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Sills et al.

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(54) **BLACKBERRY PLANT NAMED 'DRISBLACKTHIRTY'**

(50) Latin Name: ***Rubus* L. subgenus *Rubus***
Varietal Denomination: **DrisBlackThirty**

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A01H 6/74 (2018.01)

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USPC **Plt./203**

(58) **Field of Classification Search**
USPC Plt./156, 203
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of blackberry plant named 'DrisBlackThirty', particularly selected for its plant health, berry size, flavor, and firmness, and spineless canes, is disclosed.

4 Drawing Sheets

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Latin name:

Botanical classification: *Rubus* L. subgenus *Rubus*.

Varietal denomination: The varietal denomination of the claimed variety of blackberry plant is 'DrisBlackThirty'.

BACKGROUND OF THE INVENTION

Blackberry is the common name for a multitude of plant species bearing dark purple to black aggregate fruit in the genus *Rubus* of the family Rosaceae. Most blackberries are within the subgenus *Rubus*.

Native chiefly to the northern temperate regions, blackberries are now being cultivated as a valuable fruit crop in many areas of the world, particularly in Europe, North America and Central America. Recognized for their high contents of antioxidants, dietary fiber, vitamin C, and vitamin K. Blackberry fruit are typically consumed as fresh fruit, individually quick frozen fruit, or in prepared foods, such as purées, juices, jellies, jams, grocery items, baked goods, and snack foods.

Globally, Mexico is the leading producer of blackberries, with nearly the entire crop being produced for export into the off-season fresh markets in North America and Europe. The Mexican market is almost entirely from the cultivar 'Tupi' (also spelled as 'Tupy'). In the United States, Oregon is the leading commercial blackberry producer, followed by the state of California.

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Blackberries are perennial plants that typically bear biennial sterns (known as "canes") from a perennial root system. The two cane types are primocanes, or first-year canes, which are usually vegetative, and floricanes, which are the same canes and produce fruit in the next growing season. In its first year, a new cane, the primocane, grows vigorously to its full length of three to six meters in a growth habit of erecting, arching, or trailing along the ground and bearing large compound leaves with 3, 5, or 7 leaflets; it does not produce any flowers. In its second year, the cane becomes a floricane and stops elongating, but the lateral buds break to produce flowering laterals that bear fruit.

Recently, primocane-fruiting blackberry varieties have been developed that are capable of flowering and fruiting on first-year canes. Primocane-fruiting blackberry varieties have several advantages, including potential of two crops on the same plant in the same year, reduction in pruning costs by mowing of canes, avoidance of winter injury, and production of fruit in an extended geographic area. However, primocane-fruiting blackberry varieties are also subject to a number of challenges, such as poor heat tolerance, lesser fruit quality, and low yield.

Blackberry is an important and valuable commercial fruit crop. Accordingly, there is a need for new varieties of blackberry plant. In particular, there is a need for improved varieties of blackberry plant that are stable, high yielding, and agronomically sound.

SUMMARY OF THE INVENTION

In order to meet these needs, the present invention is directed to an improved variety of blackberry plant. In particular, the invention relates to a new and distinct variety of blackberry plant (*Rubus* L. subgenus *Rubus*), which has been denominated as 'DrisBlackThirty'.

Blackberry plant variety 'DrisBlackThirty' was selected in Santa Cruz County, Calif. in September of 2016 and originated from a controlled cross between the proprietary female parent blackberry plant 'BW337 2 Bulk' (unpatented) and the proprietary male parent blackberry plant 'BS880.1' (unpatented). The original seedling of the new variety was first asexually propagated via root cuttings in Santa Cruz County, Calif. in October of 2016.

'DrisBlackThirty' was subsequently asexually propagated via root cuttings, and underwent testing in Santa Cruz, Calif. from 2017 to 2021 (four years). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via root cuttings and tissue culture.

'DrisBlackThirty' was selected for its plant health, berry size, flavor, and firmness, and spineless canes.

BRIEF DESCRIPTION OF THE DRAWINGS

This new blackberry plant is illustrated by the accompanying photographs. The colors shown are as true as can be reasonably obtained by conventional photographic procedures. The photographs are of plants that are two to five years old.

FIG. **1** illustrates leaves of variety 'DrisBlackThirty'.

FIG. **2** illustrates a section of a cane of variety 'DrisBlackThirty'.

FIG. **3** illustrates flowers of variety 'DrisBlackThirty' at various stages of development.

FIG. **4** illustrates fruits of variety 'DrisBlackThirty' at various stages of development.

DETAILED BOTANICAL DESCRIPTION

The following descriptions set forth the distinctive characteristics of 'DrisBlackThirty'. The data that define these characteristics are based on observations taken in Santa Cruz County, Calif. from 2017 to 2021. This description is in accordance with UPOV terminology. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural conditions. 'DrisBlackThirty' has not been observed under all possible environmental conditions. The botanical description of 'DrisBlackThirty' was taken from plants that were two to five years old. The indicated values represent averages calculated from measurements of several plants. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (2015 edition). Descriptive terminology follows the *Plant Identification Terminology, An Illustrated Glossary,* 2^{nd} edition by James G. Harris and Melinda Woolf Harris, unless where otherwise defined.

Classification:

Family.—Rosaceae.

Botanical.—*Rubus* L. subgenus *Rubus*.

Common name.—Blackberry.

Variety name.—'DrisBlackThirty'.

Parentage:

Female parent.—'BW337 2 Bulk' (unpatented).

Male parent.—'BS880.1' (unpatented).

Plant:

Propagation.—Root cuttings and tissue culture.

Growth habit.—Upright to semi-upright.

Height.—119 cm.

Width.—92 cm.

Height/width ratio.—1.3.

Vigor.—Medium.

Self-fruitfulness.—Self-fruitful.

Canes:

Internodal distance.—6 cm.

New cane.—Strength: Medium. Glaucosity (waxy bloom): Strong.

Dormant cane.—Anthocyanin coloration: Weak. Color: RHS 146A (Moderate olive green). Predominant distribution of branches: Over whole length. Cross-section: Angular to grooved. Spine: Presence of spines: Absent.

Fruiting lateral.—Fruiting lateral length (4^{th} lateral from tip): 33 cm. Number of fruits per fruiting lateral: 16.

Young shoots.—Length: 208 cm. Diameter: 3 cm. Anthocyanin coloration (during rapid growth): Medium. Color: RHS 148A (Moderate yellow green). Number of glandular hairs: Absent or few. Time of young shoot emergence: Mid-April.

Leaves:

Time of leaf bud burst.—Mid-January.

Leaf.—Predominant number of leaflets: 5. Type: Palmate. Relative position of lateral leaflets: Overlapping. Arrangement: Alternate, facing up. Venation: Dichotomous. Vein color: RHS 152D (Dark greenish yellow). Color of upper side: RHS 147A (Moderate olive green). Color of lower side: RHS 138B (Mod-

erate yellow green). Profile in cross-section: Concave (margins rolled inwards). Glossiness of upper side: Medium.

Leaflet.—Type of incision of margin: Bi-serrate. Depth of margin incisions: Medium.

Terminal leaflet.—Length: 13 cm. Width: 10 cm. Length/width ratio: 1.3. Shape: Ovate. Apex: Acuminate. Base: Obtuse. Margin: Doubly serrate. Lobing: Absent. Shape in cross-section: V-shaped. Undulation of margin: Absent or very weak. Blistering between veins: Medium.

Lateral leaflet (*single leaflet in basal pair*).—Length: 10 cm. Width: 6 cm. Length/width ratio: 1.67. Shape: Ovate. Apex: Acuminate. Base: Obtuse. Margin: Doubly serrate.

Rachis (*length between terminal leaflet and adjacent lateral leaflets*).—5 cm.

Petiole.—Length: 9 cm. Diameter: 2 mm. Color of upper surface: RHS 138B (Moderate yellow green). Color of lower surface: RHS 144A (Strong yellow green).

Stipule.—Length: 2 cm. Width: 1 mm. Color: RHS 147A (Moderate olive green). Orientation: Clasping.

