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Bacon

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- (54) **GRAPEVINE PLANT NAMED**
'SUGRAFIFTYTWO'
- (50) Latin Name: *Vitis vinifera*
Varietal Denomination: **Sugrafitftwo**
- (71) Applicant: **Sun World International, LLC,**
Bakersfield, CA (US)
- (72) Inventor: **Terry A. Bacon,** Bakersfield, CA (US)
- (73) Assignee: **Sun World International, LLC,**
Bakersfield, CA (US)
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Primary Examiner — Keith O. Robinson
(74) *Attorney, Agent, or Firm* — Knobbe, Martens, Olson & Bear, LLP

(57) **ABSTRACT**

A new and distinct variety of grapevine 'Sugrafitftwo' is characterized by an early harvest date, the production of a large-sized, green, broad elliptic berry and a high brix:acid ratio. The berries of 'Sugrafitftwo' are very firm.

1 Drawing Sheet

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Latin name of the genus and species claimed: *Vitis vinifera*.
Variety denomination: 'SUGRAFIFTYTWO'.

BACKGROUND AND SUMMARY OF THE INVENTION

This application relates to the discovery and asexual propagation of a new and distinct variety of grapevine, 'Sugrafitftwo', as herein described and illustrated. The new variety was first selected as breeder number 'GR508W' by Terry A. Bacon in Wasco, Kern County, Calif. in July 2015. The variety was originated by controlled hybridization.

The new variety 'Sugrafitftwo' is characterized by an early harvest date, the production of a large-sized, green, broad, elliptic berry with a high brix:acid ratio. The berries of 'Sugrafitftwo' are very firm.

The seed parent is the varietal selection '04006-199-045' (unpatented) and the pollen parent is the varietal selection "GR176W" (unpatented). The parent varieties were first crossed in April 2012. The date of first sowing was March 2013, and the date of first flowering was April 2015.

The new variety 'Sugrafitftwo' was first asexually propagated in December 2015 in Wasco, Kern County, Calif., by Terry A. Bacon using hardwood cuttings.

The new variety 'Sugrafitftwo' is similar to its seed parent '04006-199-045' (unpatented) in that the berries ripen at a similar time and have similar color. The new variety 'Sugrafitftwo' differs from its seed parent '04006-199-045' in that the new variety has a larger berry size at about 7 g compared to about 6 g for '04006-199-045'. The new variety 'Sugrafitftwo' also has a low-acidic flavor at 0.385% titratable acidity and higher brix:acid ratio at 44.2, compared to 0.78% titratable acidity and a 21.8 brix:acid ratio for '04006-199-045'.

The new variety 'Sugrafitftwo' is similar to its pollen parent 'GR176W' in that they have similar berry color and

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shape. The new variety 'Sugrafitftwo' differs from its pollen parent 'GR176W' in that the new variety ripening starts about 31 days earlier, at about June 30 compared to July 31 for 'GR176W'.

5 The new variety 'Sugrafitftwo' has a similar ripening time and berry color as 'Pearlete' (unpatented), but the new variety 'Sugrafitftwo' has a broad, elliptical berry shape compared to a round shape for the berries of 'Perlette'. The new variety 'Sugrafitftwo' has a similar berry shape and color as 'Sugraone' (described in U.S. Plant Pat. No. 3,106), but ripening of the berries of the new variety 'Sugrafitftwo' starts about 14 days earlier than for 'Sugraone'. Ripening begins about June 30 for the new variety 'Sugrafitftwo' compared to July 14 for 'Sugraone'.

10 The new 'Sugrafitftwo' variety has been shown to maintain its distinguishing characteristics through successive asexual propagations by, for example, cuttings and grafting.

15 Variations of the usual magnitude from the characteristics described herein may occur with changes in any of a variety of factors such as growing conditions, irrigation, fertilization, pruning, management and climatic variation.

BRIEF DESCRIPTION OF THE DRAWING

20 The accompanying color photographic illustration taken from a 3 year old plant shows typical specimens of the foliage and fruit of the present new grape variety Sugrafitftwo'. The illustration shows the upper and lower surfaces of the leaves and exterior and sectional views of the fruit.

25 The photographic illustration was taken shortly after the fruit was picked and the colors are as nearly true as is reasonably possible in a color representation of this type.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

30 Throughout this specification, color names beginning with a small letter signify that the name of that color, as used

in common speech, is aptly descriptive. Color names beginning with a capital letter designate values based upon The R.H.S. Colour Chart, published by The Royal Horticultural Society, London, England, 1986.

