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Mazzardis

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(54) **BLUEBERRY PLANT NAMED 'NS 14-1'**

(50) Latin Name: *Vaccinium* **hybrid**
Varietal Denomination: **NS 14-1**

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

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(57) **ABSTRACT**

A new and distinct variety of blueberry plant, which is denominated varietally as 'NS 14-1' is described, with a strong vigor and which produces large to very large fruit, which is medium in acidity and medium in firmness, under the ecological conditions prevailing in Yanchep, Western Australia.

3 Drawing Sheets

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CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of priority under 35 USC § 119 to Community Plant Variety Office (CPVO) Application No. 2018/3062 for Community Plant Variety Rights, filed on Nov. 22, 2018 for a blueberry plant with a variety denomination of 'NS 14-1', which is herein incorporated by reference in its entirety.

Latin name: *Vaccinium* hybrid.

Variety denomination: The invention relates to a new, novel, and distinct variety of blueberry plant, a *Vaccinium* hybrid, with a variety denomination hereinafter as 'NS 14-1'.

SUMMARY

The new variety of blueberry plant resulted from an ongoing development program of plant breeding conducted to identify such plants. The purpose of the program was to improve the commercial quality of blueberry plants and other plant species. To this end, controlled, hybrid, cross-pollinations were made in order to produce plant populations from which improved progeny were evaluated and thereafter selected.

The 'NS 14-1' blueberry plant was originated and selected from a population of new plants growing on the breeder's property, which is located at Yanchep Springs in Yanchep, Western Australia. The new variety of blueberry plant was derived from a controlled, hybrid, cross-pollination of the seed parent, blueberry plant '7-26' (unpatented), and a pollen parent, blueberry plant 'EB 8-30' (U.S. Plant Pat. No. 25,889, which is herein incorporated by reference in its entirety) during the 2012 growing season.

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Prior Varieties. The seed parent '7-26' is characterized principally by a semi-upright growth habit, a medium vigor, an early season first pick date, and further produces large-sized, medium firmness, high sweetness, and low acidity fruit under the ecological conditions occurring in Yanchep, Western Australia. The seed parent '7-26' is semi-evergreen and produces fruit on one-year old shoots only.

The pollen parent 'EB 8-30', on the other hand, is characterized principally by a semi-upright growth habit, a medium vigor, a very early season first pick date, and further produces medium-to-large-sized, firm, high sweetness, and low acidity fruit under the ecological conditions occurring in Yanchep, Western Australia. The pollen parent 'EB 8-30' is evergreen and produces fruit on one-year old shoots only.

Origin. The seed from the seed parent '7-26' produced approximately 600 plants following cross-pollination. These new plants were then grown at the aforementioned property, and fruit from these new plants was first observed in 2014. A subsequent assessment of these same self-fertile, new plants conducted during the 2015 growing season led to selecting the 'NS 14-1' variety for further evaluation.

Asexual Reproduction. The further evaluation included an asexual vegetative propagation, by vegetative cuttings, at Yanchep Springs in Yanchep, Western Australia. Subsequent evaluations of the newly derived plants in the 2016 growing season led to a conclusion that the 'NS 14-1' variety was a distinct and new variety of blueberry plant found to be true to the original plant. The new variety of blueberry plant was considered to be novel in view of its strong vigor and large to very large fruit, which exhibited medium acidity and medium firmness.

Comparisons. In comparison to the seed parent '7-26' under the ecological conditions occurring in Yanchep, Western Australia, the new variety has a noteworthy vigor. In this

regard, the seed parent is considered to have a medium vigor. However, the new variety of blueberry plant has a strong vigor. In addition, the seed parent produces fruit having a fruit size considered to be large. In contrast, the new variety of blueberry plant produces fruit considered to be large to very large. Further, the seed parent produces fruit considered to exhibit low acidity. This is in contrast to the fruit of the new variety of blueberry plant, which is considered to exhibit medium acidity. Still further, the seed parent produces fruit considered to exhibit medium firmness. This is comparable to the fruit of the new variety of blueberry plant, which is also considered to exhibit medium firmness.

In comparison to the pollen parent 'EB 8-30' under the ecological conditions occurring in Yanchep, Western Australia, the new variety has a noteworthy vigor. In this regard, the pollen parent is considered to have a medium vigor. However, the new variety of blueberry plant has a strong vigor. In addition, the pollen parent produces fruit having a fruit size considered to be medium to large. In contrast, the new variety of blueberry plant produces fruit considered to be large to very large. Further, the pollen parent produces fruit considered to exhibit low acidity. This is in contrast to the fruit of the new variety of blueberry plant, which is considered to exhibit medium acidity. Still further, the pollen parent produces fruit considered to be firm. This is comparable to the fruit of the new variety of blueberry plant, which is also considered to exhibit medium firmness.

The new variety of blueberry plant is readily distinguishable from the most closely related, known variety, the 'EB 8-46' blueberry plant described in U.S. Plant Pat. No. 26,173, which is herein incorporated by reference in its entirety. In this regard, the closest known variety 'EB 8-46' has a vigor considered to be medium to strong under the ecological conditions prevailing in Yanchep, Western Australia. In contrast, the new variety of blueberry plant has a vigor considered to be strong. In addition, both the closest known variety and the new variety of blueberry plant produce fruit having a fruit size considered to be large to very large for the species. Further, the closest known variety produces fruit having a fruit acidity considered to be low. This is in contrast to the new variety, which produces medium acidity fruit. Still further, the closest known variety produces fruit considered to be firm to very firm. This is in contrast to the fruit of the new variety of blueberry plant, which is considered to exhibit medium firmness.

The comparisons described above are summarized in the table below.

Summary of Comparisons

	'NS 14-1'	'EB 8-46'	'7-26' (Seed)	'EB 8-30' (Pollen)
Plant vigor	Strong	Medium to strong	Medium	Medium
Fruit size	Large to very large	Large to very large	Large	Medium to large
Fruit acidity	Medium	Low	Low	Low
Fruit firmness	Medium	Firm to very firm	Medium	Firm

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings are color photographs of the new blueberry plant 'NS 14-1' during the second year of growth under the ecological conditions prevailing at the breeder's property, which is located at Yanchep Springs in Yanchep, Western Australia.

FIG. **1** is a color photograph, which shows fruit of the new blueberry plant 'NS 14-1', the fruit being sufficiently mature for harvesting and shipment. This photograph also depicts the large to very large fruit size and the color of the ripe fruit.

FIG. **2** is a color photograph, which shows the new blueberry plant 'NS 14-1'. This photograph depicts a mature bush with ripe and unripe fruits, the large to very large fruit size, and the upright growth habit of the bush. The ripe fruit is sufficiently mature for harvesting and shipment.

FIG. **3** is a color photograph, which shows a portion of a vegetative stem bearing leaves of the new blueberry plant 'NS 14-1'. This photograph depicts leaves at different stages of maturation, the upper and under side coloration thereof, and three blooms at different stages of maturation.

The colors in these photographs are as nearly true as is reasonably possible in a color representation of this type. Due to variations in color printers and/or chemical development, processing and printing, the colors of the plant parts depicted in these photographs may, or may not, be accurate when compared to the actual specimen. For this reason, color references are made to the color plates (Royal Horticultural Society Colour Chart, Sixth Edition, hereinafter, "R.H.S.") and descriptions provided.

DETAILED BOTANICAL DESCRIPTION

Not a Commercial Warranty. The following detailed description was prepared solely to comply with the provisions of 35 U.S.C. § 112, and does not constitute a commercial warranty (either expressed or implied) that the present variety will, in the future, display the botanical, horticultural, or other characteristics set forth herein. Therefore, this disclosure may not be relied upon to support any future legal claims including, but not limited to, breach of warranty of merchantability, or fitness for any particular purpose, or non-infringement, which is directed in whole, or in part, to the present new variety of plant.

Referring more specifically to the botanical features of this new and distinct variety of blueberry plant, the following has been observed during the second year of growth under the ecological conditions prevailing at the breeder's property, which is located at Yanchep Springs in Yanchep, Western Australia.

Plant: General.

Vigor.—Considered strong for the species. This is in contrast to the seed parent '7-26', wherein the plant vigor is only considered medium. This is also in contrast to the pollen parent 'EB 8-30', wherein the plant vigor is only considered medium. This is further in contrast to the closest known variety 'EB 8-46', wherein the plant vigor is considered medium to strong.

Growth habit.—Considered upright. This is in comparison to the commercial variety 'Ivanhoe', (unpatented), which is considered to be upright.

Average size of plant.—1.55 meters in height by 1.05 meter in width.

Internode length (*space between nodes*).—Considered very short, 6 to 7 millimeters (mm).

