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**NeSmith et al.**

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(54) **SOUTHERN Highbush BLUEBERRY**  
**PLANT NAMED ‘CAMELLIA’**

(51) **Int. Cl.**  
**A01H 5/00** (2006.01)

(50) Latin Name: *Vaccinium sp. hybrida*  
Varietal Denomination: **Camellia**

(52) **U.S. Cl.** ..... **Plt./157**

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(58) **Field of Classification Search** ..... Plt./157  
See application file for complete search history.

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patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

The most distinctive feature of the southern highbush  
blueberry, ‘Camellia’, is its combination of excellent fruit  
attributes, especially size and color, its relatively late flow-  
ering for a mid- to early-season variety and its excellent  
plant vigor under field and high density growth conditions.

(21) Appl. No.: **11/282,299**

(22) Filed: **Nov. 18, 2005**

(65) **Prior Publication Data**

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**4 Drawing Sheets**

**1**

Botanical classification: *Vaccinium sp. hybrida*.  
Varietal denomination: ‘Camellia’.

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pursuant to the Hatch Act.

**BACKGROUND OF THE INVENTION**

‘Camellia’ was selected in 1996 at the Coastal Plain  
Experiment Station in Tifton, Ga. from a cross of MS-122  
xMS-6. MS-122 was the female parent and MS-6 was the  
male parent. MS-122 is a progeny from across of G-144  
xUS-121, and MS-6 is from a cross of G-107 x ‘Sharpblue’  
(non patented). The numbered parents are breeding lines  
which are no longer available. These were never released or  
otherwise utilized because of inferior fruit quality and/or  
plant vigor. ‘Camellia’ a hybrid containing mostly *V. corym-*  
*bosum* with a small amount of *V. darrowi*. ‘Camellia’ has  
been tested in a planting at Alapaha Ga., since 1998.

‘Camellia’ has been asexually propagated on many occa-  
sions since 1996 by softwood cuttings at Griffin, Ga. It roots  
readily from softwood cuttings and in all cases the clones  
propagated from cuttings have maintained the vegetative  
and fruit characteristics of the original selection.

‘Camellia’ has been primarily compared with four south-  
ern highbush standard cultivars, ‘Georgiagem’ (non  
patented), ‘O’Neal’ (non patented), ‘Sharpblue’ (non  
patented) and ‘Star’ (PP 10,675). One of the most outstand-  
ing characteristics of ‘Camellia’ is its high degree of plant  
vigor when grown with and without pine bark mulch. Its  
plant vigor when grown at Alapaha, Ga. from 1998 to 2000,  
on a rating scale of 1 to 10 with 10 being excellent, was 6.0  
(without mulch) and 9.0 (with mulch) compared to 3.3 and

**2**

6.3 for ‘Georgiagem’, 3.0 and 5.7 for ‘O’Neal’, 4.3 and 5.7  
for ‘Sharpblue’, and 4.3 and 6.3 for ‘Star’.

When grown under field conditions at Alapaha, Ga., from  
1999 through 2002, the average berry size, berry color, and  
plant vigor were outstanding. The ‘Camellia’ berry size  
rating of 9.3 was significantly better than ‘Georgiagem’  
(7.5), ‘O’Neal’ (8.1), ‘Sharpblue’ (7.7) and ‘Star’ (7.8).  
‘Camellia’s’ berry color rating of 9.0 was significantly better  
than ‘Georgiagem’ (7.9), ‘O’Neal’ (7.9), ‘Sharpblue’ (8.4)  
and ‘Star’ (8.0), and its plant vigor rating of 9.3 was  
significantly better than ‘Georgiagem’ (7.0), ‘O’Neal’ (5.1),  
‘Sharpblue’ (6.8) and ‘Star’ (6.3). The large berry size and  
highly blue fruit are very desirable for marketing.

The average 50% flowering date over a 4 year period for  
‘Camellia’ grown under field conditions at Alapaha, Ga.,  
was significantly later than ‘O’Neal’ (11 days), ‘Sharpblue’  
(15 days), ‘Star’ (9 days), and similar to ‘Georgiagem’,  
thereby reducing the risk of spring freeze damage. Its 50%  
ripening date was similar to the other four varieties so it is  
within the mid- to early-season for production.

Some growers in Georgia are growing southern highbush  
blueberries in a high density system utilizing pine bark beds.  
A high density planting was established during 2002 at  
Alapaha, Ga., to evaluate performance of ‘Camellia’ com-  
pared to ‘Emerald’ (PP 12,165) and ‘Star’ under these  
conditions. ‘Camellia’ showed greater plant vigor (9.3) than  
‘Emerald’ (8.3) or ‘Star’ (6.5), and greater berry weight  
(1.92 g) at first harvest and overall harvest (1.48 g) than  
‘Star’ (1.21 g and 1.29 g, respectively) with similar weights  
to ‘Emerald’ (1.88 g and 1.75 g, respectively). The total  
berry yield of ‘Emerald’ was grater than ‘Camellia’, but the  
15 days earlier flowering date of ‘Emerald’ greatly increases  
the risk of substantial frost damage in many years.



## BRIEF DESCRIPTION OF THE PHOTOGRAPHS

FIG. 1 shows a 2 year old plant bearing fruit at Griffin, Ga. Jun. 13, 2005).

FIG. 2 shows a cluster of berries (Jun. 13, 2005).

FIG. 3 shows a plant in bloom (Apr. 1, 2005), at Griffin, GA., significantly later than most mid- to early-season varieties.

FIG. 4 shows fruit size of 'Camellia' (TH-621) compared to 'Star' (Aug. 11, 2005).

## SUMMARY OF THE INVENTION

'Camellia' is a mid- to early-season southern highbush blueberry having highly favorable fruit attributes, especially size and color, relatively late flowering, and excellent plant vigor. It has similar chill hour requirements to other early season Southern highbush varieties, in the range of 400 to 450 hours.

## BOTANICAL DESCRIPTION OF THE PLANT

The following is a detailed description of the botanical and pomological characteristics of 'Camellia'. Where dimensions, sizes, colors, and other characteristics are given, it is to be understood that such characteristics are approximations and averages set forth as accurately as practicable. Color data are presented in Royal Horticultural Society Colour Chart designations. The descriptions reported herein are largely from specimen plants grown in Alapaha, Ga. and Griffin, Ga., with supplemental irrigation. Plants were 2 to 4 years old.

## Plant:

*Size.*—Reaches 1.5 to 2.0 m tall by 4 years. Three to four year old plants have a spread of 20 to 30 cm at the base and 80–110 cm near the top of plant.

*Growth habit.*—Strong upright growth habit. Narrow crowns, limited suckering.

*Growth.*—High vigor; strong cane growth.

*Productivity.*—Medium, averaging 4.5 to 5 lbs per plant each year for 3 to 4 year old plants grown in bark beds with irrigation.

*Cold hardiness.*—Plants should survive in USDA hardiness zones 6 thru 9.

*Chilling requirement.*—Plants require 400 to 450 hours of temperatures at or below 45° F. (7° C.) to induce normal leafing and flowering during the spring.

*Leafing.*—Plants do not readily break numerous leaf buds simultaneously with anthesis.

*Canes.*—Cane 3 years old and older can be 20 to 30 mm in diameter; color is Greyed-Green (197C). 2 years old wood is 5 to 10 mm in diameter; color is Yellow-Green (145A). Current season shoot is 2 to 4 mm in diameter; color is Yellow-Green (145B).

*Diseases.*—Reasonable tolerance to the soil born diseases, pythium, phytophthora and rhizoctonia. Less susceptible to septoria leaf spot than 'Star'.

