

US00PP36110P2

# (12) United States Plant Patent Heuger

(10) Patent No.: US PP36,110 P2

(45) **Date of Patent:** Sep. 10, 2024

(54) HELLEBORUS PLANT NAMED 'HL 1028'

(50) Latin Name: *Helleborus niger X Helleborus x*hybridus

Varietal Denomination: HL 1028

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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.

(21) Appl. No.: 18/518,897

(22) Filed: Nov. 24, 2023

(51) **Int. Cl.** 

*A01H 5/02* (2018.01) *A01H 6/72* (2018.01) (52) U.S. Cl. USPC Plt./439

(58) Field of Classification Search

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#### (57) ABSTRACT

A new and distinct cultivar of *Helleborus* plant named 'HL 1028' characterized by its upright to somewhat outwardly spreading and mounded plant habit; moderately vigorous to vigorous growth habit; dark green-colored leaflets with lighter green-colored venation; freely flowering habit; white and purplish red-colored flowers; and good garden performance.

#### 2 Drawing Sheets

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Botanical designation: *Helleborus niger* X *Helleborus* x *hybridus*.

Cultivar denomination: 'HL 1028'.

## STATEMENT REGARDING PRIOR DISCLOSURES BY INVENTOR/APPLICANT

An European Community Plant Breeder's Rights application for the instant plant was filed by the Inventor/Applicant, Mr. Josef Heuger of Glandorf, Germany, on Dec. 1, 2022, application number 2022/2758. Foreign priority is not claimed to this application.

The Inventor/Applicant asserts 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 or Applicant. Inventor/Applicant claims a prior art exception under 35 U.S.C. 20 102(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 *Helleborus* plant, botanically known as *Helleborus niger* X *Helleborus* x *hybridus* and hereinafter referred to by the name 'HL 1028'.

The new *Helleborus* plant is a product of a planned 30 breeding program conducted by the Inventor in Glandorf, Germany. The objective of the breeding program was to create new uniform *Helleborus* plants with unique and attractive plant habit, leaf and flower coloration and tolerance to biotic and abiotic stresses.

The new *Helleborus* plant originated from a cross-pollination conducted by the Inventor in Glandorf, Germany in December, 2015 of a proprietary selection of *Helleborus* niger identified as code number P881, not patented, as the female, or seed, parent and a proprietary selection of *Hel-*

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leborus x hybridus identified as code number O1612, not patented, as the male, or pollen, parent. The new Helleborus plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated cross-pollination grown in a controlled greenhouse environment in Glandorf, Germany in December, 2017.

Asexual reproduction of the new *Helleborus* plant by in vitro axillary meristem culture in a controlled environment in Glandorf, Germany since April, 2018 has shown that the unique features of this new *Helleborus* plant are stable and reproduced true to type in successive generations.

#### SUMMARY OF THE INVENTION

Plants of the new *Helleborus* 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 'HL 1028'.

These characteristics in combination distinguish 'HL 1028' as a new and distinct *Helleborus* plant:

- 1. Upright to somewhat outwardly spreading and mounded plant habit.
- 2. Moderately vigorous to vigorous growth habit.
- 3. Dark green-colored leaflets with lighter green-colored venation.
- 4. Freely flowering habit.
- 5. White and purplish red-colored flowers.
- 6. Good garden performance.

Plants of the new *Helleborus* differ from plants of the female parent selection in the following characteristics:

1. Leaflets of plants of the new *Helleborus* are darker green in color than leaflets of plants of the female parent selection.

2. Flowers of plants of the new *Helleborus* are darker in color than flowers of plants of the female parent selection.

Plants of the new *Helleborus* differ from plants of the male parent selection in the following characteristics:

- 1. Leaflets of plants of the new *Helleborus* are darker green in color than leaflets of plants of the male parent selection.
- 2. Flowers of plants of the new *Helleborus* are darker in color than flowers of plants of the male parent selection.

Plants of the new *Helleborus* can also be compared to plants of Helleborus niger 'COSEH210', disclosed in U.S. Plant Pat. No. 21,048. In side-by-side comparisons, plants of 15 Plant description: the new Helleborus differ primarily from plants of 'COSEH210' in the following characteristics:

- 1. Plants of the new *Helleborus* have larger leaves than plants of 'COSEH210'.
- 2. Plants of the new *Helleborus* have larger flowers than 20 plants of 'COSEH210'.
- 3. Flowers of plants of the new *Helleborus* are white and purplish red in color whereas flowers of plants of 'COSEH210' are white in color.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new *Helleborus* plant showing the colors as true as it is reasonably possible to obtain in colored 30reproductions 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 *Helleborus* plant.

