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van Dijk

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(54) **HYDRANGEA PLANT NAMED ‘HISUN’**

(50) Latin Name: *Hydrangea macrophylla*
Varietal Denomination: **HISUN**

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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 0 days.

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A01H 5/02 (2018.01)
A01H 6/48 (2018.01)

(52) **U.S. Cl.**
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CPC *A01H 6/48* (2018.05)

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USPC Plt./250
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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Hydrangea* plant named ‘HISUN’, characterized by its upright and broadly spreading plant habit; freely branching habit; strong and sturdy stems; freely flowering habit; large and dense inflorescences with white-colored sterile flowers; and good post-production longevity.

2 Drawing Sheets

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Botanical designation: *Hydrangea macrophylla*.
Cultivar denomination: ‘HISUN’.

STATEMENT REGARDING PRIOR
DISCLOSURES BY INVENTOR/APPLICANT &
ASSIGNEE

An European Community Plant Breeder’s Rights application for the instant plant was filed by the Assignee, Hi Breeding B.V. of De Lier, The Netherlands on Sep. 9, 2019, application number 2019/2202. Foreign priority is not claimed to this application.

The Inventor/Applicant and Assignee assert that no publications nor advertisements relating to sales, offers for sale or public distribution occurred more than one year prior to the effective filing date of this application. Any information about the claimed plant would have been obtained from a direct or indirect disclosure from the Inventor/Applicant and/or the Assignee. Inventor/Applicant and Assignee claim a prior art exemption under 35 U.S.C. 102(b)(1) for disclosure and/or sales prior to the filing date but less than one year prior to the effective filing date.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Hydrangea* plant, botanically known as *Hydrangea macrophylla*, commercially referred to as a mophead-type *Hydrangea* and hereinafter referred to by the name ‘HISUN’.

The new *Hydrangea* plant is a product of a planned breeding program conducted by the Inventor in De Lier, The Netherlands. The objective of the breeding program is to create new sturdy and strong *Hydrangea* plants with attractive inflorescences and good postproduction longevity.

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The new *Hydrangea* plant originated from a cross-pollination in March, 2014 of a proprietary selection of *Hydrangea macrophylla* identified as code number 1676, not patented, as the female, or seed, parent with a proprietary selection of *Hydrangea macrophylla* identified as code number 1695, not patented, as the male, or pollen, parent. The new *Hydrangea* plant was discovered and selected as a single flowering plant from within the progeny of the stated cross-pollination in a controlled greenhouse environment in De Lier, The Netherlands in April, 2016.

Asexual reproduction of the new *Hydrangea* plant by terminal vegetative cuttings since June, 2016 in a controlled greenhouse environment in De Lier, The Netherlands has shown that the unique features of this new *Hydrangea* plant are stable and reproduced true to type in successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

Plants of the new *Hydrangea* 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 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 ‘HISUN’. These characteristics in combination distinguish ‘HISUN’ as a new and distinct *Hydrangea* plant:

1. Upright and broadly spreading plant habit.
2. Freely branching habit.
3. Strong and sturdy stems.
4. Freely flowering habit.
5. Large and dense inflorescences with white-colored sterile flowers.
6. Good post-production longevity.

Plants of the new *Hydrangea* can be compared to plants of the female parent selection. Plants of the new *Hydrangea* differ primarily from plants of the female parent selection in the following characteristics:

1. Leaves of plants of the new *Hydrangea* are more rounded than leaves of plants of the female parent selection.
2. Sepals of sterile flowers of plants of the new *Hydrangea* are more rounded than and not as pointed as sepals of sterile flowers of plants of the female parent selection.

Plants of the new *Hydrangea* can be compared to plants of the male parent selection. Plants of the new *Hydrangea* differ primarily from plants of the male parent selection in stem strength as stems of plants of the new *Hydrangea* are sturdier than stems of plants of the male parent selection.

Plants of the new *Hydrangea* can also be compared to plants of *Hydrangea macrophylla* ‘Schneeball’, not patented. In side-by-side comparisons, plants of the new *Hydrangea* differ primarily from plants of ‘Schneeball’ in the following characteristics:

1. Plants of the new *Hydrangea* are more compact than plants of ‘Schneeball’.
2. Plants of the new *Hydrangea* are not as vigorous as plants of ‘Schneeball’.
3. Plants of the new *Hydrangea* are more hardy than plants of ‘Schneeball’.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the unique appearance of the new *Hydrangea* plant 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 *Hydrangea* plant.

The photograph on the first sheet (FIG. 1) is a side perspective view of a typical flowering plant of ‘HISUN’ grown in a container.

The photograph at the top of the second sheet (FIG. 2) is a close-up view of a typical inflorescence of ‘HISUN’.

The photograph at the bottom of the second sheet (FIG. 3) is a close-up view of a typical leaf of ‘HISUN’.

DETAILED BOTANICAL DESCRIPTION

Plants used in the aforementioned photographs and in the following description were grown during the summer in 14-cm containers in a glass-covered greenhouse in De Lier, The Netherlands and under cultural practices typical of commercial *Hydrangea* production. During the production of the plants, day temperatures ranged from 20° C. to 35° C., night temperatures ranged from 10° C. to 22° C. and lightly levels averaged 4,000 lux. Plants of the new *Hydrangea* were pinched one time and were two years old when the photographs and description were taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2015 Edition, except where general terms of ordinary dictionary significance are used.

Plants are not typically “blued” (treated with aluminum sulfate).

Botanical description: *Hydrangea macrophylla* ‘HISUN’.

Parentage:

Female, or seed, patent.—Proprietary selection of *Hydrangea macrophylla* identified as code number 1676, not patented.

Male, or pollen, patent.—Proprietary selection of *Hydrangea macrophylla* identified as code number 1695, not patented.

Propagation:

Type cutting.—By vegetative terminal cuttings.

Time to initiate roots, summer.—About twelve days at temperatures about 22° C.

Time to initiate roots, winter.—About two weeks at temperatures about 20° C.

Time to produce a rooted young plant, summer.—About four weeks at temperatures about 22° C.

Time to produce a rooted young plant, winter.—About one month at temperatures about 19° C.

Root description.—Medium in thickness, fibrous; typically white 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.—Moderately freely branching; medium density.

Plant description:

Plant and growth habit.—Upright, broadly outwardly spreading and mounding plant habit; flattened globular in overall shape; strong and sturdy stems; moderately vigorous growth habit and moderate growth rate; about six months from propagation are required to produce a small finished flowering plant.

Plant height.—About 30.3 cm.

Plant diameter or area of spread.—About 46.2 cm.

Lateral branch description:

Branching habit.—Freely branching habit with about eleven lateral branches per plant; pinching enhances lateral branch development.

Length.—About 13.6 cm.

Diameter.—About 5 mm.

Internode length.—About 4.9 cm.

Strength.—Strong, sturdy.

Aspect.—About 55° from vertical.

Texture.—Smooth, glabrous; fully developed, woody.

Luster.—Moderately glossy.

Color, developing.—Close to 144A.

Color, fully developed.—Close to 144A; at the nodes, slightly tinged with close to 183D; when woody, close to 199A, N199C and N199D.

Lenticels.—Density: Medium. Length: About 1.25 mm. Width: About 0.5 mm. Color: Close to N186C.

Leaf description:

Arrangement.—Opposite, simple.

Length.—About 10.9 cm.

Width.—About 8 cm.

Shape.—Broadly ovate to broadly obovate.

Apex.—Apiculate.

Base.—Acute to truncate.

Margin.—Coarsely dentate to serrate.

Texture and luster, upper surface.—Slightly rugose, glabrous; semi-glossy.

Texture and luster, lower surface.—Moderately rugose, glabrous; slightly glossy.

Venation pattern.—Pinnate.

