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Heuger

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(54) **HELLEBORUS PLANT NAMED ‘COSEH 5700’**

(50) Latin Name: *Helleborus niger* X *Helleborus* x
hybridus
Varietal Denomination: **COSEH 5700**

(71) Applicant: **Josef Heuger**, Glandorf (DE)

(72) Inventor: **Josef Heuger**, Glandorf (DE)

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patent is extended or adjusted under 35
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(52) **U.S. Cl.**

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See application file for complete search history.

Primary Examiner — Susan McCormick Ewoldt

(74) *Attorney, Agent, or Firm* — C. A. Whealy

(57)

ABSTRACT

A new and distinct cultivar of *Helleborus* plant named
‘COSEH 5700’, characterized by its compact, upright and
mounded plant habit; moderately vigorous growth habit;
dark green-colored leaves; freely flowering habit; single red
purple-colored flowers; and good garden performance.

2 Drawing Sheets

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

Cultivar denomination: ‘COSEH 5700’.

CROSS-REFERENCED TO CLOSELY-RELATED
APPLICATIONS

Title: *Helleborus* Plant Named ‘COSEH 5600’

Applicant: Josef Heuger

Filed: Concurrently with the instant application U.S. Plant
patent application Ser. No. 16/602,791

Title: *Helleborus* Plant Named ‘COSEH 5900’

Applicant: Josef Heuger

Filed: Concurrently with the instant application U.S. Plant
patent application Ser. No. 16/602,735

Title: *Helleborus* Plant Named ‘COSEH 6900’

Applicant: Josef Heuger

Filed: Concurrently with the instant application U.S. Plant
patent application Ser. No. 16/602,736

Title: *Helleborus* Plant Named ‘COSEH 7100’

Applicant: Josef Heuger

Filed: Concurrently with the instant application U.S. Plant
patent application Ser. No. 16/602,734

Title: *Helleborus* Plant Named ‘COSEH 7500’

Applicant: Josef Heuger

Filed: Concurrently with the instant application U.S. Plant
patent application Ser. No. 16/602,737

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 ‘COSEH 5700’.

The new *Helleborus* plant is a product of a planned
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 toler-
ance to biotic and abiotic stress.

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The new *Helleborus* plant originated from a cross-pollina-
tion conducted by the Inventor in Glandorf, Germany in
November, 2011 of a unnamed selection of *Helleborus*
niger, not patented, as the female, or seed parent and an
unnamed selection of *Helleborus* x *hybridus*, 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 November, 2013.

Asexual reproduction of the new *Helleborus* plant by
divisions in a controlled environment in Glandorf, Germany
since February, 2014 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 tem-
perature 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
5700’. These characteristics in combination distinguish
‘COSEH 5700’ as a new and distinct *Helleborus* plant:

1. Compact, upright and mounded plant habit.
2. Moderately vigorous growth habit.
3. Dark green-colored leaves.
4. Freely flowering habit.
5. Single red purple-colored flowers.
6. Good garden performance.

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

1. Plants of the new *Helleborus* have fewer leaves than
plants of the female parent selection.

2. Plants of the new *Helleborus* have red purple-colored flowers whereas plants of the female parent selection have white-colored flowers.

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

1. Plants of the new *Helleborus* are taller than plants of the male parent selection.
2. Leaves of plants of the new *Helleborus* are lighter green in color than leaves of plants of the male parent selection.

Plants of the new *Helleborus* can be compared to plants of *Helleborus niger* X *Helleborus x hybridus* 'COSEH 5600', disclosed in a U.S. Plant Patent application filed concurrently. Plants of the new *Helleborus* differ primarily from plants of 'COSEH 5600' in flower color as plants of the new *Helleborus* have red purple-colored flowers whereas plants of 'COSEH 5600' have yellow green, white and purple-colored flowers.

Plants of the new *Helleborus* can be compared to plants of *Helleborus niger* X *Helleborus x hybridus* 'COSEH 5900', disclosed in a U.S. Plant Patent application filed concurrently. Plants of the new *Helleborus* differ primarily from plants of 'COSEH 5900' in flower color as plants of the new *Helleborus* have red purple-colored flowers whereas plants of 'COSEH 5900' have white-colored flowers.

