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Sills et al.

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- (54) **BLACKBERRY PLANT NAMED
‘DRISBLACKTWENTYSEVEN’**
- (50) Latin Name: ***Rubus* L. subgenus *Rubus***
Varietal Denomination: **DrisBlackTwentySeven**
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- (*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.
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- (51) **Int. Cl.**
A01H 6/74 (2018.01)
A01H 5/08 (2018.01)
- (52) **U.S. Cl.**
USPC **Plt./203**
- (58) **Field of Classification Search**
USPC Plt./203
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of blackberry plant named
‘DrisBlackTwentySeven’, particularly selected for its fruit
size, firmness, and flavor, as well as spineless canes, is
disclosed.

5 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 ‘DrisBlackTwenty-
Seven’.

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, black-
berries 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

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contents of antioxidants, dietary fiber, vitamin C, and vita-
min 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.

Blackberries are perennial plants that typically bear bien-
nial stems (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 florican 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 'DrisBlackTwentySeven'.

Blackberry plant variety 'DrisBlackTwentySeven' was selected in Santa Cruz, Calif. in June of 2013 and originated from a controlled cross between the proprietary female parent blackberry plant 'BN972.1' (unpatented) and the male parent blackberry plant 'DrisBlackEighteen' (U.S. Plant Pat. No. 31,110). The original seedling of the new variety was first asexually propagated via root cuttings in Santa Cruz, Calif. in October of 2013.

'DrisBlackTwentySeven' was subsequently asexually propagated via root cuttings, and underwent testing in Santa Cruz, Calif. from 2015 to 2020 (five 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.

'DrisBlackTwentySeven' was selected for its fruit size, firmness, and flavor, as well as 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 'DrisBlackTwentySeven'.

FIG. 2 illustrates a section of a cane of variety 'DrisBlackTwentySeven'.

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

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

FIG. 5 illustrates a plant of variety 'DrisBlackTwentySeven'.

DETAILED BOTANICAL DESCRIPTION

The following descriptions set forth the distinctive characteristics of 'DrisBlackTwentySeven'. The data that define these characteristics are based on observations taken in Santa Cruz, Calif. from 2015 to 2020. 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. 'DrisBlackTwentySeven' has not been observed under all possible environmental conditions. The botanical description of 'DrisBlackTwentySeven' 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*, 2nd 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.—'DrisBlackTwentySeven'.

Parentage:

Female parent.—'BN972.1' (unpatented).

Male parent.—'DrisBlackEighteen' (U.S. Plant Pat. No. 31,110).

Plant:

Propagation.—Root cuttings and tissue culture.

Growth habit.—Upright.

Height.—253 cm.

Width.—72 cm.

Height/width ratio.—3.51.

Vigor.—Medium.

Self-fruitfulness.—Self-fruitful.

Canes:

Internodal distance.—14 cm.

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

Dormant cane.—Anthocyanin coloration: Absent or very weak. Color: RHS 143A (Strong yellow green). Predominant distribution of branches: Over whole length. Cross-section: Angular. Spine: Presence of spines: Absent.

Fruiting lateral.—Fruiting lateral length (4th lateral from tip): 69 cm. Number of fruits per fruiting lateral: 12.

Young shoots.—Length: 58 cm. Diameter: 2 cm. Anthocyanin coloration (during rapid growth): Absent or very weak. Color: RHS 139D (Moderate yellow green). Number of glandular hairs: Absent or few. Time of young shoot emergence: Mid-March.

Leaves:

Time of leaf bud burst.—Mid-March.

Leaf.—Predominant number of leaflets: 5. Type: Palmate. Relative position of lateral leaflets: Overlapping. Arrangement: Alternate. Venation: Cross-venulate. Vein color: RHS 135D (Light yellowish green). Color of upper side: RHS 135A (Dark green). Color

of lower side: RHS 135C (Strong yellowish green).
 Profile in cross-section: Flat (level with the leaflet blade). Glossiness of upper side: Weak.

Leaflet.—Type of incision of margin: Bi-serrate. Depth of margin incisions: Medium. 5

Terminal leaflet.—Length: 12 cm. Width: 9 cm. Length/width ratio: 1.33. Shape: Ovate. Base: Obtuse. Margin: Doubly serrate. Lobing: Absent. Shape in cross-section: U-shaped. Undulation of margin: Weak. Blistering between veins: Weak. 10

Lateral leaflet (single leaflet in basal pair).—Length: 9 cm. Width: 6 cm. Length/width ratio: 1.5. Shape: Ovate. Base: Obtuse. Margin: Doubly serrate.

Rachis (length between terminal leaflet and adjacent lateral leaflets).—2 cm. 15

Petiole.—Length: 8 cm. Diameter: 2 mm. Color of upper and lower surface: RHS 143B (Strong yellow green).

Stipule.—Length: 1 cm. Width: 2 mm. Color: RHS 143A (Strong yellow green). Orientation: Erect. 20

Inflorescence:

Flower bud.—Length: 8 mm. Width: 10 mm. Color: RHS 138B (Moderate yellow green).

Flower.—Diameter: 31 mm. Number of flowers observed at 3rd node from tip of lateral: 6. Fragrance: 25
 Very faint or absent.

Petal.—Length: 16 mm. Width: 13 mm. Length/width ratio: 1.23. Number of petals per flower: 5. Color: RHS 75C (Very light purple). Shape: Ovate. Apex: 30
 Rounded. Base: Obtuse. Margin: Entire.

Sepal.—Length: 6 mm. Width: 5 mm. Color: RHS 138B (Moderate yellow green).

Flower pedicel.—Length: 30 mm. Diameter: 2 mm. Color: RHS 138A (Moderate yellowish green).

Inflorescence peduncle.—Length: 21 mm. Diameter: 2 35
 mm. Color: RHS 138B (Moderate yellow green).

Reproductive organs.—Style: Length: 3 mm. Color: RHS 143B (Strong yellow green). Ovary: Color: RHS 143A (Strong yellow green). Stamen: Length: 40
 2 mm. Color: RHS 145C (Light yellow green). Pollen: Amount: Medium. Color: RHS 154D (Light yellow green).

Time of beginning of flowering on previous year's cane (floricane).—Early April to mid-May.

Fruit:

Length of mature fruit.—27 mm.

Diameter of mature fruit.—28 mm.

Ratio of length to width.—0.94.

Floricane fruit weight.—9 g/fruit.

Sweetness/soluble solids (in ° Brix).—11.

Titrateable acidity (% as citric acid).—1.73%.

Glossiness.—Medium.

Firmness.—Firm.

Fruit shape in longitudinal section.—Elliptic.

Fruit color.—RHS 203A (Black).

Drupe.—Length of single drupe: 4.8 mm. Diameter of single drupe: 4.2 mm. Average number of drupes per fruit: 112.

Seed.—Diameter: 2 mm. Weight: 0.00259 g/seed. Color: RHS 167D (Moderate orange yellow).

Fruiting on current year's cane.—Absent.

Harvest interval on previous year's cane.—Mid-June to mid-July.

Yield.—19,000 pounds (lbs) to 29,000 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).—Moderately resistant.

COMPARISON TO PARENTAL AND REFERENCE BLACKBERRY VARIETIES

'DrisBlackTwentySeven' differs from the proprietary female parent 'BN972.1' in that 'DrisBlackTwentySeven' has a higher yield potential compared to 'BN972.1'. Further, 'DrisBlackTwentySeven' is a spineless plant, whereas 'BN972.1' has spines.

'DrisBlackTwentySeven' differs from the male parent 'DrisBlackEighteen' (U.S. Plant Pat. No. 31,110) in that 'DrisBlackTwentySeven' has an upright growth habit, weak glossiness of the upper leaf surface, the number of glandular hairs on the young shoot is absent or few, and has a U-shaped cross section of the terminal leaflet, whereas 'DrisBlackEighteen' has an upright to semi-upright growth habit, medium glossiness of the upper leaf surface, the number of glandular hairs on the young shoot is medium, and has a V-shaped cross section of the terminal leaflet. 'DrisBlackTwentySeven' also has higher vigor when compared to 'DrisBlackEighteen'.

'DrisBlackTwentySeven' differs from the reference variety 'DrisBlackSix' (U.S. Plant Pat. No. 25,502) in that 'DrisBlackTwentySeven' has an upright growth habit, absent or very weak anthocyanin coloration on dormant cane, absent or very weak anthocyanin coloration on young shoot (during rapid growth), and the dormant cane length is medium, whereas 'DrisBlackSix' has a semi-upright growth habit, strong anthocyanin coloration on dormant cane, strong anthocyanin coloration on young shoot (during rapid growth), and the dormant cane length is long.

What is claimed is:

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

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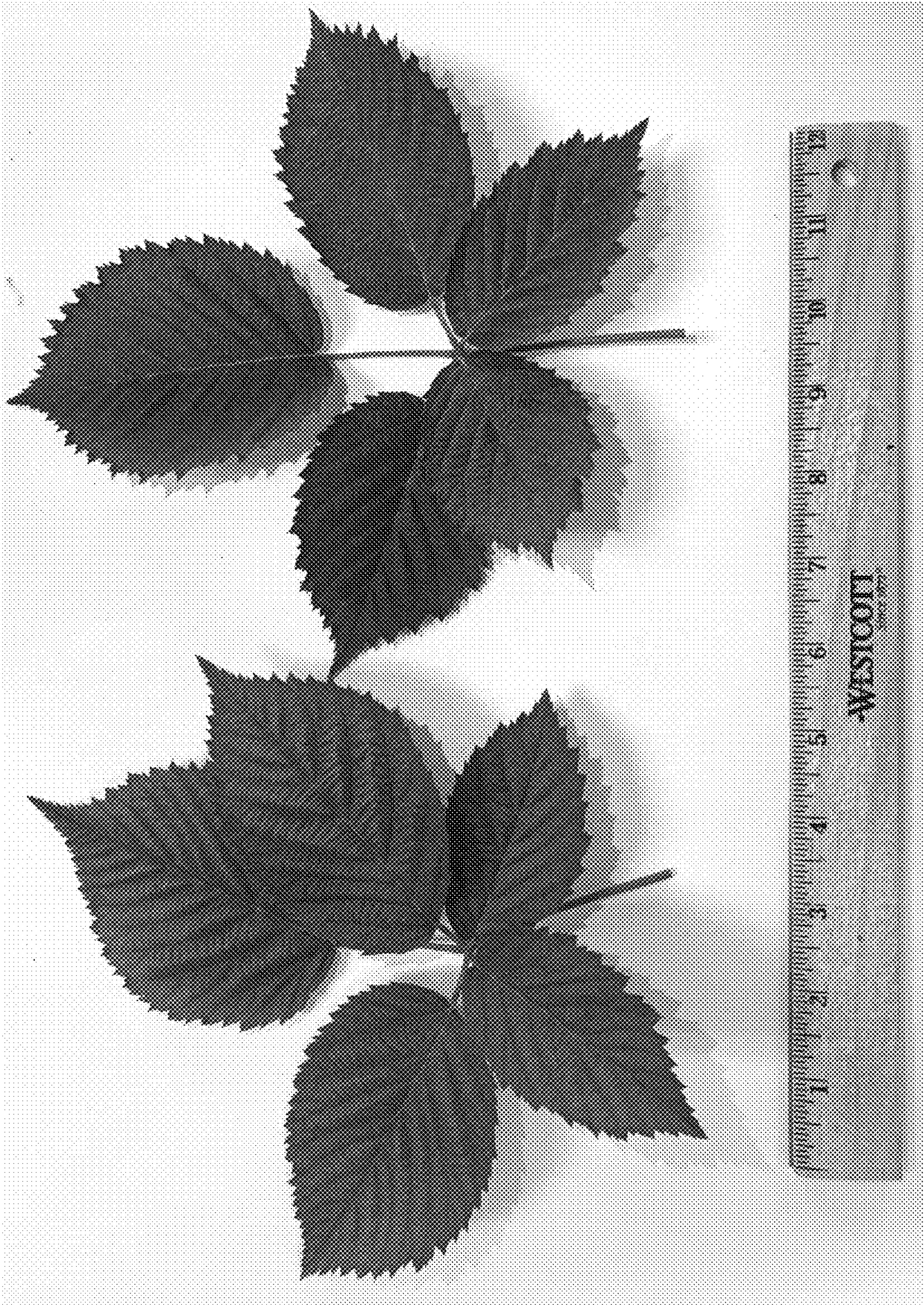


FIG. 1

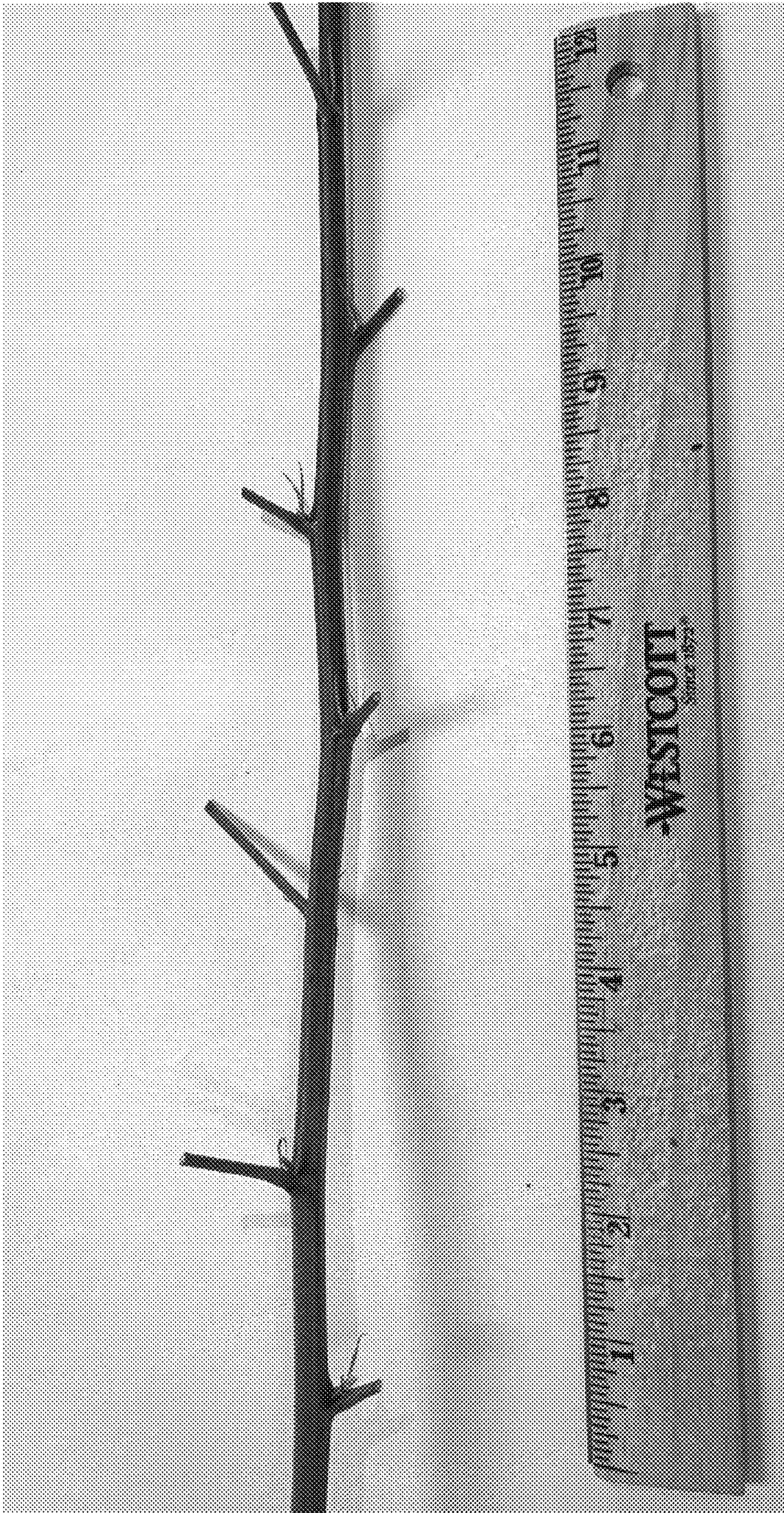


FIG. 2