## Foliage:

*Leaf color.*—Healthy mature leaves: top side of leaf color is Green (137A), under side of leaf color is Yellow-Green (148C).

*Leaf arrangement.*—Alternate, distichous.

*Leaf shape.*—Elliptic.

*Leaf margins.*—Nearly Entire, slightly crenate near base.

*Leaf venation.*—Reticulate.

*Leaf apices.*—Acuminate.

*Leaf bases.*—Acute to acuminate.

*Leaf dimensions.*—Length 65 to 75 mm; width 25 to 35 mm.

*Leaf surface.*—Smooth, with moderate wax for a high-bush cultivar.

*Petioles.*—Small, 4.0 to 6.0 mm long. Color is Yellow-Green (145B). Petiole width is 1.6 to 1.8 mm.

## Flowers:

*Date of 50% anthesis.*—March 11 (4 year average in southeast Georgia).

*Flower shape.*—Urceolate.

*Flower bud number.*—Medium.

*Flowers per cluster.*—5 to 7.

*Flower fragrance.*—A light, fruit fragrance is sometimes present.

*Corolla color.*—White (155A) open flower.

*Corolla length.*—8.5 to 9.5 mm.

*Corolla width.*—8.5 to 10.0 mm.

*Corolla aperture width.*—3.5 to 4.8 mm.

*Flower peduncle.*—Length 15 to 22 mm; Color Yellow-Green (145A).

*Flower pedicel.*—Length 5 to 8 mm; Color Green (146C).

*Calyx (with sepals).*—Diameter 6.5 to 7.0 mm; color Yellow-Green (146D).

*Stamen.*—Length 7.2 to 7.5 mm; number per flower 10; filament color: Yellow-Green (145C).

*Style.*—Length 9.0 to 9.5 mm; color Yellow-Green (145A).

*Pistil.*—Length 11.5 to 12.0 mm; ovary color (exterior) Green (139C).

*Anther.*—Length 4.3 to 4.5 mm; number 10; color Greyed-Orange (165B).

*Pollen.*—Abundance: medium; color Yellow-Orange (18B).

The cultivar has a moderate degree of self-compatibility. It should be grown with another cultivar such as 'Star', 'Palmetto' (PP Application No. 10/909,650, issued on Jul. 4, 2006 as U.S. PP 16,756) or 'O'Neal'.

## Fruit:

*Date of 50% maturity.*—May 14 (4 year average in southeast Ga.). Date of 10% maturity is May 3<sup>rd</sup> and date of 90% maturity is May 26<sup>th</sup> on average.

*Fruit development period.*—64 to 69 days.

*Berry color.*—With wax Violet-Blue (97C); with wax removed Black (202A).

*Berry surface wax abundance.*—Very high.

*Berry flesh color.*—White (155C).

*Berry weight.*—1st harvest 2.3 g to 2.6 g; 2<sup>nd</sup> harvest 1.8 g to 2.0 g.

*Berry size.*—Height from calyx to scar 14.0 to 15.0 mm; diameter 18.0 to 21.0 mm.

*Berry shape.*—Berry shape is nearly spherical.

*Fruit stem scar.*—Medium, dry, no tearing.

*Berry firmness.*—Good to excellent.

*Berry flavor and texture.*—Good flavor, excellent texture.

*Storage quality.*—Good to excellent.

*Suitability for mechanical harvesting.*—Not likely.

*Uses.*—Primarily used as fresh fruit for shipping.

## Seed:

*Seed abundance in fruit.*—Low to medium.

*Seed color.*—Greyed-Orange (165B).

*Seed dry weight.*—51.2 mg per 100 seed.

*Seed size.*—1.0 to 1.5 mm long for fully developed seeds.