Plants of the new *Helleborus* can be compared to plants of *Helleborus niger* X *Helleborus x hybridus* 'COSEH 6900', disclosed in a U.S. Plant Patent application filed concurrently. Plants of the new *Helleborus* differ primarily from plants of 'COSEH 6900' in flower color as plants of the new *Helleborus* have red purple-colored flowers whereas plants of 'COSEH 6900' have light yellow green-colored flowers.

Plants of the new *Helleborus* can be compared to plants of *Helleborus niger* X *Helleborus x hybridus* 'COSEH 7100', disclosed in a U.S. Plant Patent application filed concurrently. Plants of the new *Helleborus* differ primarily from plants of 'COSEH 7100' in plant and growth habit as plants of the new *Helleborus* are more compact than and not as vigorous as plants of 'COSEH 7100'.

Plants of the new *Helleborus* can be compared to plants of *Helleborus niger* X *Helleborus x hybridus* 'COSEH 7500', disclosed in a U.S. Plant Patent application filed concurrently. Plants of the new *Helleborus* differ primarily from plants of 'COSEH 7500' in flower color as plants of the new *Helleborus* have red purple-colored flowers whereas plants of 'COSEH 7500' have white to light yellow green-colored flowers.

Plants of the new *Helleborus* can also be compared to plants of *Helleborus niger* X *Helleborus x hybridus* 'LEM 100', disclosed in U.S. Plant Pat. No. 25,646. In side-by-side comparisons, plants of the new *Helleborus* differ primarily from plants of 'LEM 100' in the following characteristics:

1. Leaves of plants of the new *Helleborus* are lighter green in color than leaves of plants of 'LEM 100'.
2. Plants of the new *Helleborus* flower earlier than plants of 'LEM 100'.

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 (FIG. 1 of 2) is a side perspective view of a typical flowering plant of 'COSEH 5700' grown in a container.

The photograph on the second sheet (FIG. 2 of 2) is a close-up view of typical flowers and leaves of 'COSEH 5700'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown during December 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 12° C. to 32° C. and night temperatures ranged from 5° C. to 12° 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 Colour Chart, 2015 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Helleborus niger* X *Helleborus x hybridus* 'COSEH 5700'.

Parentage:

Female, or seed, parent.—Unnamed selection of *Helleborus niger*, not patented.

Male, or pollen, parent.—Unnamed selection of *Helleborus x hybridus*, not patented.

Propagation:

Type.—In vitro axillary meristem culture.

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

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

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

Plant description:

Plant and growth habit.—Herbaceous perennial; compact, upright and mounding plant habit with flowers held within and above the foliar plane; plant shape, roughly flattened globular; moderately vigorous growth habit and low to moderate growth rate.

Plant height, soil level to top of foliar plane.—About 21.7 cm.

Plant height, soil level to top of flowers.—About 23.9 cm.

Plant diameter (area of spread).—About 32 cm.

Leaf description:

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

Leaf length.—About 14.6 cm.

Leaf width.—About 16.7 cm.

Leaflet length.—About 9.6 cm.

Leaflet width.—About 5.9 cm.

Leaf shape.—Palmate; reniform in outline.

Leaflet shape.—Broadly elliptic to obovate.

Leaflet apex.—Acute to broadly acute.

Leaflet base.—Attenuate.

Leaflet margin.—Deeply serrate; moderately undulate.

Leaflet texture and luster, upper surface.—Smooth, glabrous; leathery; moderately glossy. 5

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

Leaflet venation pattern.—Pinnate.

Leaflet color.—Developing leaflets, upper surface:

Close to NN137B and proximally, tinged with close 10
to 187A. Developing leaflets, lower surface: Close to
between 138B and 147B; venation, close to 178B.

Fully developed leaflets, upper surface: Darker than
between 147A and N189A; venation, close to 147B.

Fully developed leaflets, lower surface: Close to 15
144A to 144B; venation, close to 144B.

Petioles.—Length: About 8.4 cm. Diameter: About 8

mm to 9 mm. Strength: Strong. Texture and luster,
upper and lower surfaces: Smooth, glabrous; slightly

glossy. Color, upper and lower surfaces: Close to 20
144A; proximally, close to 176A to 176B.

Flower description:

Flower shape and habit.—Single rotate flowers; flow-
ers slightly to moderately cupped; arranged solitary 25
or in clusters with about two flowers each; freely
flowering habit with about 24 flowers developing per
plant; flowers face mostly outwardly to slightly
upright and slightly nodding.

