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(54) JAPANESE HASKAP PLANT NAMED 'KAPU'

- (50) Latin Name: *Lonicera caerulea* ssp. *emphyllocalyx* Varietal Denomination: **Kapu**
- (71) Applicant: **Maxine M. Thompson**, Corvallis, OR (US)
- (72) Inventor: **Maxine M. Thompson**, Corvallis, OR (US)
- (73) Assignee: MAXINE M. THOMPSON TRUST,

Corvallis, OR (US)

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Primary Examiner — Kent L Bell

(74) Attorney, Agent, or Firm — Penny J. Aguirre

(57) ABSTRACT

A new cultivar of Japanese haskap plant, 'Kapu', that is characterized by its very upright and spreading plant habit, its vigorous growth habit, its high fruit yields, its frost tolerant flowers, its fruits that are medium large in size, oval-ovate in shape, very firm, produce little juice, good tasting, suitable for dried fruit production, and maintain their appearance, firmness and taste for at least 4 weeks in cold storage at 33° F. to 35° F., and its little or no disease or pest problems requiring no chemicals for desirable fruit production.

2 Drawing Sheets

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Botanical classification: *Lonicera caerulea* ssp. *emphyllo-calyx*.

Variety denomination: 'Kapu'.

CROSS REFERENCE TO RELATED APPLICATIONS

This application is co-pending with U.S. Plant Patent Applications filed for 3 plants derived from the same breeding program that are entitled Japanese haskap Plant Named ¹⁰ 'Taka' (U.S. Plant patent application Ser. No. 14/121,251), Japanese haskap Plant Named 'Tana' (U.S. Plant patent application Ser. No. 14/121,254), and Japanese haskap Plant Named 'Keiko' (U.S. Plant patent application Ser. No. 14/121,242).

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Lonicera caerulea* ssp. *emphyllocalyx* and will be referred to hereafter by its cultivar name, 'Kapu'. 'Kapu' is a new cultivar of Japanese blue honeysuckle berry, also known as Japanese haskap, a plant grown for its fruit that is marketed as fresh fruit, dried fruit and processed food products.

The new Invention arose from an ongoing controlled breeding program that initiated in 2001 in Corvallis, Oreg. with the planting of seeds collected in 2000 from several berry farms in Hokkaido, Japan. The objectives of the breeding program are to develop superior cultivars of this early ripening berry plant that could be grown in moderate to colder climates combined with an upright spreading plant habit and fruit that were large in size, firm, easy to pick, good tasting, and with a high yield rate.

This new Japanese haskap cultivar, 'Kapu', arose from 35 seed collected from open pollination of an unnamed Japanese haskap plant designated as "selection #8" that was growing

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on a farm in Bibai, Japan. 'Kapu' was selected in Corvallis, Oreg. as a single unique plant in 2004 from the population of resulting seedlings.

Asexual propagation of the new cultivar was first accomplished by the Inventor by hardwood stem cuttings in 2004 in Corvallis, Oreg. Asexual propagation by hardwood and softwood cuttings has determined that the characteristics of the new cultivar are stable and are reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

The following traits have been repeatedly observed and represent the characteristics of the new cultivar as grown outdoors in a trial plot for nine years in Corvallis, Oreg. These attributes in combination distinguish 'Kapu' as a unique cultivar of Japanese haskap.

- 1. 'Kapu' exhibits a very upright and spreading plant habit.
- 2. 'Kapu' exhibits a vigorous growth habit.
- 3. 'Kapu' exhibits high fruit yields.
- 4. 'Kapu' exhibits frost tolerant flowers and can be grown in regions prone to spring frosts.
- 5. 'Kapu' exhibits fruits that are medium large in size, oval-ovate in shape, very firm, produce little juice, and good tasting.
- 6. 'Kapu' exhibits fruit that is suitable for dried fruit production.
- 7. 'Kapu' exhibits fruit that maintain their appearance, firmness and taste for at least 4 weeks in cold storage at 33° F. to 35° F.
- 8. 'Kapu' has shown little or no disease or pest problems and requires no chemicals for desirable fruit production.

