



(12) **United States Plant Patent**
Hooijman

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(54) **GYP SOPHILA PLANT NAMED ‘ESM COLD’**

(50) Latin Name: *Gypsophila hybrida*
Varietal Denomination: **Esm Cold**

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(NL)

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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 393 days.

(21) Appl. No.: **11/903,794**

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(51) **Int. Cl.**
A01H 5/00 (2006.01)

(52) **U.S. Cl.** **Plt./354**

(58) **Field of Classification Search** Plt./354
See application file for complete search history.

(56) **References Cited**

OTHER PUBLICATIONS

Upov Plant Variety Database 2009/05 search for cultivar Esm Cold. p.
1.*

* cited by examiner

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(57) **ABSTRACT**

A new and distinct cultivar of *Gypsophila* plant named ‘Esm
Cold’, characterized by its erect and strong flowering stems;
early, uniform and freely flowering habit; semi-double white-
colored flowers; and good postproduction longevity.

2 Drawing Sheets

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Botanical designation: *Gypsophila hybrida*.

Cultivar denomination: ‘Esm Cold’.

**CROSS-REFERENCED TO RELATED
APPLICATION**

Applicant: Aloysius A. Hooijman.

Title: *Gypsophila* Plant Named ‘Esm Alicia’.

U.S. Plant Patent Application Filed Concurrently.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar
of *Gypsophila* plant, botanically known as *Gypsophila*
hybrida, grown commercially as a cut flower, and hereinafter
referred to by the name ‘Esm Cold’.

The new *Gypsophila* 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 freely flowering *Gypsophila* cultivars with many petals
per flower and straight stems.

The new *Gypsophila* originated from a cross-pollination
made by the Inventor in El Quinche, Pichincha, Ecuador in
February, 2003 of a proprietary selection of *Gypsophila*
hybrida identified as Line 146, not patented, as the female, or
seed, parent with a proprietary selection of *Gypsophila*
hybrida identified as Line 31, not patented, as the male, or
pollen, parent. The cultivar Esm Cold was discovered and
selected by the Inventor as a flowering plant from within the
progeny of the stated cross-pollination in a controlled envi-
ronment in El Quinche, Pichincha, Ecuador.

Asexual reproduction of the new *Gypsophila* by cuttings in
a controlled environment in El Quinche, Pichincha, Ecuador
since December, 2003, has shown that the unique features of
this new *Gypsophila* are stable and reproduced true to type in
successive generations.

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SUMMARY OF THE INVENTION

The cultivar Esm Cold has not been observed under all
possible environmental conditions. The phenotype may vary
somewhat with variations in environment such as tempera-
ture, daylength and light intensity, without, however, any
variance in genotype.

The following traits have been repeatedly observed and are
determined to be the unique characteristics of ‘Esm Cold’.
These characteristics in combination distinguish ‘Esm Cold’
as a new and distinct cultivar of *Gypsophila*:

1. Erect and strong flowering stems.
2. Early, uniform and freely flowering habit.
3. Semi-double white-colored flowers.
4. Good postproduction longevity.

In side-by-side comparisons conducted in El Quinche,
Pichincha, Ecuador, plants of the new *Gypsophila* differed
from plants of the female parent selection in the following
characteristics:

1. Plants of the new *Gypsophila* had shorter and stronger
flowering stems than plants of the female parent selec-
tion.
2. Plants of the new *Gypsophila* had larger flowers than
plants of the female parent selection.

In side-by-side comparisons conducted in El Quinche,
Pichincha, Ecuador, plants of the new *Gypsophila* differed
from plants of the male parent selection in the following
characteristics:

1. Plants of the new *Gypsophila* and the male parent selec-
tion differed slightly in flower color.
2. Plants of the new *Gypsophila* were more freely flowering
than plants of the male parent selection.

Plants of the new *Gypsophila* can be compared to plants of
the *Gypsophila* cultivar Esm Alicia, disclosed in a U.S. Plant
Pat. No. 19,479. In side-by-side comparisons conducted in El
Quinche, Pichincha, Ecuador, plants of the new *Gypsophila*
differed from plants of the cultivar Esm Alicia in the follow-
ing characteristics:

1. Plants of the new *Gypsophila* were shorter than plants of
the cultivar Esm Alicia.

2. Plants of the new *Gypsophila* had shorter internodes than plants of the cultivar Esm Alicia.
3. Flower petals of plants of the new *Gypsophila* were not as luminous white in color as flower petals of plants of the cultivar Esm Alicia.

Plants of the new *Gypsophila* can also be compared to plants of the *Gypsophila* cultivar Dangypflash, disclosed in U.S. Plant Pat. No. 12,422. In side-by-side comparisons conducted in El Quinche, Pichincha, Ecuador, plants of the new *Gypsophila* differed from plants of the cultivar Dangypflash in the following characteristics:

1. Plants of the new *Gypsophila* were shorter and more narrow than plants of the cultivar Dangypflash.
2. Plants of the new *Gypsophila* had shorter internodes than plants of the cultivar Dangypflash.
3. Plants of the new *Gypsophila* had shorter leaves than plants of the cultivar Dangypflash.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Gypsophila*. These photographs show the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new *Gypsophila*. The photograph on the first sheet comprises a side perspective view of a typical flowering stem of 'Esm Cold'. The photograph on the second sheet is a close-up view of typical flowers of 'Esm Cold'.

