



US00PP10030P

United States Patent [19]
Bridgen et al.

[11] Patent Number: Plant 10,030
[45] Date of Patent: Sep. 16, 1997

- [1] **ALSTROEMERIA PLANT NAMED 'SWEET LAURA'**
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- [1] Appl. No.: **573,201**
- [2] Filed: **Dec. 15, 1995**
- [1] **Int. Cl.⁶** **A01H 5/00**
- [2] **U.S. Cl.** **Plt./87.1**
- [3] **Field of Search** **Plt./87.1**

[5] **References Cited**
PUBLICATIONS
Bridgen, C.H. and Bailey, E.Z., *Hortus Third*, p. 62, Macmillan Publishing, N.Y. (1976).
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[57] **ABSTRACT**

This new and distinct cultivar of *Alstroemeria* named 'Sweet Laura' is characterized by its unique features of sweet fragrance, yellow flower color, vigorous growth, cold tolerance, and strong, upright floral stems. It is the first commercial *Alstroemeria* plant with fragrant flowers. The three outer tepals of the flowers are yellow with an orangish-red color at the tips that often emanates throughout the length of the tepals; the extreme tips of these tepals are green. The three inner tepals are also yellow, but their orangish-red region is absent or restricted to the extreme tip. The inner tepals also have narrow, longitudinal light brown streaks that radiate from the base to the tip. The streaking occurs with less frequency on the lower tepal. The plant is also distinguished by its long (80 to 85 cm), strong flowering stems with narrow long-lasting dark green leaves and its upright and vigorous growth habit. There is a continuous production of flowers on its umbel arrangement of inflorescences throughout its blooming season.

1 Drawing Sheet

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SUMMARY OF THE INVENTION

This new and distinct cultivar of the botanical genus *Alstroemeria* (Lily-of-the-Incas, Peruvian Lily, or Inca Lily) is a product of our *Alstroemeria* breeding program at the University of Connecticut in Storrs, Conn. The primary objective of this breeding program was the creation of new *Alstroemeria* cultivars for cut flowers, pot production and garden cultivation. This *Alstroemeria* plant originated from embryo culture, designated as 0C1204, resulting from crosses of species selected from breeding stock at the University of Connecticut and Coast Alpine Nursery, Lummi Island, Wash.

This plant was selected for propagation because of its distinctive flower fragrance, yellow flower color, continuous flowering and strong, upright flower stems. Asexual propagation of this new plant by rhizome division was carried on under our direction at the University of Connecticut; successive generations of this plant have demonstrated that the distinctive characteristics of the plant hold true from generation to generation and appear to be firmly fixed. Micropropagation and traditional asexual propagation by rhizome division of this new cultivar is now being carried on at the University of Connecticut.

This cultivar has been observed in the greenhouse and in the field for several years but has not been observed under possible environmental conditions. The phenotype may vary with variations in environment such as light intensity, temperature, nutrition and daylength.

BRIEF DESCRIPTION OF THE DRAWING

This new cultivar of *Alstroemeria* plant is illustrated by the accompanying photographic drawing in full color showing three blooms from an umbel of the plant. The color conditions are believed to be as close to the specified colors as possible to obtain by conventional photographic procedures.

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DETAILED DESCRIPTION OF THE NEW VARIETY

The following is a detailed description of our new *Alstroemeria* plant with color designations according to the R.H.S. Colour Chart of The Royal Horticultural Society of London, England. The following observation, measurements, and comparisons describe plants grown in Storrs, Conn. under greenhouse conditions and field conditions in full sun.

The Plant

Origin: Seedling derived from ovule cultured hybrid embryos.

Parentage:
Seed parent.—*Alstroemeria aurea*.
Pollen parent.—*Alstroemeria caryophyllaea*.

Classification:
Botanic.—*Alstroemeria* hybrid L.
Commercial.—*Alstroemeria*; Lily-of-the-Incas; Inca Lily; Peruvian Lily.

Form: Herbaceous plant arising from an underground rhizome and having long, strong, and upright growing floral stems with flower-bearing cymes of umbel-like form at its top.

Height: Approximately 80 to 85 cm.

Growth: Strong and upright.

Root stock: Tuberous.

Foliage:
Quantity.—Many.
Number of leaves.—Average of 27 leaves per vegetative stem. Average of 15 leaves per floral stem.
Size of leaf.—Vegetative stem: 10 cm (length)×2.2 cm (diameter at the widest point). Floral stem: 10 cm (length)×1.8 cm (diameter at the widest point).
Leaf shape.—Simple, linear, resupinate leaves with parallel venation that are arranged alternately; the shape of the leaves is elongated elliptic with extended bases and broadly acuminate apices; leaf margins are entire.

Texture.—Glabrous leaf surface.

Color.—Dark green (137 A) on both upper and under sides.

Vegetative stem length: 70 to 75 cm.

