10; detection kit and methods based thereon  
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Invention 2: Claims 1, 2, 10-12, 29, 30, 39, 43 all partially

Polynucleotide comprising SEQ ID NO:11; detection kit and methods based thereon  
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Invention 3: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:16 and 17 as first and second primer, methods based thereon.  
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Invention 4: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:7 and 8 as first and second primer, methods based thereon.  
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Invention 5: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:23 and 20 as first and second primer, methods based thereon.  
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Invention 6: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:23 and 19 as first and second primer, methods based thereon.  
---

Invention 7: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:18 and 22 as first and second primer, methods based thereon.  
---

Invention 8: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:21 and 22 as first and second primer, methods based thereon.  
---

Invention 9: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:7 and 9 as first and second primer, methods based thereon.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

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Invention 10: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:8 and 9 as first and second primer, methods based thereon.  
---

Invention 11: Claims 3-9, 17-28, 32-38 all partially

Kit comprising sequences comprising SEQ ID NO:44 and 45 as first and second primer, methods based thereon.  
---

Invention 12: Claims 13-16, 40-42, 44 all partially

Soybean plants comprising SEQ ID NO:10; methods based thereon  
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Invention 13: Claims 13-16, 40-42, 44 all partially

Soybean plants comprising SEQ ID NO:11; methods based thereon  
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Inventions 14 to 40: Claim 31 all partially

Polynucleotide comprising a sequence defined by each individual SEQ ID NO, wherein reference to each individual SEQ ID NO represents a separate unlinked claimed invention; claimed invention 14 relating to SEQ ID NO:7 followed by consecutively numbered claimed inventions for each SEQ ID NO through to claimed invention 40 relating to SEQ ID NO:55  
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/072024

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