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

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- (54) **CHRYSANTHEMUM** PLANT NAMED ‘DOMSUDIYEL’
- (50) Latin Name: *Chrysanthemum X morifolium*
Varietal Denomination: **Domsudiyel**
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- (51) **Int. Cl.**
A01H 5/02 (2018.01)
A01H 6/14 (2018.01)
- (52) **U.S. Cl.**
USPC **Plt./289**
CPC *A01H 6/1424* (2018.05)
- (58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Chrysanthemum* plant named ‘Domsudiyel’, characterized by its upright to outwardly spreading and uniformly and broadly mounded plant habit; moderately vigorous growth habit; freely branching habit; dense and full plant form; uniform and freely flowering habit; medium-sized decorative-type inflorescences with bright yellow-colored ray florets; early season flowering habit, grown under natural season conditions, plants begin flowering in mid-August in the United Kingdom; and good garden performance.

1 Drawing Sheet

1

Botanical designation: *Chrysanthemum X morifolium*.
Cultivar denomination: ‘DOMSUDIYEL’.

CROSS-REFERENCED TO CLOSELY-RELATED APPLICATIONS

Title: *Chrysanthemum* Plant Named ‘DOMSUDIPI’
Applicant: Peter Wain
Filed: Concurrently with this application
Title: *Chrysanthemum* Plant Named ‘DOMSUDITWHI’
Applicant: Peter Wain
Filed: Concurrently with this application

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct *Chrysanthemum* plant, botanically known as *Chrysanthemum X morifolium*, commercially grown as a garden *Chrysanthemum* plant, referred to as code number 65862 in U.S. Provisional Patent Application Ser. No 62/708,405 and hereinafter referred to by the name ‘Domsudiyel’.

The new *Chrysanthemum* plant is a product of a planned breeding program conducted by the Inventor in Fareham, Hampshire, United Kingdom. The objective of the breeding program is to create new garden *Chrysanthemum* plants with numerous attractive inflorescences.

The new *Chrysanthemum* plant is a naturally-occurring whole plant mutation of a proprietary selection of *Chrysanthemum X morifolium* identified as code number 802358, not patented. The new *Chrysanthemum* plant was discovered and selected by the Inventor as a single flowering plant from within a population of plants of the mutation parent in a

2

controlled greenhouse environment in Fareham, Hampshire, United Kingdom in March, 2014.

Asexual reproduction of the new *Chrysanthemum* plant by terminal vegetative cuttings was first conducted in Fareham, Hampshire, United Kingdom in March, 2014. Asexual reproduction by terminal vegetative cuttings has shown that the unique features of this new *Chrysanthemum* plant are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

Plants of the new *Chrysanthemum* have not been observed under all possible combinations of environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions such as temperature, 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 ‘Domsudiyel’. These characteristics in combination distinguish ‘Domsudiyel’ as a new and distinct *Chrysanthemum* plant:

1. Upright to outwardly spreading and uniformly and broadly mounded plant habit.
2. Moderately vigorous growth habit.
3. Freely branching habit; dense and full plant form.
4. Uniform and freely flowering habit.
5. Medium-sized decorative-type inflorescences with bright yellow-colored ray florets.
6. Early season flowering habit, grown under natural season conditions, plants begin flowering in mid-August in the United Kingdom.
7. Good garden performance.

Plants of the new *Chrysanthemum* can be compared to plants of the mutation parent selection. Plants of the new *Chrysanthemum* differ primarily from plants of the mutation parent selection in ray floret color as plants of the new *Chrysanthemum* have inflorescences with bright yellow-colored ray florets whereas plants of the mutation parent selection have inflorescences with light red purple-colored ray florets.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum X morifolium* 'Domsudipi', disclosed in U.S. Plant patent application Ser. No. 16/350,603. Plants of the new *Chrysanthemum* differ primarily from plants of 'Domsudipi' in ray floret color as plants of the new *Chrysanthemum* have inflorescences with bright yellow-colored ray florets whereas plants of 'Domsudipi' have inflorescences with red purple to purple-colored ray florets.