Bark color.—RHS Grey Reddish Orange Group 174B.

Color, one year old shoots.—RHS Moderate Yellow Green Group 147B and RHS Greyish Red Group 182B.

Fruiting type.—On one-year-old shoots only, in like manner to commercial varieties 'Darrow' (unpatented), and 'Patriot' (unpatented).

Foliage: General.

Average leaf length.—Considered medium to long for the species, 60.6 mm.

Average leaf width.—Considered medium to broad for the species, 29.9 mm.

Color of leaf upper.—RHS Moderate Olive Green Group 146A.

Color of leaf underside.—RHS Greyish Yellow Green Group 148C.

Vein color of plant leaf.—RHS Moderate Yellow Green Group 146B.

Venation pattern of leaf.—Pinnate reticulate.

Leaf apex texture.—Glabrous.

Leaf apex shape.—Acute.

Leaf base shape.—Acute.

Leaf shape.—Elliptic.

Leaf margin.—Entire or serrate — Entire.

Leaf arrangement of plant.—Alternate.

Flowers:

Number of flowers per inflorescence.—6 to 8.

Average length of inflorescence (excluding peduncle).—Considered medium, 13.68 mm.

Corolla shape.—Urceolate.

Corolla tube surface texture.—Ridges are present on the corolla tube.

Average corolla size.—Considered medium to large, 9 to 10 mm in length by 7 to 8 mm in width.

Corolla diameter.—7.82 mm.

Average corolla aperture size.—3.84 mm.

Corolla color.—RHS White Group NN155D.

Pedicel color.—RHS Pale Green Group 149D.

Average pedicel length.—3.69 mm.

Average calyx diameter.—Considered small to medium, 4.95 mm.

Average calyx basin depth.—Considered deep, 2.87 mm.

Attitude of sepals.—Considered erect.

Type of sepals.—Considered incurving.

Reproductive organs:

Average size of pollen anthers.—5.35 mm.

Color of pollen anthers.—RHS Strong Orange Group 170A.

Average pistil length.—9.68 mm.

Pistil color.—RHS Strong Yellow Green Group 145A.

Fruit:

Color of unripe fruit.—RHS Strong Yellow Green Group 144B.

Color of fruit skin.—RHS Bluish Black Group 203C, also considered "dark blue" in like color to the commercial variety 'Heerma' (unpatented), after removal of bloom.

Color of ripe fruit flesh.—RHS Light Yellow Green Group 145B.

Color of seeds.—RHS Strong Orange Yellow Group 163B.

Average fruit size.—Considered large to very large, 20 to 22 mm in diameter and 19.13 mm in height. This is in contrast to the seed parent '7-26', wherein the fruit size is considered large, and the pollen parent 'EB 8-30', wherein the fruit size is only considered medium to large. Fruit size of the closest known variety 'EB 8-46' is also considered large to very large.

Average weight of fruit.—2.5 grams.

Average fruit production.—6-8 kilograms on a three-year-old bush.

Berry shape.—Considered round.

Sweetness when ripe.—Considered medium for the species.

Firmness when ripe.—Considered medium for the species. This is comparable to the seed parent '7-26', wherein the fruit firmness is also considered medium. This is in contrast to the pollen parent 'EB 8-30', wherein the fruit is considered firm. This is in further contrast to the closest known variety 'EB 8-46', wherein the fruit is considered firm to very firm.

Acidity when ripe.—Considered medium for the species. This is in contrast to the seed parent '7-26', the pollen parent 'EB 8-30', and the closest known variety 'EB 8-46', wherein the fruit acidity of each is considered low.

Cluster density.—Considered medium to dense for the species.

Storability of fruit.—Considered excellent for the species.

Market use of fruit.—1st grade fresh market fruit.

Date of bud burst.—This variety is evergreen.

Date of vegetative bud burst.—Early August under the ecological conditions prevailing in Yanchep, Western Australia.

Date of bloom time.—May/June under the ecological conditions prevailing in Yanchep, Western Australia, also considered early on one-year old shoot in like manner to the commercial variety 'Weymouth' (unpatented).

Duration of bloom time and bloom intensity.—12 weeks; bloom intensity is considered medium.

Beginning of fruit ripening.—Considered early on one-year-old shoot in like manner to the commercial variety 'Blueray' (unpatented).

First pick date.—August under the ecological conditions prevailing in Yanchep, Western Australia.

