

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

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(54) **HELLEBORUS PLANT NAMED ‘COSEH 1040’**

(50) Latin Name: *Helleborus niger*
Varietal Denomination: **COSEH 1040**

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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 137 days.

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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Helleborus* plant named ‘COSEH 1040’, characterized by its upright and mounding plant habit; uniform and freely flowering habit; dark green-colored leaves; freely flowering habit; single white-colored flowers; and good garden performance.

2 Drawing Sheets

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Botanical designation: *Helleborus niger*.
Cultivar denomination: ‘COSEH 1040’.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Helleborus* plant, botanically known as *Helleborus niger* and hereinafter referred to by the name ‘COSEH 1040’.

The new *Helleborus* plant is a product of a planned breeding program 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 resistance to pests.

The new *Helleborus* plant originated from a cross-pollination conducted by the Inventor in Glandorf, Germany in November, 2006 of two unnamed proprietary seedling selections of *Helleborus niger*, not patented. 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 November, 2008.

Asexual reproduction of the new *Helleborus* plant by divisions in a controlled greenhouse environment in Glandorf, Germany since March, 2009 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 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 ‘COSEH 1040’. These characteristics in combination distinguish ‘COSEH 1040’ as a new and distinct *Helleborus* plant:

1. Upright and mounding plant habit.
2. Uniform and freely flowering habit.
3. Dark green-colored leaves.

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4. Freely flowering habit.
5. Single white-colored flowers.
6. Good garden performance.

Compared to plants of the parent selections, plants of the new *Helleborus* are more uniformly mounded and are more freely flowering.

Plants of the new *Helleborus* can be compared to plants of *Helleborus niger* ‘COSEH 230’, disclosed in U.S. Plant Pat. No. 21,242. In side-by-side comparisons conducted in Glandorf, Germany, plants of the new *Helleborus* differed primarily from plants of ‘COSEH 230’ in the following characteristics:

1. Plants of the new *Helleborus* flowered in November/December whereas plants of ‘COSEH 230’ flowered in January/February.
2. Plants of the new *Helleborus* had single-type flowers whereas plants of ‘COSEH 230’ had semi-double-type flowers.

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 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 *Helleborus* plant.

The photograph on the first sheet comprises a side perspective view of a typical flowering plant of ‘COSEH 1040’ grown in a container.

The photograph on the second sheet is a close-up view of a typical flowering plant of ‘COSEH 1040’.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown during the late autumn in 13-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 12° C. to 32° C. and night temperatures ranged from 3° C. to 18° C. Plants were 14 months old when the photographs and the description were taken. In the following description, color references are made to The Royal Horticultural Society 5 Colour Chart, 2007 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Helleborus niger* 'COSEH 1040'.

Parentage:

Female, or seed, parent.—Unnamed proprietary seed-ling selection of *Helleborus niger*, not patented. 10

Male, or pollen, parent.—Unnamed proprietary seed-ling selection of *Helleborus niger*, not patented.

Propagation:

Type.—By tissue culture. 15

Time to initiate roots, winter.—About two months at temperatures about 12° C.

Time to produce a rooted young plant, winter.—About six months at temperatures about 4° C. to 15° C.

Root description.—Thick to thin, fleshy; white to brown 20 in color.

Rooting habit.—Sparse.

Plant description:

Plant and growth habit.—Herbaceous perennial; upright and mounding plant habit with flowers held 25 just above the foliar plane; plant shape is roughly broadly ovate; low vigor to moderately vigorous growth habit.

Plant height.—About 22.5 cm.

Plant diameter (area of spread).—About 24.8 cm. 30

Foliage description:

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

Leaf length.—About 10.1 cm. 35

Leaf width.—About 12.6 cm.

Leaflet length.—About 6.9 cm.

Leaflet width.—About 3.3 cm.

Leaf shape.—Palmate; orbicular in outline.

Leaflet shape.—Elliptic. 40

Leaflet apex.—Broadly acute.

Leaflet base.—Cuneate.

Leaflet margin.—Serrate.

Leaflet texture, upper and lower surfaces.—Smooth, glabrous; leathery. 45

Leaflet venation pattern.—Pinnate.

Leaflet color.—Developing leaves, upper surface: Close to 137B. Developing leaves, lower surface: Between 138B and 147C. Fully developed leaves, upper surface: Darker than between N137A and 147A; venation, close to 144B, at the base, tinged with close to 200C. Fully developed leaves, lower surface: Close to 147B; venation, close to 144B to 144C. 50

Petioles.—Length: About 9 cm. Diameter: About 6 mm.

Texture, upper and lower surfaces: Smooth, glabrous. 55

Color, upper and lower surfaces: Close to 144A to 144B, slightly to moderately dotted with close to 183C to 183D.

Flower description:

Flower shape and habit.—Single rotate flowers 60 arranged singly or in pairs; freely and uniform flowering habit with about 30 flowers and flower buds developing per plant; flowers facing outwardly to upright.

Fragrance.—None detected.

Natural flowering season.—Plants begin flowering about ten months after planting; plants flower from late autumn into the winter in Germany.

Flower longevity on the plant.—About ten days; flowers not persistent.

Flower buds.—Length: About 1.9 cm. Diameter: About 1.2 cm. Shape: Broadly ovate. Color: Close to NN155B; towards the base, close to 157D.

Flower diameter.—About 6.7 cm.

Flower depth (height).—About 2 cm.

Petals.—Transformed into nectaries.

Sepals.—Quantity and arrangement: Five or occasionally six, arranged in a single whorl. Length: About 3.9 cm. Width: About 3.4 cm. Shape: Broadly ovate. Apex: Obtuse. Base: Broadly cuneate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color: When opening, upper and lower surfaces: Close to NN155D. Fully opened, upper and lower surfaces: Close to NN155C; color becoming closer to 145C with development.

Peduncles.—Length: About 18 cm. Diameter: About 5 mm. Aspect: About 15° from vertical. Strength: Strong. Texture: Smooth, glabrous. Color: Close to 144B to 144C, slightly to moderately dotted with close to 184A to 184B.

Pedicels.—Length: About 5.4 cm. Diameter: About 3 mm. Aspect: About 40° from peduncle axis. Strength: Moderately strong. Texture: Smooth, glabrous. Color: Close to 144B to 144C, slightly to moderately dotted with close to 184A to 184B.

Reproductive organs.—Stamens: Quantity per flower: About 100. Filament length: About 1.2 cm. Filament color: Close to NN155D. Anther shape: Reniform. Anther length: About 2 mm. Anther color: Close to 3B. Pollen amount: Abundant. Pollen color: Close to 8B to 8C. Pistils: Quantity per flower: About ten. Pistil length: About 8 mm. Stigma shape: Club-shaped. Stigma color: Close to 155A. Style length: About 7 mm. Style color: Close to NN155B. Ovary color: Close to 150D. Nectaries (transformed petals): Quantity per flower: About 16. Length: About 1 cm. Diameter: About 3.5 mm. Shape: Narrow triangular, flattened tubular. Color, immature, inner and outer surfaces: Close to N144D. Color, mature, inner and outer surfaces: Close to N144D; towards the apex, close to 5B; with development, color becomes closer to 154D and 1D.

Seeds and fruits.—Seed and fruit development have not been observed on plants of the new *Helleborus*.

Garden performance: Plants of the new *Helleborus* have been observed to have good garden performance and to tolerate rain, wind and high temperatures about 35° C. and to be hardy to USDA Hardiness Zone 5.

Pathogen & pest resistance: 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 'COSEH 1040' as illustrated and described.

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