Plants of the new *Chrysanthemum* can be compared to plants of *Chrysanthemum X morifolium* 'Domsuditwhi', disclosed in U.S. Plant patent application Ser. No. 16/350,602. Plants of the new *Chrysanthemum* differ primarily from plants of 'Domsuditwhi' in ray floret color as plants of the new *Chrysanthemum* have inflorescences with bright yellow-colored ray florets whereas plants of 'Domsuditwhi' have inflorescences with light yellow to white-colored ray florets.

Plants of the new *Chrysanthemum* can also be compared to plants of *Chrysanthemum X morifolium* 'Daybreak Dark Yellow', not patented. In side-by-side comparisons, plants of the new *Chrysanthemum* differ primarily from plants of 'Daybreak Dark Yellow' in the following characteristics:

1. Plants of the new *Chrysanthemum* are not as vigorous as plants of 'Daybreak Dark Yellow'.
2. Plants of the new *Chrysanthemum* and 'Daybreak Dark Yellow' differ in ray floret color as plants of the new *Chrysanthemum* have inflorescences with bright yellow-colored ray florets whereas plants of 'Daybreak Dark Yellow' have inflorescences with deep yellow-colored ray florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPH

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

The photograph is a top perspective view of a typical flowering plant of 'Domsudiyel' grown in a container.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photograph and following observations and measurements describe plants grown during the winter in 14-cm containers in a glass-covered greenhouse in Fareham, Hampshire, United Kingdom and under cultural practices typical of commercial garden *Chrysanthemum* production. During the production of the plants, day and night temperatures ranged from 17° C. to 21° C. and light levels averaged 6,000 lux. Plants were grown under long day/short night conditions for about five weeks (including propagation period) and then grown under short day/long night conditions to induce inflorescence initiation and development. Plants were twelve weeks old when the photograph and detailed description were taken. In the following

description, color references are made to The Royal Horticultural Society Colour Chart, Fifth Edition, except where general terms of ordinary dictionary significance are used. Botanical classification: *Chrysanthemum X morifolium* 'Domsudiyel'.

Parentage: Naturally-occurring whole plant mutation of a proprietary selection of *Chrysanthemum X morifolium* identified as code number 802358, not patented.

Propagation:

Type.—Terminal vegetative cuttings.

Time to initiate roots, summer.—About ten days at temperatures about 21° C.

Time to initiate roots, winter.—About twelve days at temperatures about 21° C.

Time to produce a rooted young plant, summer.—About three weeks at temperatures about 21° C.

Time to produce a rooted young plant, winter.—About four weeks at temperatures about 21° C.

Root description.—Fine, fibrous; typically light brown in color, actual color of the roots is dependent on substrate composition, water quality, fertilizer type and formulation, substrate temperature and physiological age of roots.

Rooting habit.—Freely branching; sparse.

Plant description:

Plant and growth habit.—Herbaceous decorative-type garden *Chrysanthemum*; stems upright to outwardly spreading giving a uniformly broadly mounded appearance to the plant; numerous lateral branches and relatively short internodes, dense and full plant form; moderately vigorous growth habit and medium growth rate.

Plant height.—About 19 cm.

Plant width.—About 35 cm.

Branching habit.—Freely branching habit; about 18 lateral branches develop after removal of terminal apex (pinching).

Lateral branches.—Length: About 15 cm. Diameter: About 4 mm. Internode length: About 1 cm. Strength: Strong. Aspect: About 70° from vertical and then bending upwardly. Texture: Fine pubescence. Color: Close to 144B.

Leaf description:

Arrangement.—Alternate, simple.

Length.—About 3.4 cm.

Width.—About 2.9 cm.

Shape.—Palmately-lobed; roughly ovate with three to five lobes.

Apex.—Broadly mucronate.

Base.—Attenuate.