The Inventor has no records on the characteristics of the female parent, selection #8. 'Kapu' can be most closely compared to the cultivar 'Yufutsu' (not patented) and to cultivars from the same breeding program; 'Keiko', 'Taka', and

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'Tana'. 'Yufutsu' differs from 'Kapu' in having a denser and low spreading plant habit (wider than tall) and in having berries that are smaller, oblong in shape, less firm, more juicy, and with a lower BRIX. 'Keiko' differs from 'Kapu' in having a less upright plant habit and fruit that is oval in shape, and 5 slightly juicier and less firm. 'Taka' differs from 'Kapu' in having a less upright plant habit and fruit that is cylindrical in shape, slightly juicier, and less firm. 'Tana' differs from 'Kapu' in having a less upright plant habit and fruit that is oval in shape, slightly juicier, and less firm. 'Kapu' can also be 10 compared to typical plants of related Russian honeyberries; Lonicera caerulea ssp. edulis and Lonicera caerulea ssp. kamtchatica. One of the main differences is that these species are adapted only to regions with very cold winters, whereas Japanese haskap thrive in milder climates as well as in colder 15 regions. In Oregon, Russian honeyberries bloom about one month before Japanese haskap, before there are bees out for pollination and consequently have low or no fruit yields.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying colored photographs were taken in mid summer and illustrate the overall appearance and distinct characteristics of 9 year-old plants of the new Japanese haskap as grown in a trial garden in Corvallis, Oreg.

The photograph in FIG. 1 provides a view of the plant habit of 'Kapu'.

The photograph in FIG. 2 provides a close-up view of the flowers of 'Kapu'.

The photograph in FIG. 3 provides a close-up view of the 30 leaves of 'Kapu'.

The photograph in FIG. 4 provides a view of the berries of 'Kapu'.

The colors in the photographs may differ slightly from the color values cited in the detailed botanical description, which 35 accurately describe the colors of the new Japanese haskap.

DETAILED BOTANICAL DESCRIPTION

The following is a detailed description of 9 year-old plants of the new Japanese haskap as field grown at the Inventor's farm in Corvallis, Oreg. under irrigation. The phenotype of the new cultivar may vary with variations in environmental, climatic, and cultural conditions, as it has not been tested under all possible environmental conditions. The color determination is in accordance with The 1995 R.H.S. Colour Chart of The Royal Horticultural Society, London, England, except where general color terms of ordinary dictionary significance are used.

General description:

Plant type.—Deciduous shrub, fruit bearing.

Plant habit.—Very upright and spreading.

Plant size.—Reaches an average of 1.75 m in height and 1.25 m in width.

Cold hardiness.—Has not been tested, other plants of 55 the species have been observed to be hardy in U.S.D.A. Zone 2.

Diseases and pests.—Minor damage from Botrytis sp. has been observed in some years, no significant pest problems have been observed, no chemicals are 60 required for good growth and fruit production.

Root description.—Fibrous.

Propagation.—Softwood and hardwood stem cuttings. Dormant shoots:

Density.—Medium.

New growth.—144B in color, and surface glabrous

One year-old shoots.—Average of 20 shoots, 38 cm in length and 4 mm in diameter at mid shoot, surface is smooth and glabrous, 177A in color.

Three year-old shoots.—Average of 15 shoots, 1.2 m in length and 1.25 cm in diameter at mid-shoot, surface exfoliating, inner bark 177C in color, outer bark 201A in color.

Foliage description:

Leaf shape.—Elliptic.

Leaf division.—Simple.

Leaf base.—Round.

Leaf apex.—Broadly acute.

Leaf venation.—Pinnate, upper surface 138C in color, lower surface 138C in color.

Leaf margins.—Entire.

Leaf arrangement.—Opposite.

Leaf attachment.—Petiolate.