Inflorescence:

Flower bud.—Length: 6 mm. Width: 10 mm. Color: RHS 191A (Greyish yellow green).

Flower.—Diameter: 37 mm. Number of flowers observed at 3rd node from tip of lateral: 3. Fragrance: Faint.

Petal.—Length: 17 mm. Width: 13 mm. Length/width ratio: 1.31. Number of petals per flower: 5. Color: RHS 155B (Yellowish white). Shape: Oval. Apex: Complex. Base: Cuneate. Margin: Erose.

Sepal.—Length: 10 mm. Width: 7 mm. Color: RHS 138D (Light green).

Flower pedicel.—Length: 34 mm. Diameter: 2 mm. Color: RHS 138C (Moderate yellow green).

Inflorescence peduncle.—Length: 32 mm. Diameter: 2 mm. Color: RHS 138C (Moderate yellow green).

Reproductive organs.—Style: Length: 2 mm. Color: RHS 140A (Vivid yellowish green). Ovary: Color: RHS 143B (Strong yellow green). Stamen: Length: 4 mm. Color: RHS 145A (Strong yellow green). Pollen: Amount: Medium.

Time of beginning of flowering on previous year's cane (*floricane*).—Early/Mid-April.

Time of beginning of flowering on current year's cane (*primocane*).—Mid-August.

Fruit:

Length of mature fruit.—25 mm.

Diameter of mature fruit.—19 mm.

Ratio of length to width.—1.32.

Floricane fruit weight.—11 g/fruit.

Primocane fruit weight.—11 g/fruit.

Sweetness/soluble solids (*in ° Brix*).—14.

Titratable acidity (*% as citric acid*).—1.76%.

Glossiness.—Medium.

Firmness.—Soft.

Fruit shape in longitudinal section.—Elliptic.

Fruit color.—RHS 203A (Black).

Drupe.—Length of single drupe: 5 mm. Diameter of single drupe: 5 mm. Average number of drupes per fruit: 100.

Seed.—Diameter: 2 mm. Weight: 0.00262 g/seed. Color: RHS 167D (Moderate orange yellow).

Fruiting on current year's cane.—Present.

Harvest interval on previous year's cane (*floricane*).—Month of June.

Harvest interval on current year's cane (*primocane*).—Late August to September.

Yield.—12,500 pounds (lbs) to 20,500 pounds (lbs) of fruit per acre per season from 24-36 month-old plants when grown in Watsonville, Calif.

Resistance to pests and diseases:

Redberry mite (*acalitus essigi*).—Moderately resistant.

Fusarium wilt (*fusarium oxysporum*).—Resistant.

COMPARISON TO PARENTAL AND REFERENCE BLACKBERRY VARIETIES

'DrisBlackThirty' differs from the proprietary female parent 'BW337 2 Bulk' (unpatented) in that 'DrisBlackThirty' has larger fruit size and higher yield potential compared to 'BW337 2 Bulk'. Further, 'DrisBlackThirty' is a spineless plant, whereas 'BW337 2 Bulk' has spines.

'DrisBlackThirty' differs from the proprietary male parent 'BS880.1' (unpatented) in that 'DrisBlackThirty' has higher vigor when compared to 'BS880.1'.

'DrisBlackThirty' differs from the reference variety 'DrisBlackThirteen' (U.S. Plant Pat. No. 27,681) in that 'DrisBlackThirty' has weak anthocyanin coloration on dormant cane, medium anthocyanin coloration on young shoot (during rapid growth), the fruit shape in longitudinal section is elliptic, and the glaucosity (waxy bloom) on new canes is strong, whereas 'DrisBlackThirteen' has medium anthocyanin coloration on dormant cane, weak anthocyanin coloration on young shoot (during rapid growth), the fruit shape in longitudinal section is medium ovate, and the glaucosity (waxy bloom) on new canes is medium.