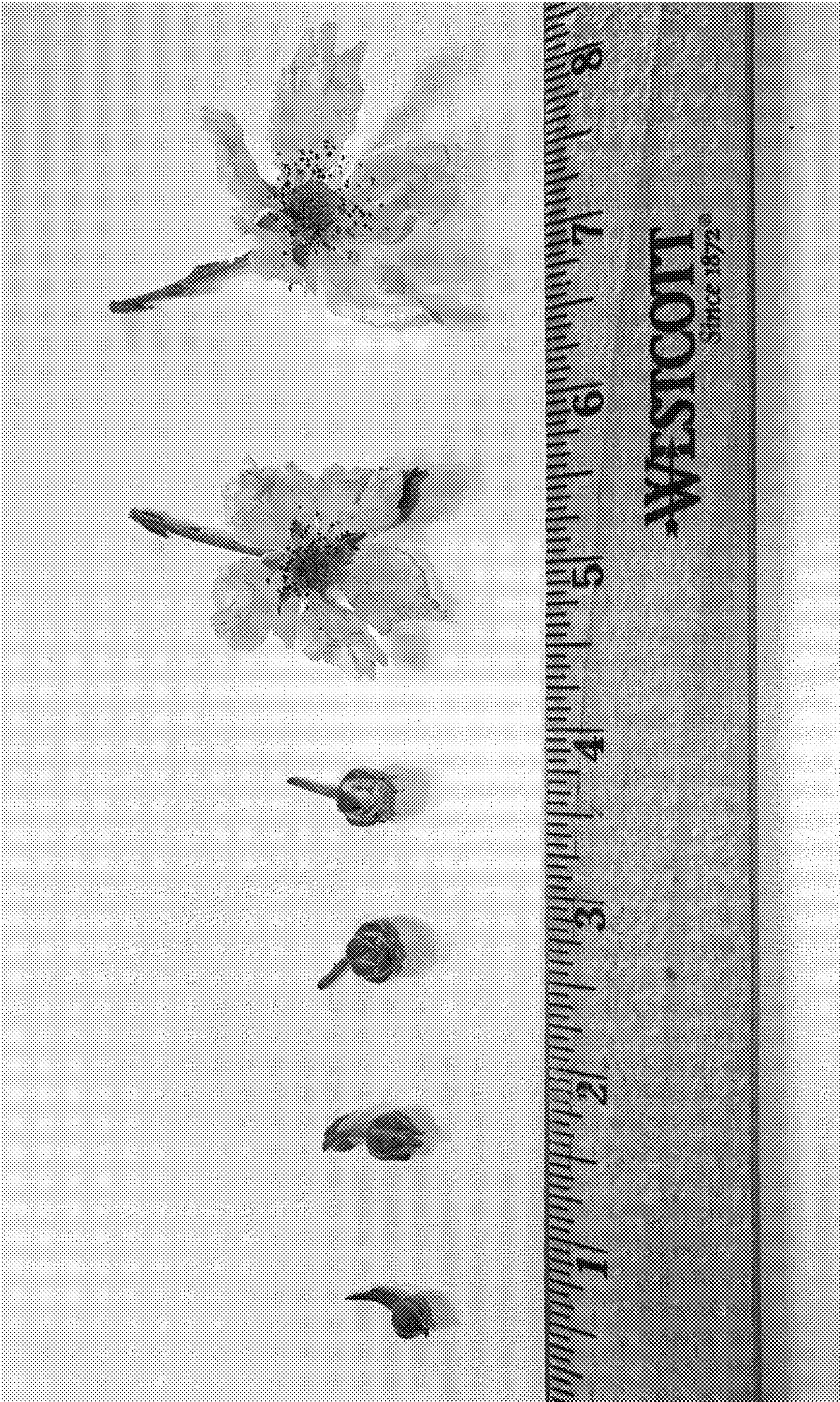


FIG. 3