## We claim:

1. A new and distinct variety of southern highbush blueberry plant, substantially as illustrated and described.

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Fig. 1

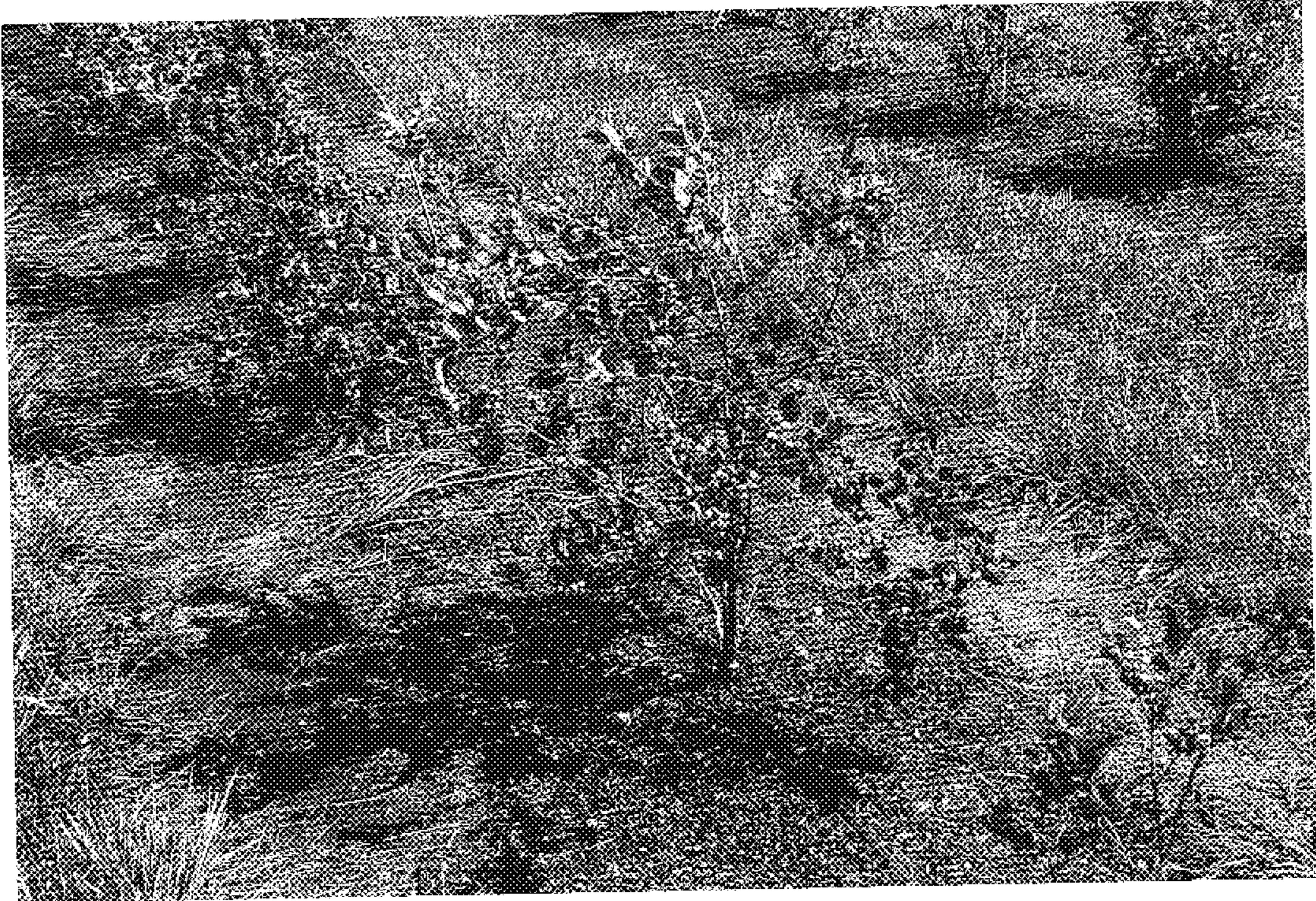