'DrisBlackThirty' differs from the reference variety 'DrisBlackTwelve' (U.S. Plant Pat. No. 27,746) in that 'DrisBlackThirty' has weak anthocyanin coloration on dormant cane, angular to grooved dormant cane cross-section, medium intensity of green color of the upper side of the leaf, and the fruit shape in longitudinal section is elliptic, whereas 'DrisBlackTwelve' has medium anthocyanin coloration on dormant cane, rounded to angular dormant cane cross-section, dark intensity of green color of the upper side of the leaf, and the fruit shape in longitudinal section is medium ovate.

What is claimed is:

1. A new and distinct variety of blackberry plant designated 'DrisBlackThirty' as shown and described herein.

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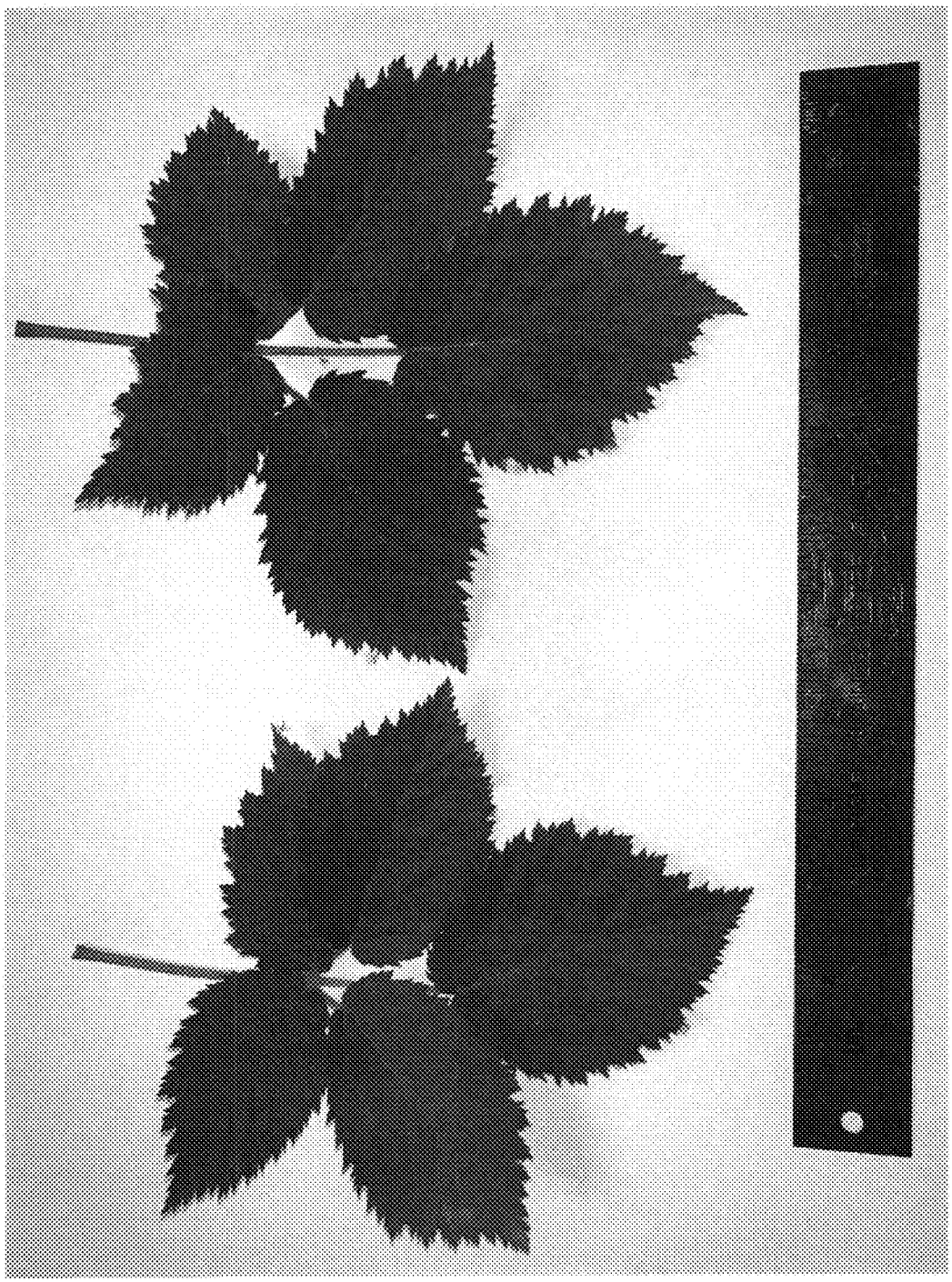