Last pick date.—November under the ecological conditions prevailing in Yanchep, Western Australia.

Pollination requirements.—Self-fertile.

Resistance to pests and disease.—No particular resistance noted. The variety has not been tested to detect any resistance.

Although the new variety of blueberry plant possesses the described characteristics when grown under the ecological conditions prevailing in Yanchep, Western Australia, it should be understood that variations are to be expected in the usual magnitude and characteristics incident to changes in growing conditions, fertilization, pruning, pest control, frost, climatic variables, and horticultural management.

Having thus described and illustrated a new variety of blueberry plant, what is claimed to secure a plant letters patent is:

1. A new and distinct variety of blueberry plant, substantially as illustrated and described, which is characterized principally as to novelty by a strong vigor and by producing fruit considered large to very large in size, medium in

acidity, and medium in firmness under the ecological conditions prevailing in Yanchep, Western Australia.

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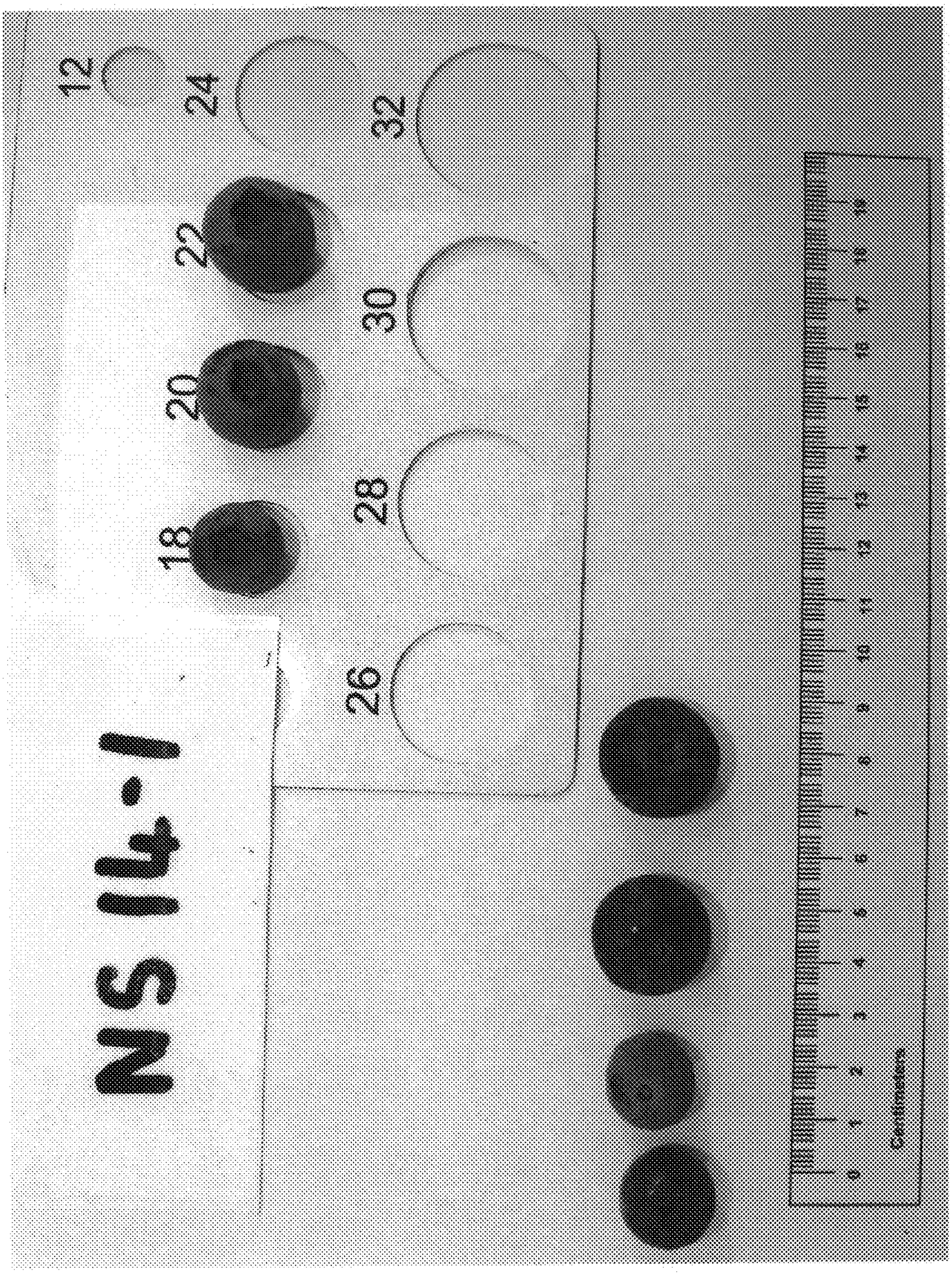

