US00PP28800P3

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

(10) **Patent No.: US PP28,800 P3**
(45) **Date of Patent: Dec. 26, 2017**

(54) ***ARCTOTIS* PLANT NAMED 'BONARC 1107'**

(50) Latin Name: ***Arctotis hybrida***
Varietal Denomination: **Bonarc 1107**

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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 36 days.

(21) Appl. No.: **14/999,329**

(22) Filed: **Apr. 25, 2016**

(65) **Prior Publication Data**

US 2017/0311507 P1 Oct. 26, 2017

(51) **Int. Cl.**
A01H 5/02 (2006.01)

(52) **U.S. Cl.**
USPC **Plt./263.1**

(58) **Field of Classification Search**
USPC Plt./263.1
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Arctotis* plant named 'Bonarc 1107', characterized by its compact and semi-upright plant habit; freely branching growth habit; relatively small leaves; freely flowering habit; single-type inflorescences with white-colored ray florets; and good garden performance.

1 Drawing Sheet

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Botanical designation: *Arctotis hybrida.*
Cultivar denomination: 'BONARC 1107'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct *Arctotis* plant, botanically known as *Arctotis hybrida* and hereinafter referred to by the name 'Bonarc 1107'.

The new *Arctotis* plant is a product of a planned breeding program conducted by the Inventor in Yellow Rock, New South Wales, Australia. The objective of the breeding program is to create new compact and freely branching *Arctotis* plants that flower early and have attractive ray floret coloration.

The new *Arctotis* plant originated from a cross-pollination conducted by the Inventor in June, 2010 in Yellow Rock, New South Wales, Australia of a proprietary selection of *Arctotis hybrida* identified as code number 09-110, not patented, as the female, or seed, parent with a proprietary selection of *Arctotis hybrida* identified as code number 09-59, not patented, as the male, or pollen, parent. The new *Arctotis* plant was discovered and selected by the Inventor as a single flowering plant within the progeny of the stated cross-pollination in a controlled greenhouse environment in Yellow Rock, New South Wales, Australia on Aug. 11, 2011.

Asexual reproduction of the new *Arctotis* plant by vegetative tip cuttings in a controlled greenhouse environment in Yellow Rock, New South Wales, Australia since August, 2011 has shown that the unique features of this new *Arctotis* plant are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

Plants of the new *Arctotis* plant have not been observed under all possible combinations of environmental conditions and cultural practices. The phenotype may vary somewhat

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with variations in environment 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 'Bonarc 1107'. These characteristics in combination distinguish 'Bonarc 1107' as a new and distinct *Arctotis* plant:

1. Compact and semi-upright plant habit.
2. Freely branching growth habit.
3. Relatively small leaves.
4. Freely flowering habit.
5. Single-type inflorescences with white-colored ray florets.
6. Good garden performance.

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

1. Plants of the new *Arctotis* and the female parent selection differ in ray floret color as plants of the female parent selection have peach-colored ray florets.
2. Plants of the new *Arctotis* have shorter peduncles than plants of the female parent selection.

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

1. Plants of the new *Arctotis* have larger inflorescences than plants of the male parent selection.
2. Plants of the new *Arctotis* and the male parent selection differ in ray floret color as plants of the male parent selection have yellow-colored ray florets.
3. Plants of the new *Arctotis* have shorter peduncles than plants of the male parent selection.

Plants of the new *Arctotis* can be compared to plants of *Arctotis hybrida* 'Archley', disclosed in U.S. