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- (54) **ECHINACEA PLANT NAMED 'APECSSIYE'**
- (50) Latin Name: *Echinacea hybrida*
Varietal Denomination: Apecssiye
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(57) **ABSTRACT**

A new and distinct cultivar of *Echinacea* plant named 'Apecssiye', characterized by its upright and relatively compact plant habit; moderately vigorous growth habit; freely branching habit; strong flowering stems; numerous large single-type inflorescences with bright yellow-colored ray florets and yellow orange-colored receptacle spines; and good garden performance.

2 Drawing Sheets

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Botanical designation: *Echinacea hybrida*.

Cultivar denomination: 'APECSSIYE'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Echinacea* plant, botanically known as *Echinacea hybrida*, and hereinafter referred to by the name 'Apecssiye'.⁵

The new *Echinacea* plant is a product of a planned breeding program conducted by the Inventor in Andijk and Hazerswoude-Dorp, The Netherlands. The objective of the breeding program is to develop new vigorous *Echinacea* plants with unique and attractive ray floret coloration.¹⁰

The new *Echinacea* plant originated from an open-pollination in July, 2013 in Andijk, The Netherlands of a proprietary selection of *Echinacea hybrida* identified as code number 009-12-001, not patented, as the female, or seed, parent with an unknown selection of *Echinacea hybrida* as the male, or pollen, parent. The new *Echinacea* plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated open-pollination grown in a controlled greenhouse environment in Hazerswoude-Dorp, The Netherlands in August, 2014.¹⁵

Asexual reproduction of the new *Echinacea* plant by tissue culture in a controlled environment in Andijk, The Netherlands since 2015 has shown that the unique features of this new *Echinacea* plant are stable and reproduced true to type in successive generations.²⁰

SUMMARY OF THE INVENTION

Plants of the new *Echinacea* have been observed under all possible combinations of environmental conditions and cultural practices. The phenotype may vary somewhat with

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vibrations 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 'Apecssiye'. These characteristics in combination distinguish 'Apecssiye' as a new and distinct *Echinacea* plant:⁵

1. Upright and relatively compact plant habit.
2. Moderately vigorous growth habit.
3. Freely branching habit.
4. Strong flowering stems.
5. Numerous large single-type inflorescences with bright yellow-colored ray florets and yellow orange-colored receptacle spines.
6. Good garden performance.

Plants of the new *Echinacea* can be compared to plants of the female parent selection. Plants of the new *Echinacea* differ primarily from plants of the female parent selection in the following characteristics:¹⁰

1. Plants of the new *Echinacea* are not as compact as plants of the female parent selection.
2. Plants of the new *Echinacea* and the female parent selection differ in ray floret color as plants of the female parent selection have creamy yellow-colored ray florets.¹⁵

Plants of the new *Echinacea* can be compared to plants of *Echinacea hybrida* 'Chiquita', disclosed in U.S. Plant Pat. No. 24,505. In side-by-side comparisons, plants of the new *Echinacea* differ primarily from plants of 'Chiquita' in the following characteristics:²⁰

1. Plants of the new *Echinacea* are not as compact as plants of 'Chiquita'.²⁵
2. Inflorescences of plants of the new *Echinacea* have more ray florets than inflorescences of plants of 'Chiquita'.³⁰

3. Plants of the new *Echinacea* and 'Chiquita' differ in ray floret color as plants of 'Chiquita' have light yellow-colored ray florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

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The accompanying photographs illustrate the overall appearance of the new *Echinacea* 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 *Echinacea* plant.

The photograph on the first sheet is a side perspective view of a typical flowering plant of 'Apecssiye' grown in a container.

The photographs on the second sheet are close-up views of typical inflorescences (upper photograph) and typical leaves (lower photograph) of 'Apecssiye'.

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DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations and measurements describe plants grown during the summer in 17-cm containers in an outdoor nursery in Mijdrecht, The Netherlands and under cultural practices typically used in commercial *Echinacea* production. During the production of the plants, day temperatures ranged from 18° C. to 30° C. and night temperatures ranged from 8° C. to 18° C. Plants were pinched eight weeks after planting and were six months 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.

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Botanical classification: *Echinacea hybrida* 'Apecssiye'.

Parentage:

Female parent.—Proprietary selection of *Echinacea hybrida* identified as code number 009-12-001, not patented.

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Male parent.—Unknown selection of *Echinacea hybrida*, not patented.

Propagation:

Type.—By tissue culture.

Time to initiate roots, summer.—About twelve days at temperatures about 20° C.

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Time to initiate roots, winter.—About 16 days at temperatures about 20° C.

Time to produce a rooted young plant, summer.—About 36 days at temperatures about 18° C.

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Time to produce a rooted young plant, winter.—About 42 days at temperatures about 18° C.

Root description.—Thick, fleshy; 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.

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Rooting habit.—Moderately freely branching; sparse.

Plant description:

Plant form and growth habit.—Herbaceous perennial; upright and relatively compact plant habit, narrow inverted triangle; freely basal branching habit with about ten lateral branches developing per plant; moderately vigorous growth habit.

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Plant height.—About 50.3 cm.

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Plant diameter or spread.—About 50.3 cm.

Lateral branches.—Length: About 33.1 cm. Diameter: About 5 mm. Internode length: About 6.4 cm. Aspect: Erect to about 15° from vertical. Strength: Strong. Texture and luster: Smooth, glabrous; glossy. Color: Close to 144A.

Leaf description:

Arrangement.—Alternate, simple.

Length.—About 13.9 cm.