Leaf surface.—Young leaf; upper surface glabrous and lower surface with sparse amount of pubescence, especially along midrib and lateral veins, mature leaf both upper and lower surface glabrous.

Leaf internode length.—An average of 4.8 cm.

Leaf size.—Average of 6.8 cm in length and 3.5 cm in width.

Leaf color.—Young leaves; upper surface 144B and lower surface 144B, mature leaves; upper surface 137B and lower surface 138B.

Petioles.—Up to 4 mm in length and 2 mm in width, 138C in color, glabrous surface.

Stipules.—2 to 4 mm in length and auriculate in shape, 177A in color, glabrous surface.

Inflorescence description:

Blooming period.—50% anthesis is on average April 12th in Corvallis, Oreg., blooms approximately 26 days.

Inflorescence type.—Small 2-flowered cymule born in leaf axils of lowest 1 to 3 nodes on current years' growth.

Inflorescence size.—An average of 2.4 cm in length and 1.4 cm diameter.

Flower buds.—Mixed buds, flower buds are not visible as they are enclosed within the leaves.

Flower fragrance.—None.

Lastingness of inflorescence.—26 days.

Flower quantity.—On current year's shoots, there was an average of 3.6 per shoot.

Flower type.—Epigynous.

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Corolla form.—Funnel form, narrow at the base and widening towards apex, 5-lobed.

Flower size.—Length from base of ovary to stigma is 2.4 cm; average width is 5 mm.

Peduncles.—2 to 7 mm in length, 2 mm in diameter, 136C in color, glabrous surface.

Pedicels.—Inconspicuous.

Bracts.—2, present at base of ovaries, linear to broadly lanceolate in shape, 137B in color, glabrous surface, cuspidate apex, cuneate base, 2 to 8 mm in width and 1.2 to 2.2 cm in length.

Sepals.—None present.

Petals.—5, fused into tube with apex of each free, 2 to 2.5 mm in diameter at the base, 7 to 8 mm in diameter at apex and 1.4 to 1.6 cm in length: tube portion is an average of 1.2 cm in length and 5 mm in width at midpoint, free portion is an average of 3 mm in length and 3 mm in width, free petal portions have a rounded

apex and entire margins, outer and inner surface of tube and free portions are 2C in color and have a pilose surface.

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Reproductive organs:

Gynoecium.—1 pistil, an average of 2.4 cm in length with style 1.9 cm and extending to 4 to 5 mm beyond corolla, 2D in color, stigma is about 1.5 mm in diameter and 2D in color, ovary is inferior, oval in shape, 4 to 5 mm in length, 2 mm in diameter and 136C in color.

Androecium.—5 stamens, about 7 mm in length, adnate to inner surface of corolla tube, filaments are 2C in color and about 6 mm in length, anthers are 18A in color, pollen is very abundant in quantity and 3A in color with 98% acetocarmine stain.

Compatibility.—Self-incompatible.

Fruit description:

Fruit development.—70 days from mid-bloom to harvest.

Harvest date.—Average of June 21st in Corvallis, Oreg. Fruit type.—True berry, consists of 2 ovaries enclosed in fleshy bracts.

Fruit shape.—Oval to ovate.

Fruit size.—(Medium large), an average of 2.2 cm in length and 1.6 cm in width.

Fruit surface.—Smooth with heavy bloom.

Fruit apex.—Rounded to broadly acute.

Fruit skin color.—103A with bloom removed, 188D with bloom.

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Fruit flesh color.—138D.

Fruit firmness.—Very firm.

Fruit BRIX.—14.4°.

Fruit juiciness.—Relatively low.

Fruit weight.—An average of 1.8 g (average of 25 berries).

Peduncle.—3 to 6 mm in length.

Pedicel-berry scar.—Very small, dry.

Fruit attachment strength.—Medium; strong enough to avoid pre-harvest drop and loose enough to pick without tearing berry flesh.

Pre-harvest drop.—Insignificant.

