

[54] ALSTROEMERIA PLANT NAMED ALICIA

[57] ABSTRACT

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An Alstroemeria plant named Alicia, characterized by its ability to be photoperiodically controlled for fall and winter production, relatively few non-flowering stems, ease of propagation, red-purple flower color, with the upper two petals having grayed-purple streaks and an intermediate yellow patch against a white background, and by its post-harvest color retention of approximately fourteen days.

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1 Drawing Sheet

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The present invention relates to a new and distinct cultivar of Alstroemeria plant hereinafter referred to by the cultivar name Alicia.

Alicia is a product of a planned breeding program which had the primary objectives of creating new Alstroemeria cultivars having unique flower color and being capable of early winter production with low maintenance requirements. The latter term refers to the production of a minimum of non-flowering stems. Such traits in combination were not present in previously available commercial cultivars.

In order to fully understand an important characteristic of the new cultivar, an explanation of typical current winter production schedules for cut flowers of Alstroemerias would be helpful. Standard industry growing practices normally utilize only natural daylight. As a result, late fall and winter production of Alstroemeria cut flowers, due to reduced levels of light during these periods, typically requires 12 weeks or more of growing time from the planting of the rhizome cutting to the initiation of flowering. Even more time is required for further flowering to produce a stem ready to sale. With certain varieties, the period of time from planting to flowering can extend up to almost six months. This time will substantially vary from variety to variety, and growing techniques and conditions also affect the growing period. For example, a larger cutting will obviously require a shorter growing time than a relatively small cutting. High temperatures normally have an adverse affect on growth, as does reduced light.

The commercial implications of relatively slow growth characteristics under natural light conditions should be obvious. Increased bench or field time (if grown outdoors where climates permit) substantially increases production costs, which in turn result in increased costs per stem due to the increased cost of production. Total production of Alstroemeria cut flowers during such period is also corresponding less. This adversely affects the normal supply/demand ratio in the marketplace, and as a result cut flowers of Alstroemeria are substantially more costly during the winter months than during the periods beginning in March when production increases. It is not unusual for stem prices to be 50% higher during the winter months of December, January, and February.

The inventor has discovered that through photoperiodic growth practices, certain cultivars can be brought into flowering in the late fall and winter periods in substantially reduced periods of time, thereby increas-

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ing production during these periods. However, all cultivars are not adaptable to photoperiodic control.

Through extensive breeding, the inventor has been able to produce new Alstroemeria cultivars, of which Alicia is one, specifically adaptable to photoperiodic control. The inventor's preferred growing technique includes growing the newly stuck plants under natural light conditions for approximately one month without light supplement. After approximately one month, the day length is effectively increased by providing four hours of artificial lighting by techniques or methods well known in the industry.

A preferred growing regimen which has provided excellent results comprises planting established rhizome divisions in ground beds near the end of August or first of September. Beginning approximately one month after planting, and continuing to April 1, the plants are subjected to light from 2:00 a.m. to 6:00 a.m. daily. A lighting system which has proved highly effective consists of 135 watt bulbs spaced very 10 feet, and hung approximately 7 feet above the ground. The bulbs are positioned in rows that are spaced 12 feet apart.

By effectively increasing the day length by means of artificial lighting, flowering can be initiated in a much shorter time. Within approximately six (6) weeks the first flower appears, and saleable stems are ready from mid-November to mid-December, depending upon the variety. In many instances, flowering is essentially continuous until June when the stems are too short to sell as cuts without heavy shading and some method of cooling. Without shading and cooling to prolong commercial stem production, it is common practice to dig up and divide the plants. The divided plants are then stuck in late August or early September as described, and the cycle repeated. It has also been noted that the increased light regimen has resulted in longer stems, a very desirable quality.

Alicia was originated by the inventor Erwin Mojonnier from a hybridization made in a controlled breeding program in Encinitas, Calif. in 1988. The female parent was a cultivar identified as L9, a light responsive, early production tall plant with a flower having a purple background, streaking on the upper and lower petals, and a faint yellow patch against a white throat on the upper petals. The male parent of Alicia was a cultivar identified as L13, a light responsive, early production tall plant with a flower having a lavender background,

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streaks on the upper and lower petals, and a faint yellow patch against a white throat on the upper petals.

