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Hooijman

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(54) ***ASTER* PLANT NAMED 'ESMCHILE'**

(50) Latin Name: ***Aster hybrida***
Varietal Denomination: **Esmchile**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 38 days.

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(58) **Field of Search** Plt./355

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(57) **ABSTRACT**

A new and distinct cultivar of cut flower *Aster* plant named 'Esmchile', characterized by its tall, strong and erect flowering stems; symmetrical branching habit with long lateral branches; dark green-colored foliage; uniform and freely flowering habit; daisy-type inflorescences with red purple-colored ray florets; and good postproduction longevity.

2 Drawing Sheets

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Botanical classification/cultivar designation: *Aster hybrida* cultivar Esmchile.

BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of cut flower *Aster* plant, botanically known as *Aster hybrida* and hereinafter referred to by the name 'Esmchile'.

The new *Aster* is a product of a planned breeding program conducted by the Inventor in El Quinche, Pichincha, Ecuador. The objective of the breeding program is to create new cut flower *Aster* cultivars with durable leaves, strong stems, desirable floret colors and good postproduction longevity.

The new *Aster* originated from a cross-pollination made by the Inventor in El Quinche, Pichincha, Ecuador in August, 1999, of a proprietary *Aster* selection identified as Line 02, not patented, as the female, or seed, parent with an unknown *Aster* selection, not patented, as the male, or pollen, parent. The new *Aster* was discovered and selected by the Inventor as a single flowering plant within the progeny of the stated cross-pollination grown in a controlled environment in El Quinche, Pichincha, Ecuador. The selection of this plant was based on its durable foliage, strong stems and desirable inflorescence form and attractive ray floret color.

Asexual reproduction of the new *Aster* by vegetative tip cuttings was first conducted in El Quinche, Pichincha, Ecuador in November, 2000. Asexual reproduction by cuttings has shown that the unique features of this new *Aster* are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

The cultivar Esmchile has not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature, daylength, and/or light level, without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Esmchile'. These characteristics in combination distinguish 'Esmchile' as a new and distinct cut flower *Aster:*

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1. Tall, strong and erect flowering stems.
2. Symmetrical branching habit with long lateral branches.
3. Dark green-colored foliage.
4. Uniform and freely flowering habit.
5. Daisy-type inflorescences with red purple-colored ray florets.
6. Good postproduction longevity.

Plants of the new *Aster* can be compared to plants of the female parent selection. Plants of the new *Aster* differ from plants of the female parent selection primarily in plant height as plants of the new *Aster* are taller than plants of the female parent selection.

Plants of the new *Aster* can be compared to plants of the cultivar Cirina, not patented. In side-by-side comparisons conducted in El Quinche, Pichincha, Ecuador plants of the new *Aster* differed from plants of the cultivar Cirina in the following characteristics:

1. Plants of the new *Aster* were not as tall as plants of the cultivar Cirina.
2. Plants of the new *Aster* had shorter leaves than plants of the cultivar Cirina.
3. Plants of the new *Aster* were more freely flowering than plants of the cultivar Cirina.
4. Inflorescences of plants of the new *Aster* had more ray florets than inflorescences of plants of the cultivar Cirina.
5. Plants of the new *Aster* and the cultivar Cirina differed in ray floret coloration as plants of the cultivar Cirina had purple-colored ray florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new *Aster* showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ from the color values cited in the detailed botanical description which accurately describe the colors of the new *Aster.*

The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'Esmchile'.

The photograph on the second sheet are close-up views of a typical inflorescence of 'Esmchile' (left) and a typical inflorescence of 'Cirina' (left).

DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2001 Edition, except where general terms of ordinary dictionary significance are used. The aforementioned photographs, following observations and measurements describe plants grown and flowered during the fall and winter in El Quinche, Pichincha, Ecuador, in an outdoor nursery and under conditions which approximate those generally used in commercial cut flower *Aster* production. During the production of these plants, day temperatures ranged from 12 to 30° C. and night temperatures ranged from 5 to 12° C. Plants were about four to six months from planting rooted young plants when the photographs and the botanical description were taken.

Botanical classification: *Aster hybrida* cultivar Esmchile.

Parentage:

Female, or seed, parent.—Proprietary *Aster hybrida* selection identified as Line 02, not patented.

Male, or pollen, parent.—Unknown *Aster hybrida* selection, not patented.

Propagation:

Type.—Terminal vegetative cuttings.

Time to initiate roots.—About 12 to 16 days at 17 to 25° C.

Time to produce a rooted young plant.—About 21 to 25 days at 17 to 25° C.

Root description.—Fine, fibrous; 162D to 161D in color.

Rooting habit.—Freely branching.