FIG. 1

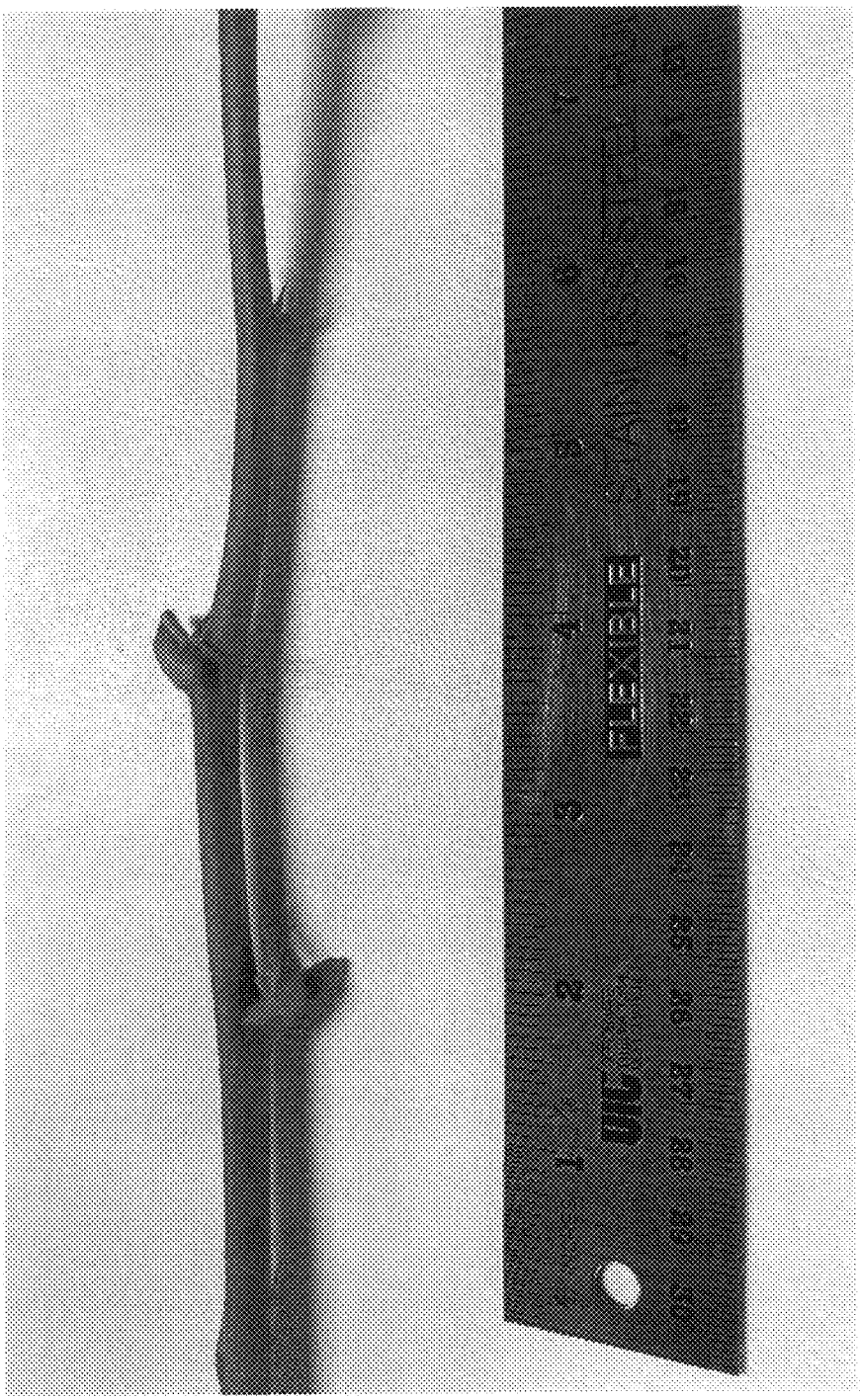

FIG. 2

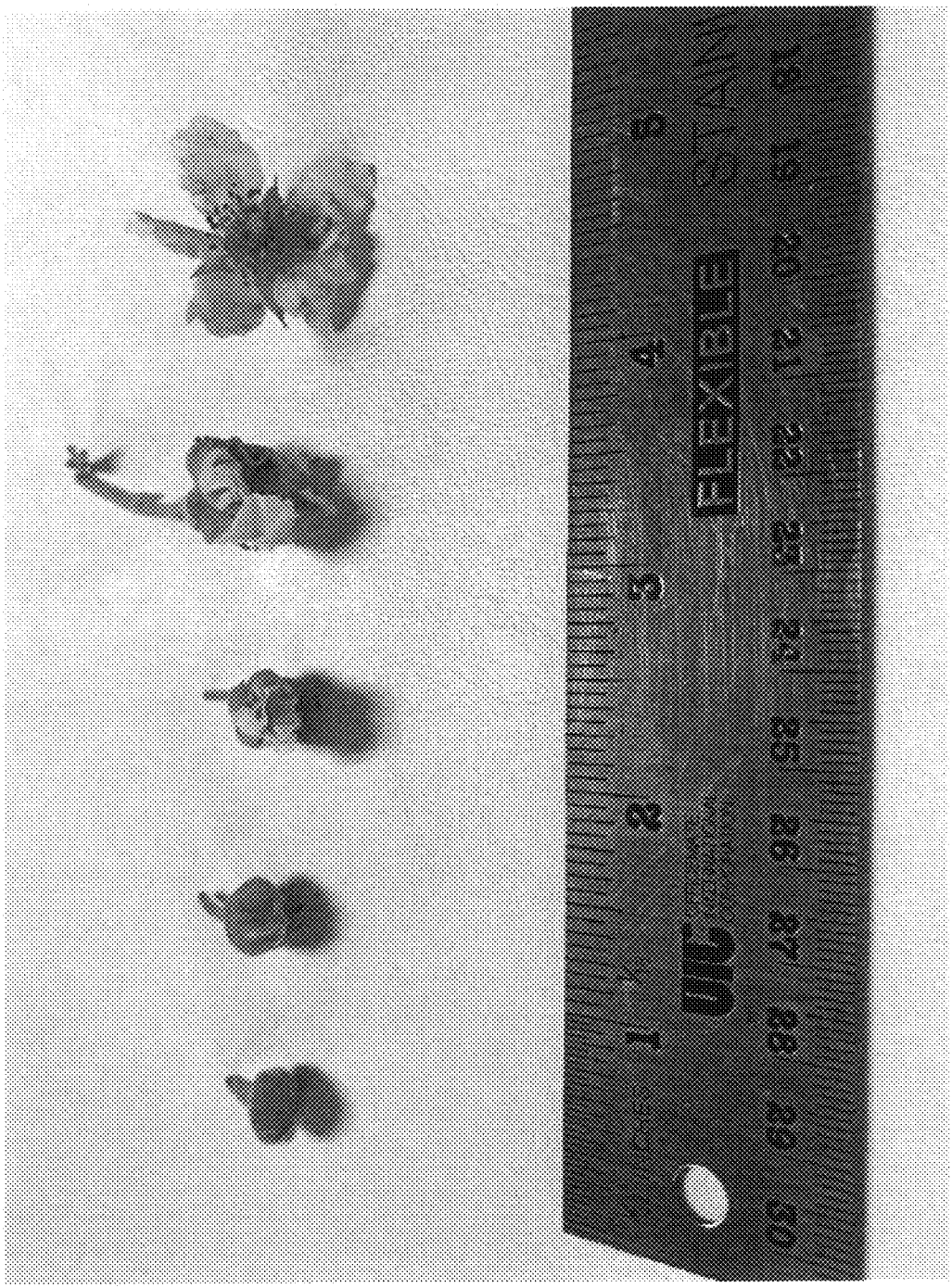