Alicia was discovered and selected as one flowering plant within the progeny of the stated parentage by Erwin Mojonier in May 1988 in a controlled environment in Encinitas, Calif.

The first act of asexual reproduction of Alicia was accomplished when vegetative cuttings were taken from the initial selection in August 1988 in a controlled environment in Encinitas, Calif. by Erwin Mojonier. Horticultural examination of selected units initiated in 1989 has demonstrated that the combination of characteristics as herein disclosed for Alicia are firmly fixed and retained through successive generations of asexual reproduction.

Alicia has not been observed under all possible environmental conditions. The phenotype may vary significantly with variations in environment such as temperature, light intensity and day length. The following observations, measurements and comparisons describe plants grown in Encinitas, Calif. under greenhouse conditions which approximate those generally used in commercial practice.

The following traits have been repeatedly observed and are determined to be basic characteristics of Alicia, which in combination distinguish this Alstroemeria as a new and distinct cultivar:

1. Low maintenance, with few non-flowering stems produced per plant.

2. Alicia is responsive to increased light for initiating flowering. By effectively increasing day length by artificial light in optimum amounts, the first flower appears approximately six weeks after rhizome planting, and saleable stems in full flower are ready by early to mid-December. Thus, winter production can begin relatively early and, through photoperiodic control, continue throughout the winter period. Production can therefore be effectively staggered continuously through winter periods of low natural light.

3. Alicia is easily propagated from rhizomes.

4. The upper two petals of the flowers of Alicia have a red-purple main color, grayed-purple streaks or markings, an intermediate yellow patch and white background, green tips.

5. Alicia possesses good post-harvest color retention of approximately 14 days.

The accompanying color photographic drawing shows typical inflorescence and foliage characteristics of Alicia, with colors being as nearly true as possible with illustrations of this type. The photograph is an enlarged closeup of an open flower of Alicia. The flower parts and colors referred to below are clearly shown in the photograph, except for the upper surface of the petals. The color illustrated for the upper surface is somewhat lighter than the true color which is accurately identified below by color value.

In the following description, color references are made to the Royal Horticultural Society Colour Chart (R.H.S.). The color values were determined between

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9:15 and 10:00 a.m. on Apr. 6, 1990 under 500 foot candles of light intensity at Encinitas, Calif.

Classification: Alstroemeria cv. Alicia.

5 Commercial: Alstroemeria.

PLANT:

Form: Cut flower.

Height: Approximately 108 cm. at time of production.

10 Propagation: Originates from rhizome.

Growth habit: Excellent.

Foliage:

Quantity.—Approximately 20 leaves per stem.

Size of leaf.—Approximately 12.4 cm. x 3.0 cm.

15 Shape of leaf.—Lanceolate.

Color.—Upper side, green 139A; under side green 138A.

Rhizomes:

Color.—White, 155B.

20 Size.—Approximately 1 cm. x 1 cm. at growing tip.

INFLORESCENCE

Bud:

Form.—Indeterminate.

Diameter.—1.5 cm.

Length.—4.3 cm.

Calyx.—6 mm.

Peduncle.—Approximately 4 cm. long.

Color.—Green, 139C.

30 Flower:

Size.—Approximately 5.2 cm. in total diameter.

Borne.—4-5 flowers per umbel.

Blooming habit.—Begins flowering six weeks after rhizome planting around September 1; saleable flowering stems are ready by mid-December.

35 Shape.—Asymmetrical.

Color.—Generally, the upper two petals are heavily streaked, with fewer streaks found on the lower petal. A faint yellow patch is present on the upper petals, against a white background. The underside of the sepal tips are green. Upper surface: Red-purple 72B. Under surface: Red-purple 71D. Other notations: Streaks: Grayed-purple 187A. Yellow patch: Yellow 4A. White background: 155C. Green tip: Green 143A.

Peduncle.—Length, 9.8 cm.; color, green 139C.

Lasting quality.—Cut flowers last 14 days following cutting.

REPRODUCTIVE ORGANS

Stamens: Number, 6.

Anthers: Color, grayed-green 198B.

Filaments: Color, red-purple 70C.

Pistils: Number, 1; color, red-purple 70C.

55 Stigma: Color, red-purple 70C.

I claim:

1. A new and distinct cultivar of Alstroemeria plant named Alicia, as illustrated and described.

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