Width.—About 5.1 cm.

Shape.—Ovate to narrowly ovate.

Apex.—Acute.

Base.—Attenuate.

Margin.—Entire; slightly undulate.

Texture and luster, upper surface.—Moderately pubescent, strigose and slightly rough; moderately glossy.

Texture and luster, lower surface.—Moderately pubescent, strigose and slightly rough; slightly glossy.

Venation pattern.—Pinnate.

Color.—Developing leaves, upper surface: Close to 143B. Developing leaves, lower surface: Close to 144A. Fully expanded leaves, upper surface: Close to NN137A; venation, close to 144A. Fully expanded leaves, lower surface: Close to 137C; venation, close to 144B.

Petioles, basal leaves.—Length: About 9.6 cm. Diameter: About 2 mm by 3 mm. Texture and luster, upper and lower surfaces: Glabrous; moderately glossy. Color, upper surface: Center, close to 144A; towards the margins, close to 146A. Color, lower surface: Close to 144A.

Inflorescence description:

Appearance.—Large single-type inflorescences with ray and disc florets arranged on a capitulum; inflorescences positioned upright above the foliar plane on mostly upright and strong peduncles.

Flowering habit.—Freely flowering habit with about 20 inflorescences per plant.

Fragrance.—Faintly; sweet, slightly acidic and pleasant.

Time to flower.—Plants flower continuously from early July to late November in The Netherlands.

Inflorescence longevity.—Inflorescences maintain good substance for about three weeks on the plant; inflorescences persistent.

Inflorescence buds.—Height: About 2 cm. Diameter: About 2.5 cm. Shape: Flattened globular. Color: Close to 141A; ray florets, close to 154C, towards the apex, close to 154B.

Inflorescence size.—Diameter: About 9.7 cm. Depth (height): About 4.3 cm. Disc diameter: About 3.6 cm.

Receptacles.—Height: About 9 mm. Diameter: About 1.1 cm. Color: Close to 155D.

Ray florets.—Quantity and arrangement: About 30 arranged in about two whorls at the base of the receptacle. Length: About 4.2 cm. Width: About 9.5 mm. Shape: Oblanceolate. Apex: Shallowly cleft to praemorse. Base: Cuneate. Margin: Entire. Texture and luster, upper surface: Glabrous; velvety and matte. Texture and luster, lower surface: Glabrous; slightly velvety and slightly glossy. Aspect: Horizontal to slightly downward, about 20° from horizontal. Color: When opening, upper and lower surfaces: Close to 14A. Fully opened, upper surface: Close to 9A; with development, color becoming closer to 6B. Fully opened, lower surface: Close to

2C; with development, color becoming closer to 9D with venation, close to 150B.

Disc florets.—Quantity and arrangement: About 400 per inflorescence, arranged spirally at the center of the inflorescence. Length: About 1 cm. Diameter: ⁵ About 2.5 mm. Shape: Tubular; proximally, 10% free, not fused. Apex: Acute. Base: Fused. Margin: Entire. Texture and luster, inner and outer surfaces: Smooth, glabrous; glossy. Color, when opening, inner and outer surfaces: Apex: Close to 141A. Mid-section: Close to 143C. Base: Close to 144A. Color, fully opened, inner and outer surfaces: Apex: Close to 143A. Mid-section: Close to 143D. Base: Close to 144B. ¹⁰

Receptacle spines.—Quantity: One per disc floret. Shape: Acicular. Apex: Acute. Base: Attenuate. Texture and luster: Smooth, glabrous; glossy. Color: Apex: Close to 17B. Mid-section: Close to 144B. ¹⁵ Base: Close to 144D.

Involucral bracts.—Quantity per inflorescence: About 64 arranged in about three whorls. Length: About 8 mm. Width: About 3 mm. Shape: Ovate to narrowly ovate. Apex: Acute. Base: Cuneate. Margin: Entire. Texture and luster, upper surface: Smooth, glabrous; dull. Texture and luster, lower surface: Mostly glabrous; margins, sparsely pubescent; dull. Color, upper surface: Close to 143B. Color, lower surface: Close to 143C; towards the margins, close to 143B. ²⁰

Peduncles.—Length: About 8.5 cm. Diameter: About 4.5 mm. Strength: Strong. Aspect: Upright to about 20° from vertical. Texture and luster: Smooth, glabrous; moderately glossy. Color: Close to 143C.

Reproductive organs.—Androecium (present on ray and disc florets): Quantity per floret: Five. Filament length: About 3 mm. Filament color: Close to 151D. Anther length: About 3 mm. Anther shape: Lanceolate. Anther color: Close to 202A. Pollen amount: Moderate. Pollen color: Close to 17A. Gynoecium (present only on disc florets): Quantity per floret: One. Pistil length: About 7 mm. Stigma shape: Decurrent, unequal. Stigma color: Close to 153B to 153C. Style length: About 6 mm. Style color: Close to 150D. Ovary color: Close to 150D. Seeds and fruits: Seed and fruit development have not been observed on plants of the new *Echinacea*.

Disease & pest resistance: Plants of the new *Echinacea* have not been shown to be resistant to pathogens and pests common to *Echinacea* plants.

Garden performance: Plants of the new *Echinacea* have exhibited good garden performance and to tolerate rain and wind. Plants of the new *Echinacea* have been observed to tolerate high temperatures of about 35° C. and to be hardy to USDA Hardiness Zones 3 to 4.

It is claimed:

1. A new and distinct *Echinacea* plant named 'Apecssiye' as illustrated and described.

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