Many of the descriptive values in this specification are based on and conform to those set forth by the International Board for Plant Genetic Resources Institute Grape Descriptors (*Vitis* spp.) of 1983 and/or 1997, which was developed in collaboration with the Office International de la Vigne et du Vin (OIV) and the International Union for the Protection of New Varieties of Plants (UPOV).

The descriptive matter which follows pertains to three-year-old 'Sugrafiftytwo' plants grown in the vicinity of Wasco, Kern County, Calif. during 2017, and is believed to apply to plants of the variety grown under similar conditions of soil and climate elsewhere.

VINE

General: (Measurements taken on a three-year-old plant).

Vine size.—Large. Height: Approximately 2.0 m.

Width: Approximately 2.5 m.

Vigor.—Vigorous.

Density of foliage.—Dense.

Productivity.—Very productive.

Crop load.—Approximately 27 kg per vine after thinning.

Own root.—Yes.

Training method.—Typically spur pruned leaving 2 bud spurs.

Resistance.—Neither resistance nor susceptibility to diseases or pests has been observed in this variety.

Trunk:

Shape.—Stocky.

Diameter.—Approximately 7.5 cm (at 30 cm above the soil line).

Straps.—Short.

Surface texture.—Medium shaggy.

Inner and outer bark color.—Inner bark about Medium Greyed-Orange 166C and Dark Greyed-Green 197A in outer bark.

SHOOTS

Young shoot:

Form of tip.—Half open.

Intensity of anthocyanin coloration of tip.—Absent or very weak.

Density of prostrate hairs on tip.—Absent or very sparse.

Density of erect hairs on tip.—Absent or very sparse.

Color.—About Medium Green 138B.

Woody shoot (observations made in the middle third of shoot):

Attitude before tying.—Semi-drooping.

Growth of axillary shoots.—Medium strong, mainly 17 to 21 cm.

Internode length.—Medium, approximately 120 mm.

Width at node.—Approximately 13 mm.

Cross section.—Circular.

Surface texture.—Striated.

Main color.—About Medium Greyed-Orange 177C.

Color of dorsal side of internode.—About Medium Greyed-Orange 177C.

Color of ventral side of internode.—About Medium Greyed-Orange 177C.

Color of dorsal side of node.—About Medium Yellow-Green 146C with Light Greyed-Orange 166D.

Color of ventral side of node.—About Medium Yellow-Green 146C with Light Greyed-Orange 166D.

Density of erect hairs on nodes.—Absent or Very Sparse.

Density of erect hairs on internodes.—Absent or Very Sparse.

Density of prostrate hairs on internodes.—Absent or Very Sparse.

Density of prostrate hairs on nodes.—Absent or Very Sparse.

Tendrils:

Distribution on the shoot at full flowering.—Discontinuous.

Thickness.—Approximately 4 mm.

Color.—About Light Yellow-Green 148D in mid-summer.

Form.—Bifurcated.

Number of consecutive tendrils.—Up to 2.

Length of tendril.—Medium, approximately 16.5 cm.

LEAVES

Young leaves:

Color of upper surface of first 4 distal unfolded leaves.—About Medium Green 138B.

Average intensity of anthocyanin coloration of six distal leaves prior to flowering.—Absent.

Density of prostrate hairs between veins at lower surface of 4th distal unfolded leaf.—Absent or very sparse.

Density of erect hairs between veins at lower surface of 4th distal unfolded leaf.—Absent or very sparse.

Density of prostrate hairs on veins at lower surface of 4th distal unfolded leaf.—Absent or very sparse.

Density of erect hairs on veins at lower surface of 4th distal unfolded leaf.—Absent or very sparse.

Mature leaves (observations made in the middle third of shoot):

Average length.—Large, approximately 10 cm.

Average width.—Large, approximately 12 cm.

Shape of blade.—Pentagonal.

Number of lobes.—Approximately 5.

Mature leaf profile.—Undulate.

Blistering surface of blade upper surface.—Absent or very weak.

Leaf blade tip.—In the plane of the leaf.

Undulation of margin.—Slight.

Thickness.—Average — typical of *Vitis vinifera* species.

Overall shape of teeth.—Mixture of both sides straight and both sides convex.

Length of teeth.—Medium, ranging from about 4 mm to 8 mm.

Ratio length/width of teeth.—Very small, nearly 1:1.

General shape of petiole sinus lobes.—Wide open.

Tooth at petiole sinus.—Absent.

Petiole sinus limited by veins.—Absent.

Shape of upper lateral sinus lobes.—Open.

