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van Dijk

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

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

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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 ‘HISEA’, characterized by its upright and broadly spreading plant habit; compact, moderately vigorous growth habit and moderate growth rate; freely branching habit; strong and sturdy stems; dark green-colored leaves; freely flowering habit; large and dense inflorescences with purplish red to purplish pink-colored sterile flowers; and good post-production longevity.

3 Drawing Sheets

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

STATEMENT REGARDING PRIOR
DISCLOSURES BY INVENTOR/APPLICANT &
ASSIGNEE

An European Community Plant Breeder’s Rights application for the instant plant was filed by the Applicant/Assignee of the instant application, Hi Breeding B.V. of De Lier, The Netherlands on Nov. 15, 2021, application number 2021/2941. Foreign priority is not claimed to this European Plant Breeder’s Rights 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 exception 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 ‘HISEA’.

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.

The new *Hydrangea* plant originated from a cross-pollination on Apr. 14, 2015 of a proprietary selection of *Hydrangea macrophylla* identified as code number 1451, not patented, as the female, or seed, parent with a proprietary

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selection of *Hydrangea macrophylla* identified as code number 1452, 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 on Apr. 4, 2017.

Asexual reproduction of the new *Hydrangea* plant by terminal vegetative cuttings since Jul. 11, 2017 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 ‘HISEA’. These characteristics in combination distinguish ‘HISEA’ as anew and distinct *Hydrangea* plant:

1. Compact, upright and broadly spreading plant habit.
2. Moderately vigorous growth habit and moderate growth rate.
3. Freely branching habit.
4. Strong and sturdy stems.
5. Dark green-colored leaves.
6. Freely flowering habit.
7. Large and dense inflorescences with purplish red to purplish pink-colored sterile flowers.
8. 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. Plants of the new *Hydrangea* are more compact than plants of the female parent selection.
2. Stems of plants of the new *Hydrangea* are sturdier than stems 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 the following characteristics:

1. Plants of the new *Hydrangea* are more freely branching than plants of the male parent selection.
2. Stems of plants of the new *Hydrangea* are sturdier than stems of plants of the male parent selection.

Plants of the new *Hydrangea* can be compared to plants of *Hydrangea macrophylla* 'HBA 202911', not patented. In side-by-side comparisons, plants of the new *Hydrangea* differ primarily from plants of 'HBA 202911' in the following characteristics:

1. Plants of the new *Hydrangea* are more compact than plants of 'HBA 202911'.
2. Plants of the new *Hydrangea* are more freely branching than plants of 'HBA 202911'.
3. Stems of plants of the new *Hydrangea* are sturdier than stems of plants of 'HBA 202911'.

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

1. Plants of the new *Hydrangea* are more compact than plants of 'LAVBLAA'.
2. Stems of plants of the new *Hydrangea* are sturdier than stems of plants of 'LAVBLAA'.

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 'HISEA' 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 'HISEA'.

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

The photograph on the third sheet (FIG. 4) is a top perspective view of a typical flowering plant of 'HISEA' that has been treated with aluminum sulfate, or "blued".

DETAILED BOTANICAL DESCRIPTION

Plants used in the aforementioned photographs and in the following description were grown during the spring 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 light levels averaged 4,000 lux. Plants of the new *Hydrangea* were pinched one time and were 18 months old when the photographs and description were taken. In the following description, color references are made to The Royal Horti-

cultural Society Colour Chart, 2015 Edition, except where general terms of ordinary dictionary significance are used. Botanical description: *Hydrangea macrophylla* 'HISEA'.

Parentage:

Female, or seed, patent.—Proprietary selection of *Hydrangea macrophylla* identified as code number 1451, not patented.

Male, or pollen, patent.—Proprietary selection of *Hydrangea macrophylla* identified as code number 1452, 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.—Compact, upright, broadly outwardly spreading and mounding plant habit; flattened globular in overall shape; strong and sturdy stems; moderately vigorous and moderate growth rate; about six months from propagation are required to produce small finished flowering plants.

Plant height.—About 24.6 cm.

Plant diameter or area of spread.—About 51.3 cm.

Lateral branch description:

Branching habit.—Freely branching habit with about 30 lateral branches per plant; pinching enhances lateral branch development.

Length.—About 12.2 cm.

Diameter.—About 5 mm.

Internode length.—About 3 cm.

Strength.—Strong, sturdy.

Aspect.—About 40° from vertical.

Texture, developing and developed.—Smooth, glabrous; becoming woody with subsequent development.

Color, developing.—Close to 144B to 144C and at the nodes, strongly tinged with close to 183B.