Rhizomes:

Color.—White.

The Bud

Form: Pear shaped becoming long and more pointed just before opening.

Size:

Diameter.—Approximately 0.9 to 1 cm before opening.

Length.—Approximately 2.5 to 2.8 cm before opening.

Calyx: This plant's flower bud has no separate calyx and corolla; the six tepals of the flower are a perianth and divide simultaneously.

Opening rate: Normal.

Peduncle:

Length.—3.7 to 4.2 cm. (primary floret).

Color.—Green turning dark green/yellow as it reaches anthesis.

The Flower

Blooming habit: Continuous and profuse after flower initiation.

Flower size: Medium.

Diameter.—Approximately 4.0–4.5 cm.

Depth.—Approximately 4.0–4.5 cm.

Number of florets/inflorescence: Average 7.

Borne: Singly.

Shape: Flowers are zygomorphic, protandrous, and epigynous with inferior ovaries; flowers arise in a terminal bracted umbel of cymes. Mature blooms are funnel-shaped with repel tips curling slightly outward.

Petalage:

Number of petals.—Six tepals.

Arrangement.—Two concentric circles of three tepals each.

Form.—The three outer tepals are spatulate with emarginate to mucronate apices that pinch together. The extreme outer 1–2 mm tip is greenish. The three inner tepals are oblanceolate-spatulate but are more narrow than the 3 outer tepals and have apiculate apices.

Texture.—Leathery.

Appearance.—Shiny.

Color of petals.—Outer Tepals: Yellow Color 12 A-B.

Distal portions of each apex is orange-red 31 A with various degrees of gradation of this color emanating down the central parts of the two lower tepals, and to some extent, the upper tepal. The spread of the orange-red color becomes most intense under high light intensities. In most cases there are no spots or streaks in the outer tepals. When florets first open, there is a slight green color (151 A) down the center of the tepals that changes to yellow or remains to a slight extent on the perimeter of the orange-red region. The extreme apex is light green (137 D). Inner Tepals: Yellow 12 A-B becoming most intense as the flower ages. There are numerous light brown/red (53A/59 A) narrow, longitudinal streaks radiating throughout from base to tip. The streaks are less frequent on the lower tepal. The orangish-red (31 A) region is absent or restricted to the extreme apex.

Peduncle:

Length.—3.7 to 4.2 cm.

Color.—Green.

Persistence: Tepals fall off at senescence.

Fragrance: Sweet.

Lasting quality:

On plant.—15 to 22 days.

As a cut flower.—8 to 12 days in water.

Main stem or stalk:

Length.—80 to 85 cm.

Character.—Strong and upright.

Number of leaves: Average of 15 leaves per floral stem.

Size of leaves on floral stem:

Length.—10–12 cm.

Width.—1.5–1.8 cm at widest point.

Reproductive Organs

Stamens:

Number.—Six.

Arrangement.—One opposite each tepal.

Anthers:

Size.—7 mm (length)×2 mm (width).

Color.—Orange-red (31A).

Filaments:

Length.—Approximately 4 cm.

Color.—Orange-red.

Pistils:

Number.—One.

Length.—4 to 4.3 cm.

Color.—Yellow stigma, orange-red style.

Stigma:

Color.—Yellow.

The Fruit

Fertility: Sterile diploid (2n=2x=16).

Shape: Capsular.

Color at Maturity: Dark green.

This plant of *Alstroemeria* is characterized by its unique features of sweet fragrance, yellow flower color, vigorous growth, cold tolerance, and strong, upright floral stems. This plant is known to be hardy in USDA Zone 5 and has been grown in Zone 4. To the best of our knowledge, this is the first commercial *Alstroemeria* plant with fragrant flowers and does not closely resemble that of any other previously known to us. The three outer tepals of the flowers are yellow with an orangish-red color at the tips that often emanates throughout the length of the tepals; the extreme tips of these tepals are green. The three inner tepals are also yellow, but their orangish-red region is absent or restricted to the extreme tip. The inner tepals also have narrow, longitudinal light brown streaks that radiate from the base to the tip. The streaking occurs with less frequency on the lower tepal. The plant is also distinguished by its long (80 to 85 cm), strong flowering stems with narrow long-lasting dark green leaves and its upright and vigorous growth habit. There is a continuous production of flowers on its umbel arrangement of inflorescences throughout its blooming season. This plant will flower continuously in a greenhouse environment if given cool rhizome temperatures (50°–65° F.), long photoperiods and high light intensities. When grown outside in USDA Zone 5, 'Sweet Laura' plants will begin to flower in June and will flower continuously until the plants freeze.

We claim:

1. A new and distinctive *Alstroemeria* plant substantially as shown herein and described, distinguished by its sweet fragrance, unique flower color, strong and upright growth habit, long floral stems, narrow dark green leaves and continuous flowering habit.

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