The photograph on the first sheet (FIG. 1) is a side <sup>35</sup> perspective view of a typical flowering plant of 'HL 1028' grown in a container.

The photograph on the second sheet (FIG. 2) is a close-up view of a typical flower and flower buds of 'HL 1028'.

#### DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown dur- 45 ing the autumn in 17-cm containers in a glass-covered greenhouse in Glandorf, Germany and under cultural practices typical of commercial *Helleborus* production. During the production of the plants, day temperatures ranged from 12C to 32C and night temperatures ranged from 5C to 12C. 50 Plants were 48 weeks old when the photographs were taken and 14 months old when the description was 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 signifi- 55 cance are used.

Botanical classification: *Helleborus niger* X *Helleborus* x hybridus 'HL 1028'.

### Parentage:

Female, or seed, parent.—Proprietary selection of Helleborus niger identified as code number P881, not patented.

Male, or pollen, parent.—Proprietary selection of Helleborus x hybridus identified as code number O1612, 65 not patented.

Propagation:

Type.—In vitro axillary meristem culture.

Time to initiate roots, winter.—About 55 days at temperatures about 12C.

Time to produce a rooted young plant, winter.—About 170 days at temperatures ranging from about 4C to 15C.

Root description.—Thick to thin, fleshy; typically white to brownish 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.—Low branching; sparse.

Plant and growth habit.—Herbaceous perennial; upright to somewhat outwardly spreading and mounding plant habit with flowers held slightly above to well above the foliar plane; plant shape, flattened globular; moderately vigorous to vigorous growth habit and moderate growth rate.

Plant height, soil level to top of foliar plane.—About 26.1 cm.

Plant height, soil level to top of flowers.—About 49.6 cm.

Plant diameter (area of spread).—About 54.7 cm. Leaf description:

Arrangement.—Leaves arranged in a basal rosette; leaves palmately compound with typically five, or occasionally, seven, leaflets per leaf.

Leaf length.—About 15.9 cm.

Leaf width.—About 17.3 cm.

Leaflet length.—About 11 cm.

Leaflet width.—About 5.8 cm.

Leaf shape.—Palmate; roughly reniform in outline.

Leaflet shape.—Elliptic to obovate.

Leaflet apex.—Acute.

Leaflet base.—Attenuate.

Leaflet margin.—Serrate; moderately and coarsely undulate.

Leaflet texture and luster, upper surface.—Smooth, glabrous; coriaceous and tough; glossy.

Leaflet texture and luster, lower surface.—Smooth, glabrous; coriaceous and tough; slightly glossy.

Leaflet venation pattern.—Pinnate and reticulate.

Leaflet color.—Developing leaflets, upper surface: Close to 137A; at the base, close to 187A. Developing leaflets, lower surface: Close to a blend of 146B and 147B; midvein, close to 183A. Fully developed leaflets, upper surface: Darker than a blend of 139A and 147A; at the base, slightly tinged with close to 200B; venation, close to 144B. Fully developed leaflets, lower surface: Close to 147B; venation, close to 146D.

*Petioles.*—Length: About 18 cm. Diameter: About 5.5 mm by 6.5 mm. Strength: Strong. Texture and luster, upper and lower surfaces: Smooth, glabrous; slightly glossy. Color, upper surface: Close to 146C; sparsely to moderately covered with fine dots, close to N186C and 187A. Color, lower surface: Close to 144B; if present, sparsely to moderately covered with fine dots, close to 187B and 187C.

#### Flower description:

Flower shape and habit.—Single rotate bowl-shaped flowers arranged in panicles; freely flowering habit with about four to seven flowers per inflorescence

and about 35 flowers and flower buds per plant; flowers face mostly outwardly and nodding.

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Fragrance.—None detected.

Natural flowering season.—Plants begin flowering about ten months after planting; plants flower natu-5 rally from late autumn into the winter in Germany. Flower longevity on the plant.—About ten days; sepals persistent, other flower parts are not persistent.

Flower buds.—Length: About 2.4 cm. Diameter: About 1.6 cm. Shape: Ovate. Texture and luster: Smooth, 10 glabrous; matte. Color: Close to 150D; towards the apex, tinged with close to 187D; venation, close to 59A to 59B.