Plant description:

Appearance.—Herbaceous daisy-type cut flower *Aster*. Flowering stems upright and strong. Vigorous. Symmetrical branching habit with long lateral branches.

Plant height.—About 105 cm.

Plant width.—About 28 cm.

Lateral branches.—Quantity per plant: About 21. Length: About 58 cm. Diameter: About 3.3 mm. Internode length: About 2.8 cm. Strength: Strong. Texture: Smooth; initially pubescent, becoming glabrous with development; waxy. Color: Between 144A and 145B.

Foliage description.—Arrangement: Alternate, simple; sessile. Length: About 9.9 cm. Width: About 1.4 cm. Shape: Linear. Apex: Acute. Base: Cordate. Margin: Finely serrate. Texture, upper and lower surfaces: Glabrous, smooth; waxy. Color: Developing foliage, upper surface: 147A to 139A. Developing foliage, lower surface: 147A. Fully expanded foliage, upper surface: 137A; venation, 144A to 146C. Fully expanded foliage, lower surface: 137C; venation, 146D.

Inflorescence description:

Appearance.—Daisy-type inflorescence form with narrowly elliptic-shaped ray florets. Inflorescences terminal or axillary. Disc and ray florets develop acropetally on a capitulum. Inflorescences not fragrant. Inflorescences persistent. Inflorescences face mostly upright. Uniform and freely flowering habit.

Flowering response.—Plants flower year-round in Ecuador. Plants begin flowering about 16 to 17 weeks after planting.

Postproduction longevity.—Inflorescences maintain good color and substance for about 10 to 12 days as a cut flower and about 25 days on the plant.

Quantity of inflorescences.—About 17 inflorescences develop per lateral branch.

Inflorescence bud.—Height: About 6 mm. Diameter: About 6 mm. Shape: Nearly globose. Color: 137C to 144A.

Inflorescence size.—Diameter: About 2.6 cm. Depth (height): About 1.1 cm. Diameter of disc: About 1.2 cm. Receptacle height: About 6 mm. Receptacle diameter: About 9 mm.

Ray florets.—Number of ray florets per inflorescence/arrangement: About 44 in arranged in two or three whorls. Length: About 1.5 cm. Width: About 4 mm. Shape: Narrowly elliptic. Apex: Obtuse with emarginations. Base: Attenuate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous; papery. Orientation: Initially upright, then mostly horizontal. Aspect: Mostly straight. Color: When opening, upper surface: 72B to 70A. When opening, lower surface: 70A to 72B. Fully opened, upper surface: 72A to 70A; color becoming closer to 70B with development. Fully opened, lower surface: 72B to 70B.

Disc florets.—Arrangement: Massed at center of receptacle. Number of disc florets per infloresence: About 41. Length: About 9.6 mm. Diameter, apex: About 2.1 mm. Diameter, base: About 0.7 mm. Shape: Tubular, salverform, elongated. Apex: Five lobes; lobes acute. Color, immature: 151B to 153C. Color, mature: Apex: 1A to 3A. Mid-section and base: 145D to 157A.

Phyllaries.—Quantity per inflorescence: About 42. Length: About 5 mm. Width: About 1.5 mm. Shape: Narrowly deltoid. Apex: Acute. Base: Truncate. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper surface: 137C to 145B. Color, lower surface: 137B to 144B.

Peduncles.—Length, terminal peduncle: About 2 mm. Length, fourth peduncle: About 1.5 cm. Length, seventh peduncle: About 2.3 cm. Diameter: About 1 mm. Aspect: Erect to about 21° from vertical. Strength: Strong. Texture: Pubescent. Color: 137C to 137D.

Reproductive organs.—Androecium: Present on disc florets only. Quantity per disc floret: One. Anther shape: Linear. Anther length: About 1.5 mm. Anther color: 7A. Pollen amount: Scarce. Pollen color: 7A. Gynoecium: Present on both ray and disc florets. Quantity per floret: One. Pistil length: About 1.1 cm. Stigma shape: Bilobed; lobes linear. Stigma color: 145B to 150C. Style length: About 6.9 mm. Style color: 149D. Ovary color: 157C.

Seed.—Length: With pappus, about 5 mm; without pappus, about 3 mm. Diameter: About 1 mm. Color: 145D; dried, 199A.

Disease/pest resistance: Resistance to pathogens and pests common to *Asters* has not been observed on plants grown under commercial greenhouse conditions.

Temperature tolerance: Plants of the new *Aster* have been observed to tolerate temperatures from about 7 to about 30° C.

It is claimed:

1. A new and distinct cultivar of cut flower *Aster* plant named 'Esmchile', as illustrated and described.

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