FIG. 1

FIG.2

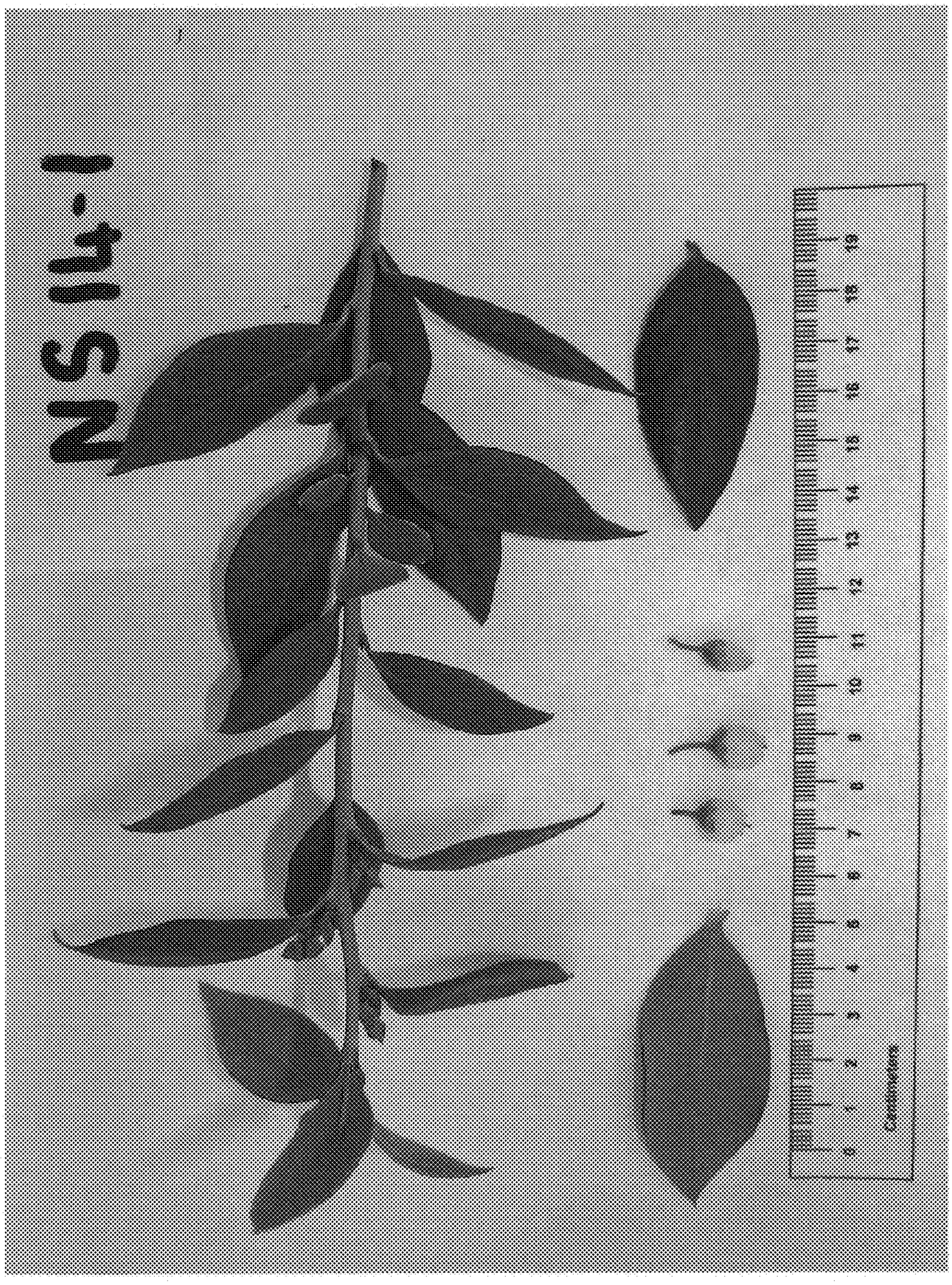

FIG. 3