Margin.—Slightly dentate and palmately lobed; sinuses between lateral lobes mostly divergent.

Texture, upper surface.—Fine pubescence; slightly rough.

Texture, lower surface.—Fine pubescence; waxy.

Venation pattern.—Pinnate.

Color.—Developing leaves, upper surface: Close to 137A. Developing leaves, lower surface: Close to 137C. Fully expanded leaves, upper surface: Close to 137A; venation, close to 144B. Fully expanded leaves, lower surface: Close to 137C; venation, close to 143B.

Petioles.—Length: About 1.5 cm. Diameter: About 2 mm. Texture, upper surface: Fine pubescence; slightly rough. Texture, lower surface: Fine pubes-

cence; waxy. Color, upper surface: Close to 144B.
Color, lower surface: Close to 143B.

Inflorescence description:

Form and flowering habit.—Decorative-type inflorescence form with narrowly spatulate-shaped ray florets; inflorescences borne on terminals above and beyond the foliar plane; disc and ray florets arranged acropetally on a capitulum; freely flowering habit with about 252 inflorescences developing per plant during the flowering season.

Fragrance.—Mildly fragrant; pungent, herbaceous.

Flowering response.—Early season flowering habit, plants exposed to natural season conditions begin flowering in mid-August in the United Kingdom; plants flower uniformly and continuously during the flowering season.

Inflorescence longevity.—Inflorescences maintain good color and substance for about three to five weeks on the plant; inflorescences persistent.

Inflorescence buds.—Height: About 3 mm. Diameter: About 5 mm. Shape: Oblate. Color: Close to 138A.

Inflorescence diameter.—About 3.5 cm.

Inflorescence height.—About 1.3 cm.

Disc diameter.—Disc floret development has not been observed on plants of the new *Chrysanthemum*.

Receptacles.—Height: About 3 mm. Diameter: About 3 mm. Shape: Conical. Color: Close to 145B.

Ray florets.—Number of ray florets per inflorescence: About 120 arranged in about seven whorls. Orientation: Initially upright, then about 80° from vertical; slightly concave. Length: About 1.6 cm. Width: About 7 mm. Shape: Narrowly spatulate. Apex: Emarginate. Base: Fused into a short tube. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous; double-keeled. Color: When opening and

fully opened, upper surface: Close to 8A; color becoming closer to 5D with development. When opening and fully opened, lower surface: Close to 8C; color becoming closer to 4D with development.

Phyllaries.—Number of phyllaries per inflorescence: About 18 arranged in about three whorls. Length: About 6 mm. Width: About 2 mm. Shape: Lanceolate. Apex: Acute. Base: Obtuse. Margin: Entire. Texture, upper surface: Smooth, glabrous; waxy. Texture, lower surface: Fine pubescence; waxy. Color, upper surface: Close to 144A. Color, lower surface: Close to 137C.

Peduncles.—Length, terminal peduncle: About 3 cm. Diameter, terminal peduncle: About 1 mm. Angle: Erect to about 10° from vertical. Strength: Moderately strong; flexible. Texture: Densely pubescent. Color: Close to 144A.

Reproductive organs.—Androecium: None observed. Gynoecium: Present only on ray florets. Pistil length: About 3 mm. Stigma shape: Bi-parted. Stigma color: Close to 1B. Style length: About 2 mm. Style color: Close to 1C. Ovary color: Close to NN155C.

Seeds and fruits.—To date, seed and fruit production has not been observed on plants of the new *Chrysanthemum*.

Pathogen & pest resistance: To date, resistance to pathogens and pests common to *Chrysanthemum* plants has not been observed on plants of the new *Chrysanthemum*.

Garden performance: Plants of the new *Chrysanthemum* have demonstrated good garden performance and to tolerate temperatures from about 0° C. to about 35° C.

It is claimed:

1. A new and distinct *Chrysanthemum* plant named 'Dom-sudiyel' as illustrated and described.

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