Color, fully developed.—Close to 144A to 144B and at the nodes, tinged with close to 183B to 183C; when woody, close to 199A, 199B, N199A and 200A to 200B.

Lenticels.—Density: Medium density. Length: About 1 mm. Diameter: About 0.5 mm. Color: Close to 183B.

Leaf description:

Arrangement.—Opposite, simple.

Length.—About 11.5 cm.

Width.—About 7.7 cm.

Shape.—Broadly elliptic to broadly obovate.

Apex.—Apiculate.

Base.—Attenuate.

Margin.—Coarsely crenate-serrate.

Texture, upper surface.—Slightly rugose, glabrous.

Texture, lower surface.—Slightly rugose, mostly glabrous with small tufts at vein axils.

Venation pattern.—Pinnate.

Color.—Developing leaves, upper surface: Close to NN137A. Developing leaves, lower surface: Close to 147B. Fully developed leaves, upper surface: Darker than a blend of 139A and 147A; venation, close to 145B. Fully developed leaves, lower surface: Slightly darker than 147B; venation, close to 146D.

Petioles.—Length: About 3.6 cm. Diameter: About 3 mm to 4 mm. Texture and luster, upper and lower surfaces: Smooth, glabrous; moderately glossy. Color, upper surface: Close to a 145A and towards the margins, close to 144A. Color, lower surface: Close to 144A.

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 with a cold storage 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 110 sterile flowers per panicle and about 30 fertile flowers per panicle.

Panicle height.—About 8.3 cm.

Panicle diameter.—About 13.5 cm.

Panicle peduncles.—Length: About 3.5 cm. Diameter: About 2 mm to 2.5 mm. Strength: Strong. Aspect: Primary peduncles, mostly erect; lateral peduncles, about 45° from primary peduncle axis. Texture: Moderately pubescent. Color: Close to 145B and distally, close to 63C.

Sterile flower buds.—Length: About 1 cm. Diameter: About 1.4 cm. Shape: Irregular cup-shaped. Color: Close to 145C and distally, close to 63B.

Fertile flower buds.—Length: About 6 mm. Diameter: About 4.5 mm. Shape: Broadly obovate. Color: Close to 145D, 150D and 75A.

Sterile flower diameter.—About 3.1 cm to 4.2 cm.

Sterile flower depth (height).—About 1 cm to 1.8 cm.

Fertile flower diameter.—About 1.2 cm.

Fertile flower depth (height).—About 6 mm.

Petals, sterile flowers.—Quantity and arrangement: Four in a single whorl. Length: About 4 mm. Width: About 2 mm. Shape: Ovate, moderately 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 N74C to N74D and towards the margins, close to 75D; color does not change with subsequent development. When opening and fully opened, lower surface: Close to N74C to N74D

and towards the margins, close to 75D; color does not change with subsequent development.

Petals, fertile flowers.—Quantity and arrangement: Five in a single whorl. Length: About 6 mm. Width: About 3 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 76B with irregular blotches, close to 76A; color does not change with subsequent development. When opening and fully opened, lower surface: Close to 76B; color does not change with subsequent development.

Sepals, sterile flowers.—Quantity and arrangement: Typically four, or occasionally three or five, in a single whorl; moderately to strongly imbricate. Length: About 1.9 cm to 2.6 cm. Width: About 1.6 cm to 2.7 cm. Shape: Reniform to roughly broadly rhomboidal, slightly concave. Apex: Obtuse to retuse. Base: Broadly cuneate to truncate. Margin: Entire; slightly and coarsely undulate. Texture and luster, upper and lower surfaces: Smooth, glabrous; matte. Color: When opening, upper surface: Close to 61C and towards the apex, close to 64C. When opening, lower surface: Close to N66C. Fully opened, upper surface: Close to a blend of 61C, 67C and 68A; towards the base, close to 64C; with subsequent development, color becoming closer to 68B; when treated with aluminum sulfate or “blued”, color becoming closer to 96A to 96B. Fully opened, lower surface: Close to N66C; with subsequent development, color becoming closer to a blend of 70C and 73A; when treated with aluminum sulfate or “blued”, color becoming closer to 96B.

Sepals, fertile flowers.—Quantity and arrangement: Five in a single whorl. Length: About 1 mm. Width: About 1 mm. Shape: Deltoid. 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 150D; color does not change with subsequent development. When opening and fully opened, lower surface: Close to 150D; color does not change with subsequent development.

Pedicels, sterile flowers.—Length: About 2 cm. Diameter: About 1.2 mm. Strength: Moderately strong. Aspect: About 22.5° from main peduncle axis. Texture and luster: Densely pubescent; slightly glossy. Color: Close to 61B.