Depth of upper lateral sinuses.—Shallow, approximately 10 mm to 15 mm.

Density of prostrate hairs between veins on lower surface of blade.—Absent to very sparse.

Density of erect hairs between veins on lower surface of blade.—Absent to very sparse.
Density of prostrate hairs on main veins on lower surface of blade.—Absent to very sparse.
Density of erect hairs on main veins on lower surface of blade.—Absent to very sparse.
Density of prostrate hairs on main veins on upper surface of blade.—Absent to very sparse.
Autumn coloration of leaves.—Usually about Medium Green 138A with highlights of about Medium Yellow 5A.
 Upper leaf surface:
Color.—About Dark Yellow-Green 147A.
Surface texture.—Smooth.
Surface appearance.—Dull.
Anthocyanin coloration of main veins.—Absent or very sparse.
 Lower leaf surface:
Color.—About Medium Green 138A.
Surface texture.—Smooth.
Surface appearance.—Dull.
Anthocyanin coloration of main veins.—Absent or very sparse. Some leaves have about Medium Red 47A at the point of attachment to petiole for 8 mm to 10 mm.
 Petiole:
Length of petiole.—Approximately 6 cm.
Diameter.—Approximately 3 mm.
Length of petiole compared to middle vein.—Slightly shorter, 6 cm for the petiole compared to 9 cm for middle vein.
Density of prostrate hairs on petiole.—Absent.
Density of erect hairs on petiole.—Absent.
Color.—About Medium Green 138B, becoming Medium Red 47A after 2 cm to 4 cm.
 Buds:
Shape.—Conical.
Size.—Medium, approximately 3 mm wide×4 mm long.
Position.—Slightly held out.
Bud fruitfulness.—Basal, mostly fruitful 3rd to 5th bud position.
Time of bud burst.—Medium, approximately March 12th for the southern San Joaquin Valley region.

FLOWERS

General:
Flower type.—Fully developed stamen and fully developed gynoecium.
Position of first flowering node.—Usually 4th to 5th node of current season growth.
Number of inflorescences per shoot.—Approximately 1 to 2 with an average of about 1.5.
Time of full bloom.—Medium for area of Wasco, Calif. Approximately April 22th.

FRUIT

General:
Ripening period.—Very early, beginning about June 30th with main ripe about July 5th in the area of Wasco, Calif.
Use.—Fresh market.
Storage quality.—Excellent.
 Cluster:
Form.—Conical, shouldered.
Cluster size (peduncle excluded).—Large, approximately 600 g to 700 g.
Cluster length (peduncle excluded).—Approximately 19 cm.
Cluster width.—Approximately 14 cm.
Cluster weight.—Approximately 675 g.
Cluster density.—Medium, loose and full.
Number of berries.—Approximately 150 before trimming.
 Peduncle:
Length.—Medium, approximately 2.2 cm.
Diameter.—Approximately 6 mm.
Lignification of peduncle.—Weak.
Color.—About Medium Green 138B.
 Berry:
Size.—Large for early season, approximately 7.5 g.
Dimensions.—Longitudinal axis: Approximately 27 mm. Horizontal axis: Approximately 21 mm.
Uniformity of size.—Uniform.
Shape.—Broad elliptic.
Cross section.—Circular.
Skin color (without bloom).—About Medium Yellow-Green 144B to about Medium Yellow-Green 146C.
Flesh color.—About Medium Yellow-Green 144B.
Anthocyanin color of flesh.—Absent or very weak.
Bloom (cuticular wax).—Medium, can rub off easily.
Pedical length.—Approximately 7 mm.
Pedical thickness.—Medium, approximately 1.8 mm.
Berry separation from pedicel.—Moderately easy.
Seed traces.—Berries contain 1 to 3 rudimentary soft seed traces per berry. Seed traces are about Medium Green 141C.
Berry firmness.—Very firm.
Flesh juiciness.—Juicy.
Flesh texture.—Crisp.
Particular flavor.—Slightly fruity aroma.
Refractometer test.—About 17-18 Brix.
Juice pH.—About 3.6.
Titrateable acidity.—About 0.385%.
Brix:acid ratio.—Approximately 44.2.

Skin:
Skin thickness.—Medium, about 175 µm.
Skin texture.—Smooth.
Skin reticulation.—Absent.
Skin tenacity.—Tenacious to flesh.
Skin tendency to crack.—Rare.
Skin sensitivity to sunburn.—None.
 What is claimed is:
 1. A new and distinct variety of grapevine as herein illustrated and described.

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