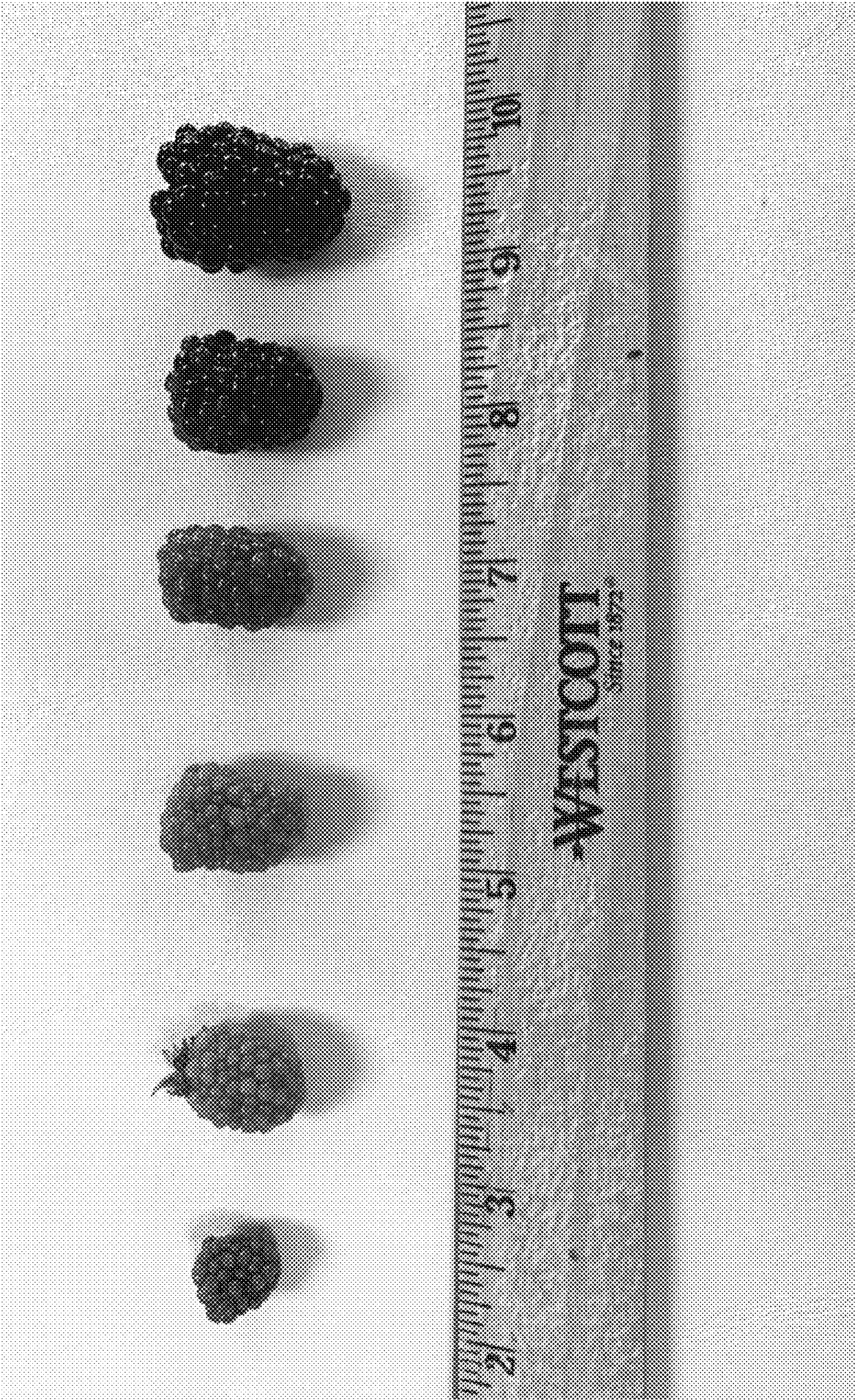


FIG. 4



FIG. 5