Inflorescence height (including peduncle).—About 45 cm.

Inflorescence diameter.—About 18.2 cm.

Flower diameter.—About 10.3 cm.

Flower depth.—About 4.7 cm.

Petals.—All petals are transformed into nectaries.

Sepals.—Quantity and arrangement: About five, or 20 occasionally, six or seven, arranged in a single whorl. Length: About 6.1 cm. Width: About 5.3 cm. Shape: Broadly ovate; slightly concave. Apex: Broadly and bluntly acute. Base: Cuneate to shallowly truncate. Margin: Entire; not undulate. Texture and luster, 25 upper surface: Smooth, glabrous; matte. Texture and luster, lower surface: Smooth, glabrous; matte to slightly glossy. Color: When opening, upper surface: Close to N155B and 186B to 186D; venation, close to 70C. When opening, lower surface: Close to 30 NN155B and 186B to 186D; venation, close to 61A. Fully opened, upper surface: Close to 155A and 186A to 186D; towards the apex, close to 146A to 146B; towards the base, close to 144B and 146D; venation, similar to lamina colors; color does not 35 change with subsequent development. Fully opened, lower surface: Close to 155A, 157C to 157D and 186A to 186C; towards the apex, close to 146A to 146B; towards the base, close to 59D; venation, close to 60A and 60B; color does not change with 40 subsequent development.

Flower bracts.—Quantity per flower: Typically one. Length: About 7.7 cm. Width: About 5.2 cm. Shape: Ovate to broadly obovate. Apex: Acute to three-lobed. Base: Truncate to broadly cuneate. Margin: 45 Mostly entire; distally, occasionally serrate; coarsely undulate. Color, upper surface: Close to a blend of NN137A and 139A; towards the base, close to 144B; midvein, tinged with close to 187C. Color, lower surface: Close to a blend of 147A and 147B; mid-50 vein, close to N186C.

Peduncles.—Length: About 33.9 cm. Diameter: About 8 mm. Aspect: About 17.5 degrees from vertical.

Strength: Strong. Texture and luster: Smooth, glabrous; moderately glossy. Color: Close to 144B; sparsely to moderately covered with fine dots, close to 187A and 187B.

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Pedicels.—Length: About 3.5 cm. Diameter: About 3.5 mm. Aspect: About 25 degrees from peduncle axis. Strength: Moderately strong. Texture and luster: Smooth, glabrous; moderately glossy. Color: Close to a blend of N186C and 187A; sparsely covered with fine dots, close to 150D.

Reproductive organs.—Stamens: Quantity per flower: About 120. Filament length: About 1.7 cm. Filament color: Close to NN155D. Anther shape: Double and broadly reniform; basifixed. Anther size: About 2.5 mm by 3 mm. Anther color: Close to 154C. Pollen amount: Sparse to moderate. Pollen color: Close to 4D to lighter than 4D. Pistils: Quantity per flower: About six to eight. Pistil length: About 1.1 cm. Stigma diameter: About 0.3 mm. Stigma shape: Club-shaped. Stigma color: Close to 157D. Style length: About 1.05 cm. Style color: Close to 186A. Ovary color: Close to 150C. Nectaries (transformed petals): Quantity per flower: About 13 to 16. Length: About 1.5 cm. Diameter: About 5 mm. Shape: Tubular, flattened; apices, obtuse. Texture and luster, inner and outer surfaces: Smooth, glabrous; slightly glossy. Color, immature, inner and outer surfaces: Close to 144C; towards the apex, close to 145B; at the base, close to 146C. Color, mature, inner and outer surfaces: Close to N144A; towards the apex, close to 150B; at the base, close to 152C; venation, similar to lamina colors; with subsequent development, color becoming closer to 151A, towards the apex, closer to 151C and at the base, closer to 152B. Seeds and fruits: To date, seed and fruit development have not been observed on plants of the new *Helle*borus.

Garden performance: Plants of the new *Helleborus* have been observed to have good garden performance and to tolerate rain, wind, high temperatures about 35C and to be suitable for USDA Hardiness Zones 5 through 9.

Pathogen & pest resistance: To date, plants of the new *Helleborus* have not been observed to be resistant to pathogens and pests common to *Helleborus* plants.

It is claimed:

1. A new and distinct *Helleborus* plant named 'HL 1028' as illustrated and described.

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FIG. 1



FIG. 2