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 following observations and measurements describe plants grown in El Quinche, Pichincha, Ecuador during the winter in ground beds in an outdoor nursery and under conditions and practices which approximate those generally used in commercial cut *Gypsophila* production. During the production of the plants, day temperatures ranged from 11° C. to 28° C. and night temperatures ranged from 5° C. to 11° C. Plants were pinched one time about four weeks after planting and were grown under long day/short day conditions. Measurements and numerical values represent averages for typical six-month old flowering plants.

Botanical classification: *Gypsophila hybrida* cultivar Esm Cold.

Commercial classification: Cut flower *Gypsophila*.

Parentage:

Female, or seed, parent.—Proprietary selection of *Gypsophila hybrida* identified as Line 146, not patented.

Male, or pollen, parent.—Proprietary selection of *Gypsophila hybrida* identified as Line 31, not patented.

Propagation:

Type.—By cuttings.

Time to initiate roots.—About 16 to 21 days at 17° C. to 25° C.

Time to produce a rooted cutting.—About five to six weeks at 17° C. to 25° C.

Root description.—Fine; 161C in color.

Rooting habit.—Freely branching.

Plant description:

Appearance.—Perennial cut flower. Erect and strong flowering stems; inverted triangle form. Freely flow-

ering; many-petalled luminous white-colored flowers arranged in symmetrical and moderately dense compound cymes. Vigorous growth habit.

Branching habit.—After pinching, about 15 flowering stems develop per year.

Plant height.—About 90 cm.

Plant diameter or spread.—About 70 cm.

Flowering stems.—Length: About 85 cm. Diameter: About 5 mm. Internode length: About 6.5 cm.

Strength: Strong. Texture: Glabrescent. Color: 138B.

Foliage description:

Arrangement.—Opposite, decussate, simple; sessile.

Length.—About 4.8 cm.

Width.—About 1.4 cm.

Shape.—Lanceolate.

Apex.—Acute.

Base.—Cuneate.

Margin.—Entire.

Texture, upper and lower surfaces.—Smooth, glabrous; waxy.

Venation pattern.—Parallel.

Color.—Developing foliage, upper surface: 147A.

Developing foliage, lower surface: 136A. Fully expanded foliage, upper surface: Between 139A and 147A; venation, 147A. Fully expanded foliage, lower surface: 147A; venation, 143A.

Flower description:

Flower arrangement and habit.—Symmetrical compound cymes with numerous many-petalled white-colored flowers, flowers rotate. Very freely flowering, about 1,300 flowers per inflorescence. Flowers face mostly upright.

Flowering response.—In Ecuador, plants flower year round. Plants begin flowering about 16 weeks after planting.

Post-production longevity.—As a cut flower, flowers last for about eleven days. Flowers persistent.

Fragrance.—Slightly fragrant; pleasant.

Inflorescence height.—About 85 cm.

Inflorescence diameter.—About 42 cm.

Flower diameter.—About 1.3 cm.

Flower depth (height).—About 6 mm.

Flower buds.—Length: About 3 mm. Diameter: About 3 mm. Shape: Nearly globose. Color: 157A and 197A.

Petals/petaloids.—Quantity per flower: About 62 arranged in clusters. Length: About 5 mm. Width: About 3 mm. Shape: Oval to spatulate. Apex: Truncate, emarginate or obtuse. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous; waxy. Color: When opening and fully opening, upper surface: Close to N155D; towards the base, close to 144A; color becoming closer to 155A with development. When opening and fully opening, lower surface: Close to N155D.

Sepals.—Quantity per flower: About seven to ten fused to form a cup-shaped calyx. Length: About 3.4 mm. Width: About 2.3 mm. Shape: Roughly linear. Apex: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color: When developing, upper surface: 137B. When developing, lower surface: 137A. Fully developed, upper surface: 146A. Fully developed, lower surface: 148A.

Peduncles.—Length: About 3.4 cm. Diameter: About 6 mm. Strength: Strong. Angle: About 38° from vertical. Texture: Smooth, glabrous. Color: 146C.

Pedicels.—Length: About 7.5 mm. Diameter: About 0.5 mm. Strength: Strong. Angle: About 45° from vertical. Texture: Smooth, glabrous. Color: 147A.

Reproductive organs.—Stamens: Quantity per flower: Ten. Anther shape: Reniform to globose. Anther length: Less than 1 mm. Anther color: 155A. Pollen amount: Scarce. Pollen color: Close to 155A. Pistils: Quantity per flower: One. Pistil length: About 5.3 mm. Style length: About 4.1 mm. Style color: Close to N155D. Stigma shape: Curved apiculate. Stigma color: Close to N155D. Ovary color: 144C; occasionally towards the apex, 183A. Seed/fruit: Seed and fruit production has not been observed.

Disease/pest resistance: Plants of the new *Gypsophila* have not been shown to be resistant to pathogens and pests common to *Gypsophila*.

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

It is claimed:

1. A new and distinct *Gypsophila* plant named ‘Esm Cold’ as illustrated and described.

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