FIG. 3

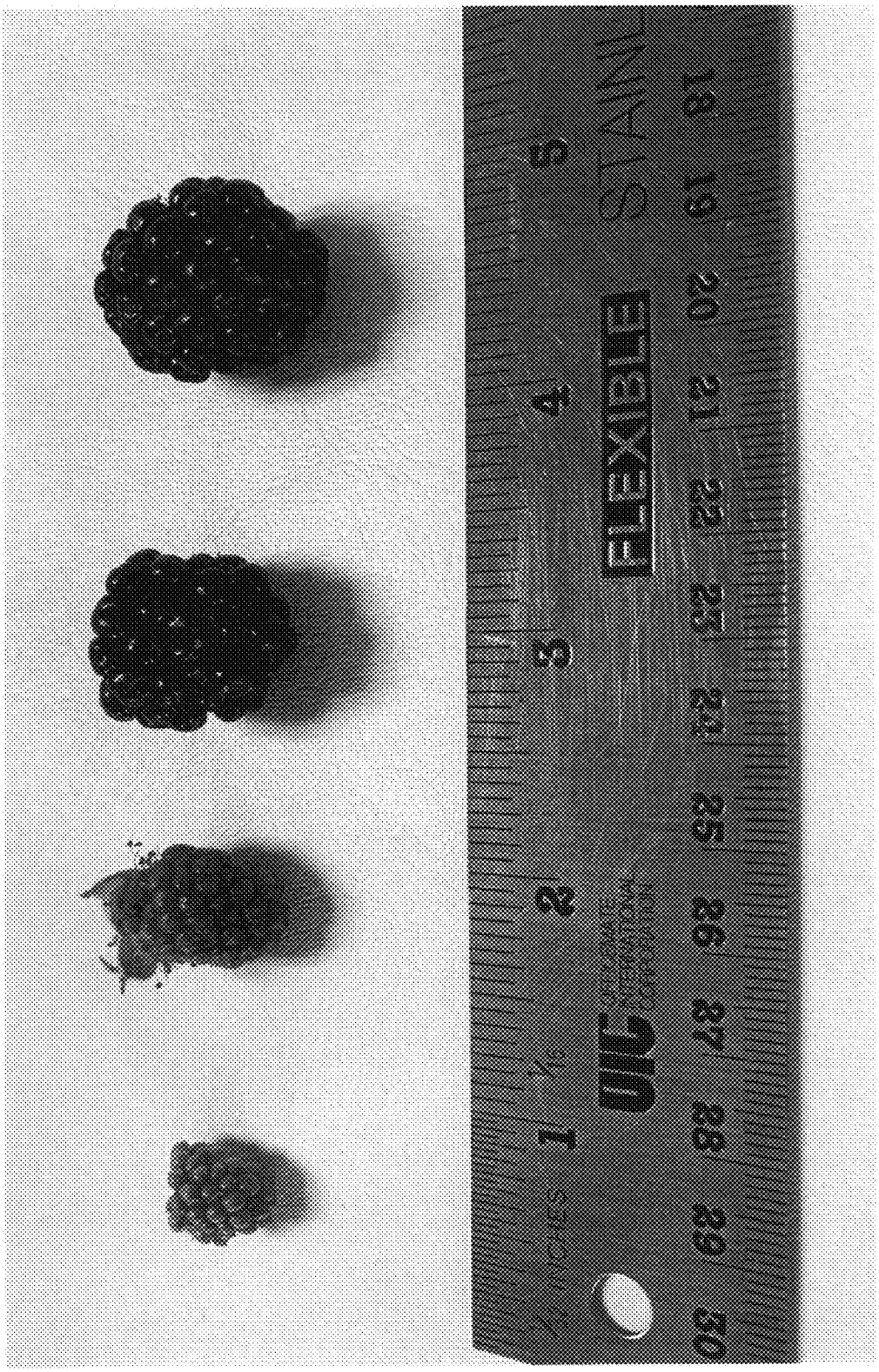

FIG. 4