Pedicels, fertile flowers.—Length: About 2 mm. Diameter: About 1 mm. Strength: Moderately strong. Aspect: About 15° from vertical. Texture and luster: Densely pubescent; matte. Color: Close to 63C.

Reproductive organs, sterile flowers.—Stamens: Quantity per flower: Eight. Filament length: About 3 mm. Filament color: Close to 76C. Anther shape: Broadly oblong. Anther length: About 0.5 mm. Anther color: Close to 197D. Pollen amount: Moderate to abundant. Pollen color: Close to 155D. Pistils: Pistil quantity per flower: Two, or occasionally, one or three. Pistil length: About 1.5 mm. Stigma shape: Club-shaped. Stigma color: Close to 76C. Style length: About 1 mm. Style color: Close to 75B. Ovary color: Close to 150D.

Reproductive organs, fertile flowers.—Stamens: Quantity per flower: Ten. Filament length: About 3 mm. Filament color: Close to 75C. Anther shape: Broadly oblong. Anther length: About 0.5 mm. Anther color: Close to 197D. Pollen amount: Moderate to abundant. Pollen color: Close to 155D. Pistils: Pistil quantity per flower: Three, or occasionally two or four. Pistil length: About 2 mm. Stigma shape: Club-shaped. Stigma color: Close to 76C. Style length: About 1.5 mm. Style color: Close to 75B. Ovary color: Close to 150D.

Seeds.—To date, seed development has not been observed on plants of the new *Hydrangea*.
 Pathogen & pest resistance: To date, plants of the new *Hydrangea* have not been observed to be resistant to pathogens and pests 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 'HISEA' as illustrated and described.

* * * * *



FIG. 1



FIG. 2

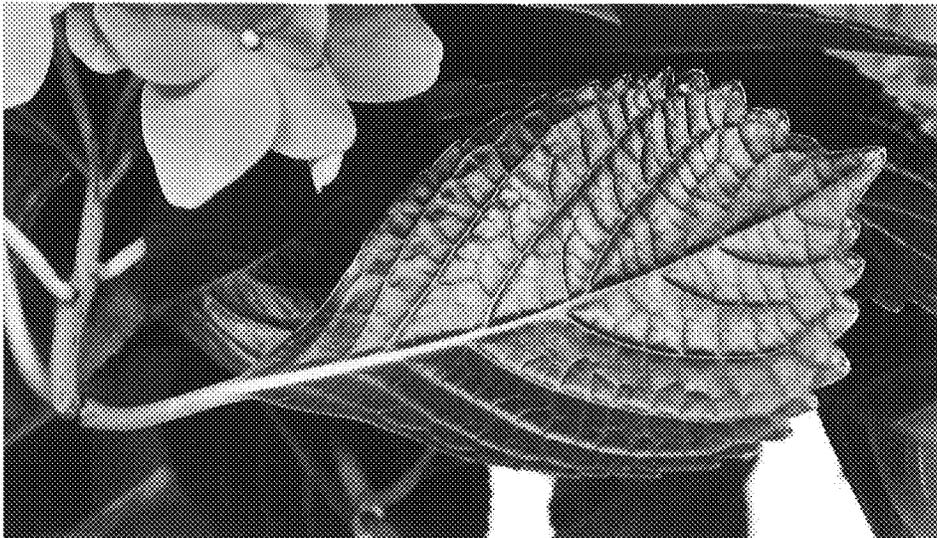


FIG. 3

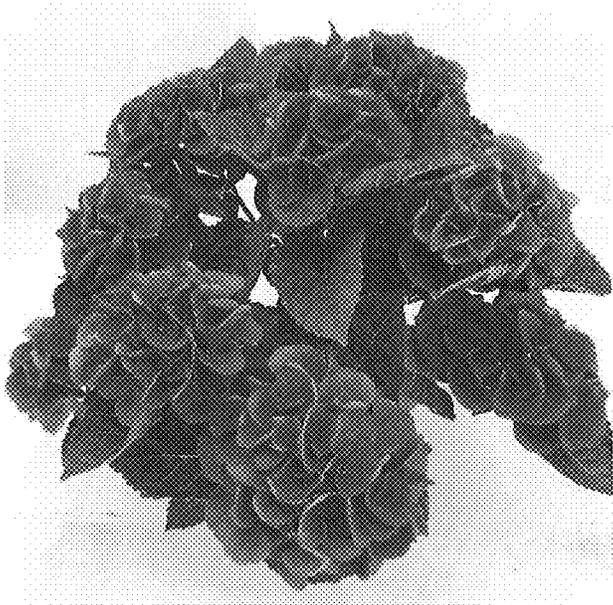


FIG. 4