Color.—Developing leaves, upper surface: Close to NN137A. Developing leaves, lower surface: Close to 137B. Fully developed leaves, upper surface: Close to between 147A and N189A; venation, close to 144A. Fully developed leaves, lower surface: Close to 147B; venation, close to 146C to 146D.

Petioles.—Length: About 2 cm. Diameter: About 3 mm. Texture and luster, upper surface: Smooth, glabrous; slightly glossy. Texture and luster, lower surface: Smooth, glabrous; moderately glossy. Color, upper and lower surfaces: Close to 146C to 146D.

Flower description:

Flower type and habit.—Showy rotate sterile flowers and small, inconspicuous rotate fertile flowers arranged on mophead-type terminal panicles; panicles flattened globular in shape; sterile flowers face upright to outwardly and fertile flowers mostly upright.

Fragrance.—None detected.

Natural flowering season.—In the garden, plants flower continuously from the late spring to late summer in The Netherlands; flower dormancy can be broken by giving a two-month cold treatment.

Flower longevity.—Good postproduction longevity; sterile flowers maintain good substance for about six weeks on the plant, sterile flowers persistent; fertile flowers last for a few days on the plant, fertile flowers not persistent.

Quantity of flowers.—Freely flowering habit; about 140 sterile flowers per panicle and about 30 fertile flowers per panicle.

Panicle height.—About 7.7 cm.

Panicle diameter.—About 14.3 cm.

Panicle peduncles.—Length: About 5.2 cm. Diameter: About 2.5 mm. Strength: Strong. Aspect: Primary peduncles, mostly erect; lateral peduncles, about 40° from primary peduncle axis. Texture: Densely pubescent. Color: Close to 145A; distally, close to 157C; at the nodes, tinged with close to 183D. Lenticels: Density: Medium. Length: About 1 mm. Width: About 0.5 mm. Color: Close to 178A to 178B.

Sterile flower buds.—Length: About 8 mm. Diameter: About 9 mm. Shape: Cup-shaped. Color: Close to 145D; distally, with close to 155C.

Fertile flower buds.—Length: About 4 mm. Diameter: About 4 mm. Shape: Broadly obovate. Color: Close to 145A to 145B.

Sterile flower diameter.—About 3.2 cm.

Sterile flower depth (height).—About 1.3 cm.

Fertile flower diameter.—About 8 mm.

Fertile flower depth (height).—About 5 mm.

Petals, sterile flowers.—Quantity and arrangement: Four, or occasionally three, in a single whorl. Length: About 2.5 mm. Width: About 1.8 mm. Shape: Broadly ovate, concave. Apex: Broadly acute. Base: Cuneate. Margin: Entire. Texture and luster, upper and lower surfaces: Smooth, glabrous; matte. Color: When opening and fully opened, upper surface: Close to NN155D; color does not change with subsequent development. When opening and fully opened, lower surface: Close to NN155D; color does not change with subsequent development.

Petals, fertile flowers.—Quantity and arrangement: Five, or occasionally six, in a single whorl. Length: About 3.5 mm. Width: About 2 mm. Shape: Ovate, concave. Apex: Acute. Base: Cuneate. Margin: Entire. Texture and luster, upper and lower surfaces: Smooth, glabrous; matte. Color: When opening and fully opened, upper surface: Close to NN155D; color does not change with subsequent development. When opening and fully opened, lower surface: Close to NN155D; color does not change with subsequent development.

Sepals, sterile flowers.—Quantity and arrangement: Typically four, or occasionally five, in a single whorl. Length: About 2.2 cm. Width: About 2.5 cm. Shape: Reniform. Apex: Obtuse to retuse. Base: Broadly attenuate. Margin: Entire; coarsely undulate. Texture and luster, upper and lower surfaces: Smooth, glabrous; matte. Color: When opening, upper and lower surfaces: Close to NN155C; towards the base, close to 155A. Fully opened, upper and lower surfaces: Close to NN155D; color does not change with subsequent development.