Fig. 2

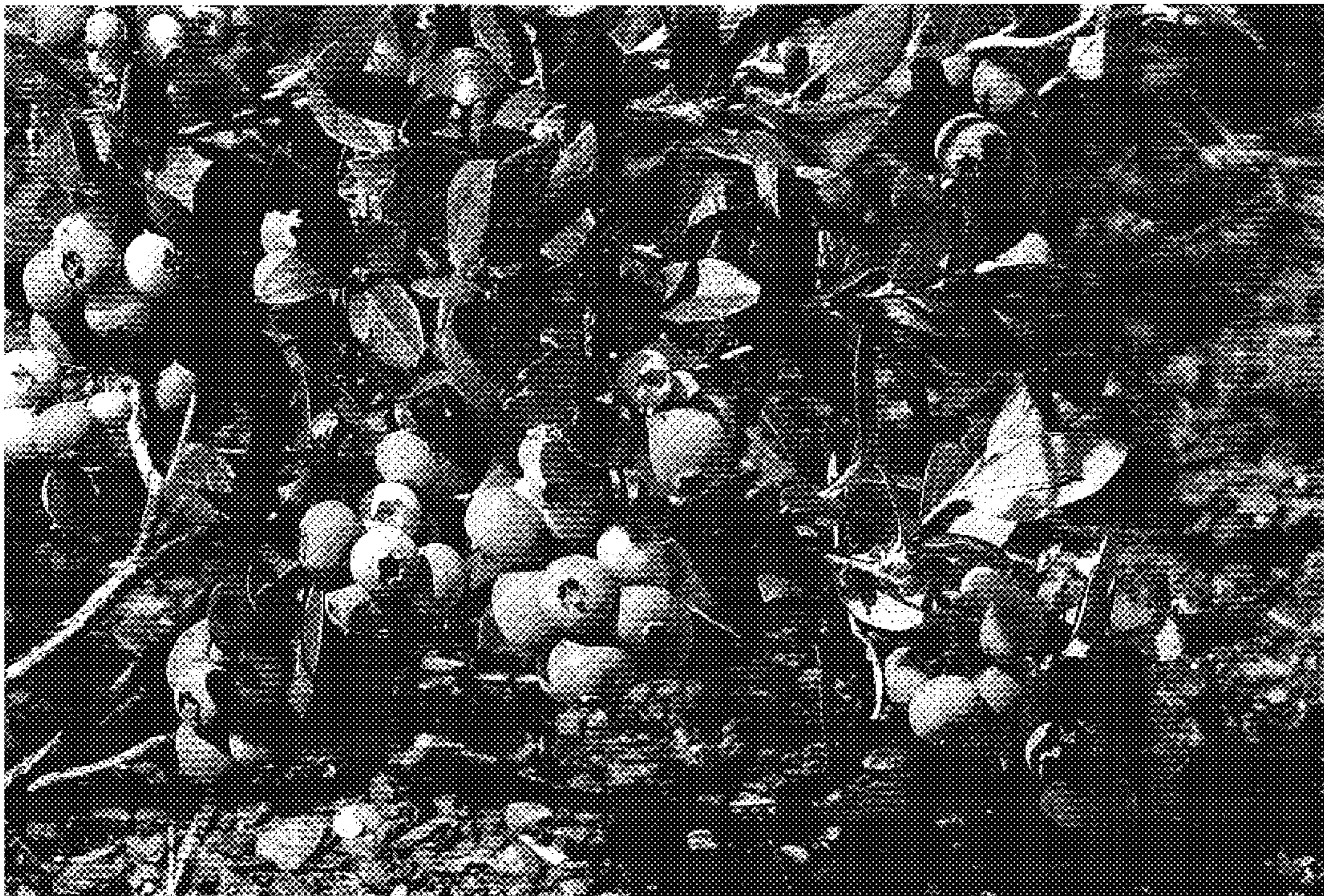




Fig. 3

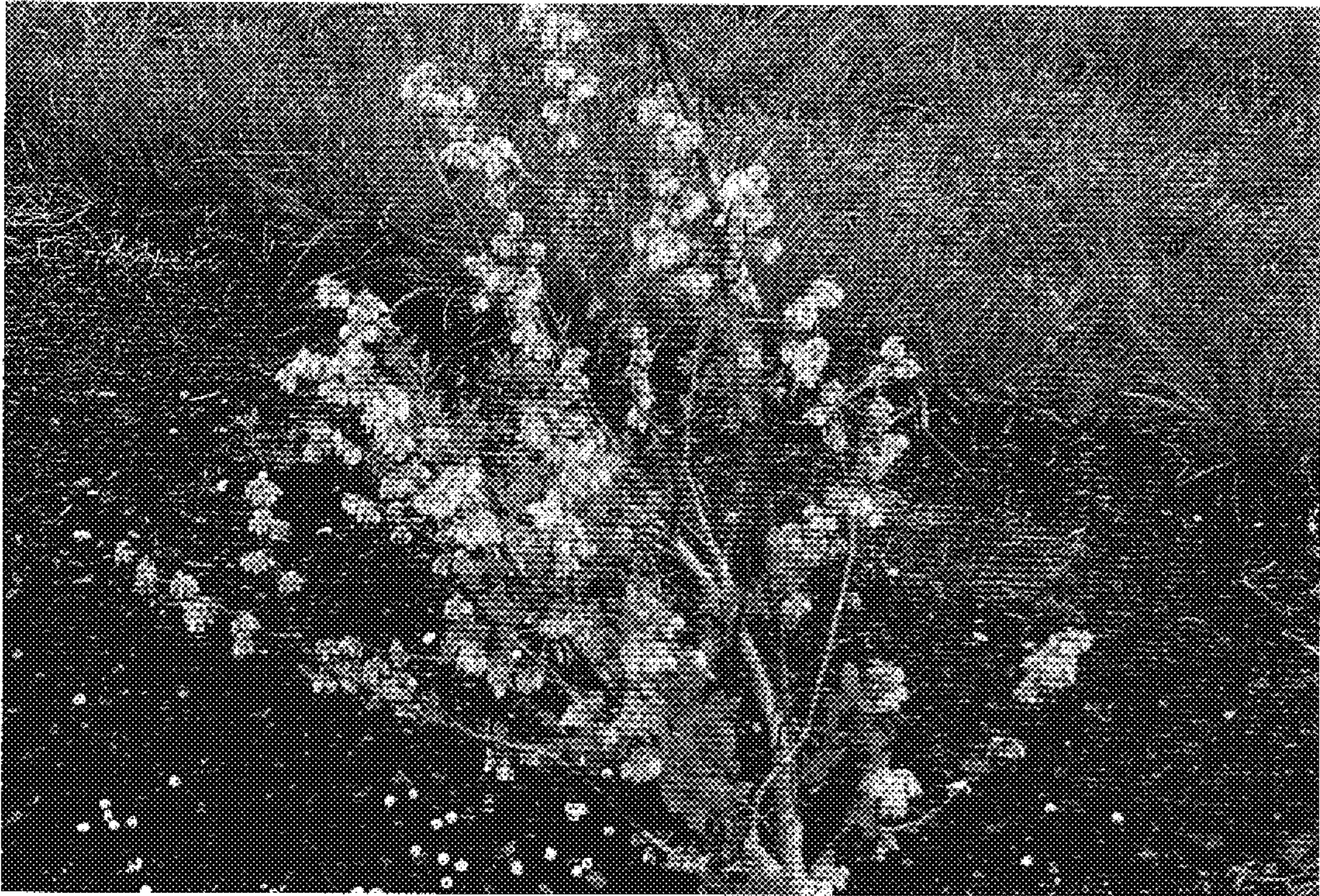




Fig. 4