Fragrance.—None detected.

Natural flowering season.—Plants begin flowering 30
about ten months after planting; plants flower from
the late autumn into the winter in Germany.

Flower longevity on the plant.—About three to four
months; sepals persistent, other flower parts are not 35
persistent.

Flower buds.—Length: About 2.5 cm. Diameter: About
1.8 cm. Shape: Broadly ovate. Texture and luster:
Smooth, glabrous; matte. Color: Close to 186C;
venation, close to 64B.

Inflorescence height.—About 9.9 cm. 40

Inflorescence diameter.—About 9.6 cm.

Flower diameter.—About 9.6 cm by 9.6 cm.

Flower depth (height).—About 3.1 cm.

Petals.—All petals are transformed into nectaries.

Sepals.—Quantity and arrangement: About five, 45

arranged in a single whorl. Length: About 5.3 cm.

Width: About 5.3 cm. Shape: Broadly ovate, mod-
erately concave. Apex: Obtuse. Base: Truncate. Mar-
gin: Entire; moderately undulate. Texture and luster,

upper surface: Smooth, glabrous; matte. Texture and 50

luster, lower surface: Smooth, glabrous; slightly

glossy. Color: When opening, upper surface: Close

to 186D to lighter than 186D densely covered with

fine dots, close to 64A to 64B and 186A; venation,

similar to lamina color. When opening, lower sur- 55

face: Close to 186D to lighter than 186D densely

covered with fine dots, close to 64A to 64B and

186A; venation, similar to lamina color. Fully

opened, upper surface: Close to 75C to 75D densely

covered with fine dots, close to 61A and 187D; 60

venation, similar to lamina color; with development,
close to 150D densely covered with fine dots, close
to 64C. Fully opened, lower surface: Close to 75B to
75C densely covered with fine dots, close to 59C and
61A; venation, similar to lamina color; with devel-
opment, close to 150D densely covered with fine
dots, close to 64B to 64C.

Flower bracts.—Quantity per flower: Typically one.

Length: About 3 cm. Width: About 2.2 cm. Shape:

Broadly ovate. Apex: Broadly acute. Base: Truncate.

Margin: Finely serrate; moderately undulate. Color,

upper surface: Close to 137B to 137C; venation,

similar to lamina. Color, lower surface: Close to

138A to 138B; venation, close to 187A.

Peduncles.—Length: About 17 cm. Diameter: About 7

mm to 11 mm. Aspect: About 10° from vertical.

Strength: Strong. Texture and luster: Smooth, gla-
brous; moderately glossy. Color: Close to 144B;

moderately to heavily covered with fine dots, close

to 183A to 183B.

Pedicels.—Length: About 4.3 cm. Diameter: About 3.5

mm. Aspect: Mostly upright. Strength: Moderately

strong. Texture and luster: Smooth, glabrous; mod-
erately glossy. Color: Close to 144B heavily covered

with fine dots, close to between N186C and 200A.

Reproductive organs.—Stamens: Quantity per flower:

About 120. Filament length: About 1.6 cm. Filament

color: Close to 186A. Anther shape: Double and

broadly reniform; basifixed. Anther size: About 2

mm by 2 mm. Anther color: Close to 4B. Pollen

amount: Moderate. Pollen color: Close to 4D. Pistils:

Quantity per flower: About five. Pistil length: About

8 mm. Stigma diameter: About 0.3 mm. Stigma

shape: Club-shaped. Stigma color: Close to 150D.

Style length: About 7.5 mm. Style color: Close to

N186C. Ovary color: Close to 150D. Nectaries

(transformed petals): Quantity per flower: About 14.

Length: About 1.4 cm. Diameter: About 6 mm.

Shape: Tubular, flattened. Texture and luster, inner

and outer surfaces: Smooth, glabrous; slightly

glossy. Color, immature, inner and outer surfaces:

Close to 151D and towards the base, close to 144B.

Color, mature, inner and outer surfaces: Close to

146D, distally, close to 151D and proximally, close

to 200B; with development, close to 146C, distally,

close to 13B and proximally, close to 152C.

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 35° C. 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 ‘COSEH

5700’ as illustrated and described.

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FIG. 1



FIG. 2