Sepals, fertile flowers.—Quantity and arrangement: Five in a single whorl. Length: About 3 mm. Width: About 1.5 mm. Shape: Ovate. Apex: Acute. Base: Broadly cuneate. Margin: Entire. Texture and luster, upper and lower surfaces: Smooth, glabrous; matte. Color: When opening, upper and lower surfaces: Close to 145D; towards the apex, close to 155C. Fully opened, upper and lower surfaces: Close to NN155B; towards the apex, tinged with close to 145D; color does not change with subsequent development.

Pedicels, sterile flowers.—Length: About 1.4 cm. Diameter: About 1.5 mm. Strength: Moderately strong. Aspect: About 45° from peduncle. Texture and luster: Densely pubescent; matte. Color: Close to NN155D.

Pedicels, fertile flowers.—Length: About 3 mm. Diameter: About 1 mm. Strength: Moderately strong. Aspect: About 30° from peduncle. Texture and luster: Densely pubescent; matte. Color: Close to 155C.

Reproductive organs, sterile flowers.—Stamens: Quantity per flower: Eight. Filament length: About 1 mm. Filament color: Close to 145D. Anther shape: Broadly oblong. Anther length: About 1.5 mm. Anther color: Close to 145B to 145C. Pollen amount: None detected. Pistils: Pistil quantity per flower: Two. Pistil length: About 1 mm. Stigma shape: Club-shaped. Stigma color: Close to NN155A. Style length: About 0.5 mm. Style color: Close to 145D. Ovary color: Close to 145B.

Reproductive organs, fertile flowers.—Stamens: Quantity per flower: Ten. Filament length: About 2 mm. Filament color: Close to NN155D. Anther shape: Broadly oblong. Anther length: About 0.75 mm. Anther color: Close to 157D. Pollen amount: Scarce. Pollen color: Close to 155A. Pistils: Pistil quantity per flower: Three. Pistil length: About 2 mm. Stigma shape: Club-shaped. Stigma color: Close to NN155D. Style length: About 1 mm. Style color: Close to NN155D. Ovary color: Close to 157D.

Seeds.—To date, seed development has not been observed on plants of the new *Hydrangea*.

Pathogen & pest resistance: Under commercial production conditions, plants of the new *Hydrangea* have been observed to tolerate Powdery Mildew (*Erysiphe friesii* var. *friesii*) and *Botrytis* (*Botrytis cinerea*). Plants of the new *Hydrangea* not been observed to be resistant to pests and other pathogens common to *Hydrangea* plants.

Temperature tolerance: Plants of the new *Hydrangea* have been shown to be suitable for USDA Hardiness Zones 5 through 9.

It is claimed:

1. A new and distinct *Hydrangea* plant named 'HISUN' as illustrated and described.

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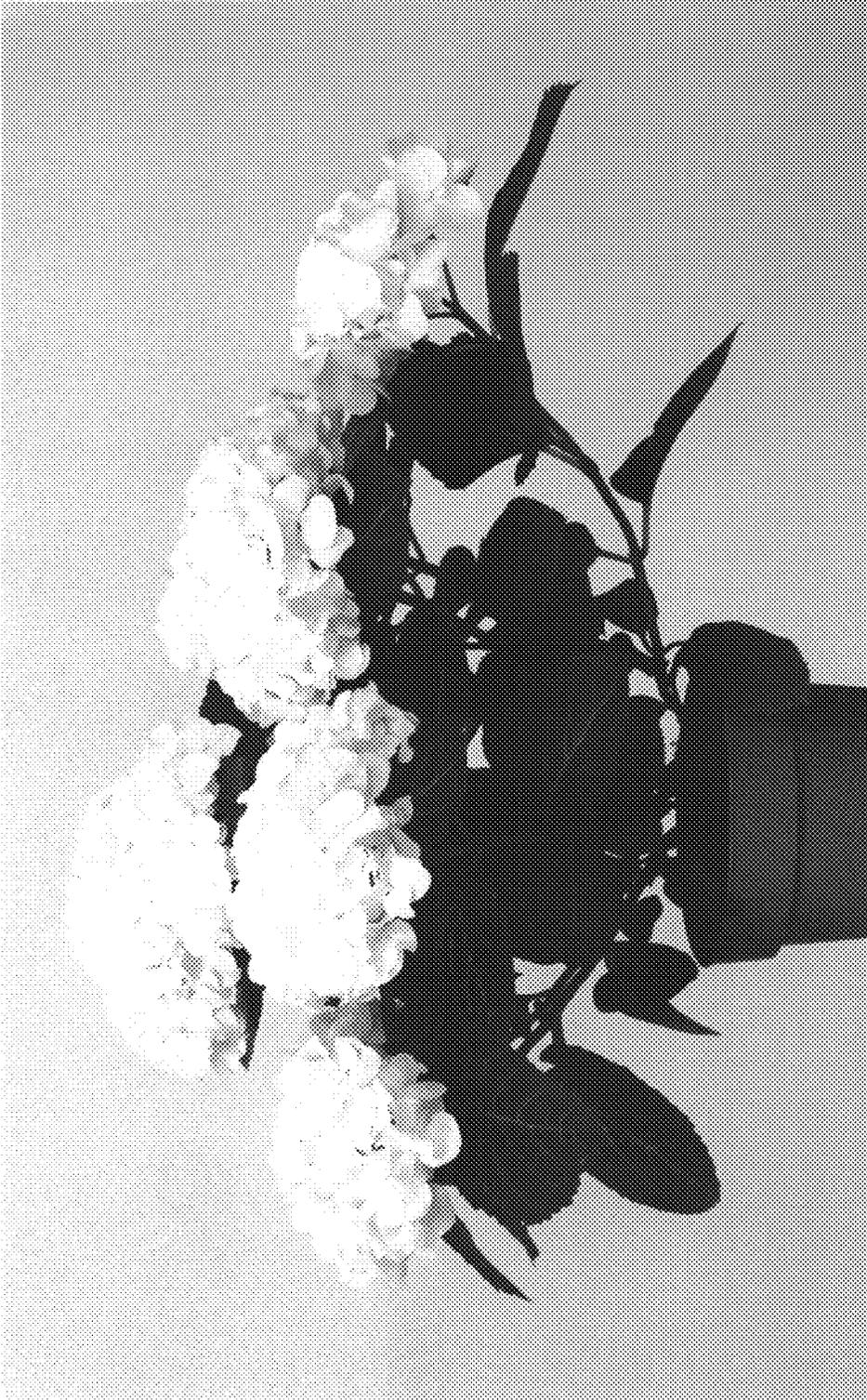


FIG. 1



FIG. 2

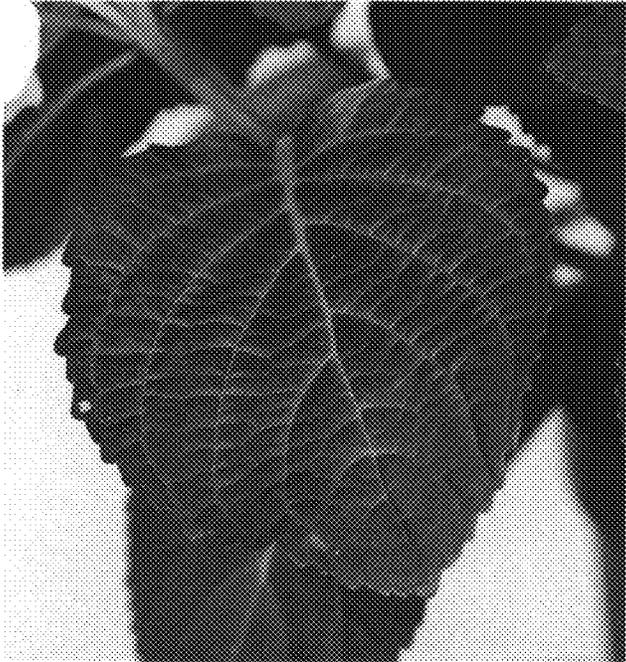


FIG. 3