Post-harvest.—Berries maintain their appearance, firmness and taste for at least 4 weeks in cold storage at 33° F. to 35° F.

Market uses.—Fresh, frozen, dried, and particularly suited for processed products.

Seed.—Average of 16 seeds per fruit (average of 25 fruits) with a potential of 22, dried seeds; lenticular in shape, dry weight size is 168 mg/100 seeds, 177D in color.

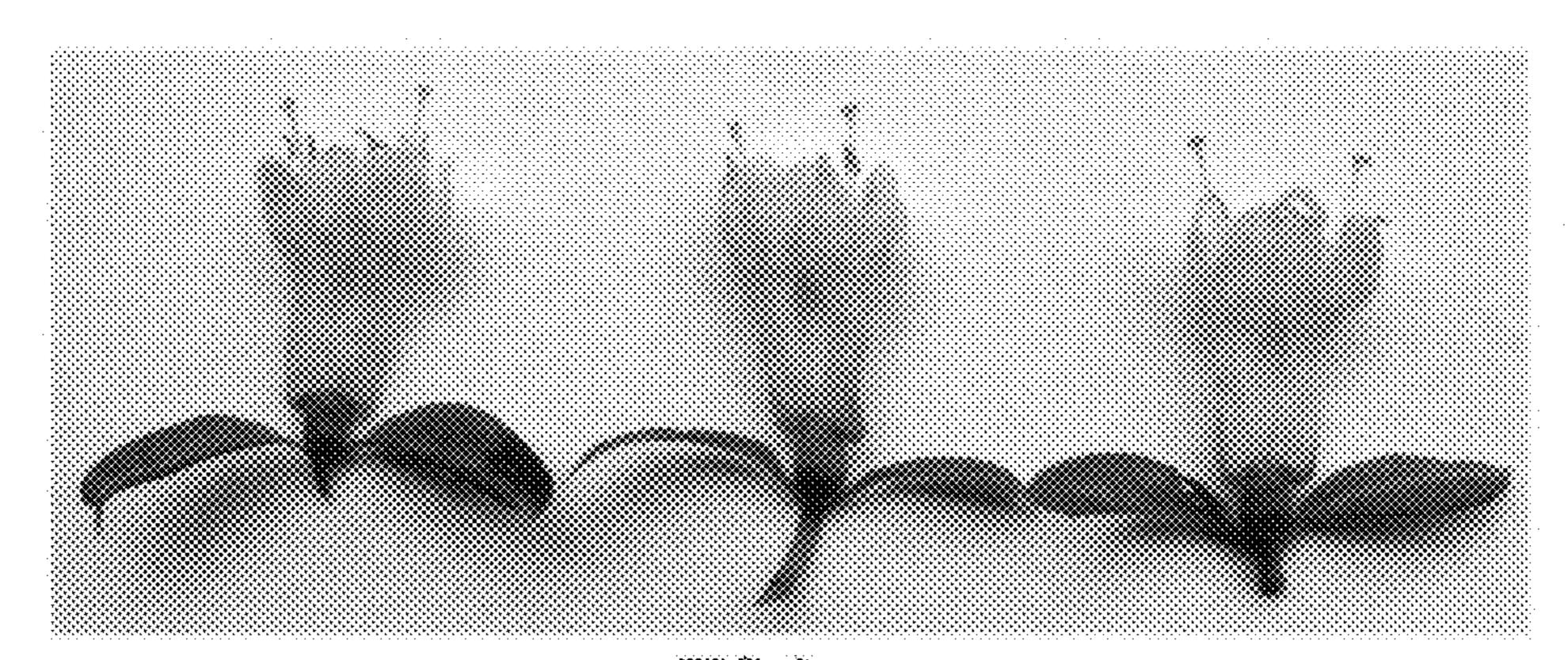
It is claimed:

1. A new and distinct cultivar of Japanese haskap plant named 'Kapu' as herein illustrated and described.

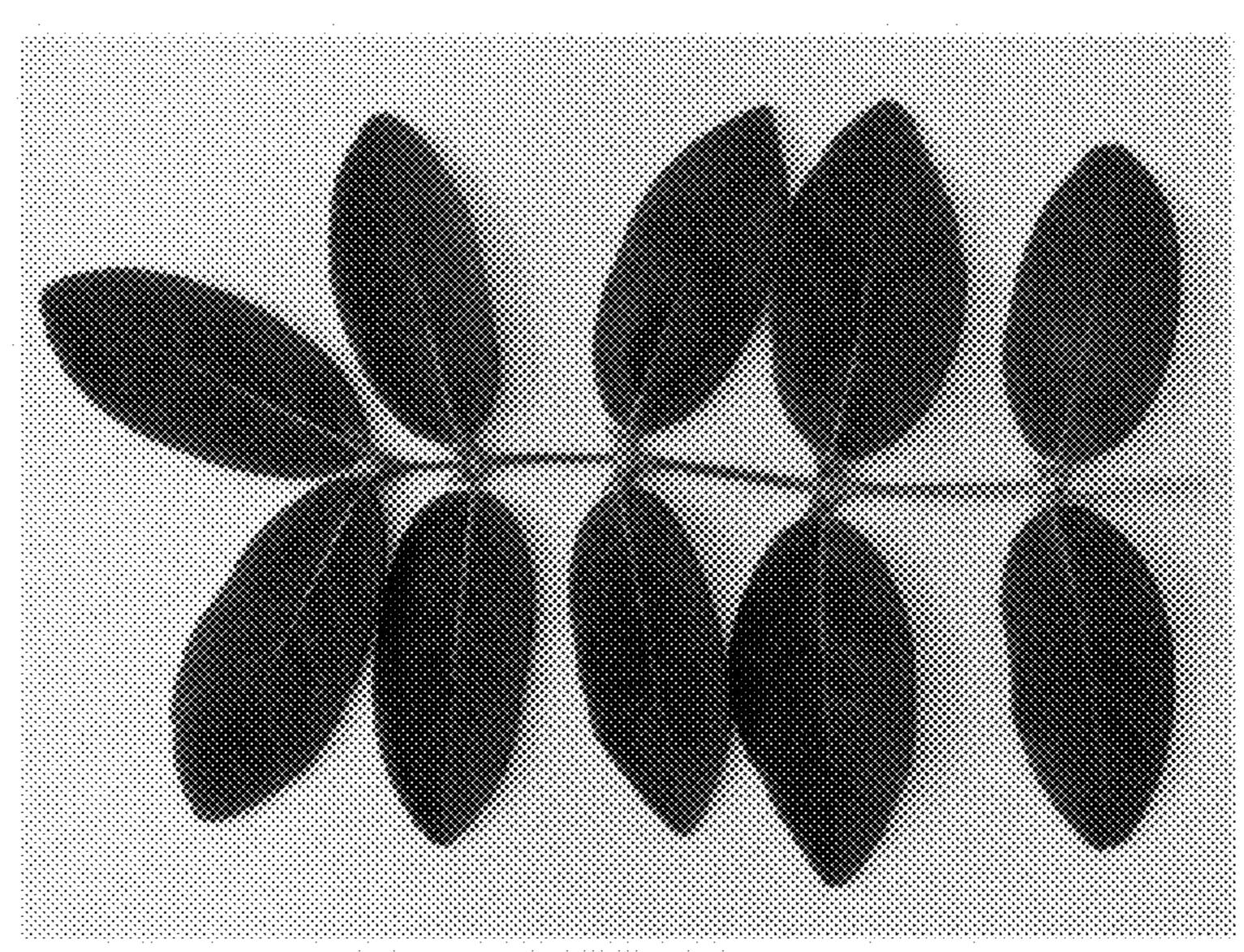
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FIG. 1



¥1G. 2



F14.3



FIG. 4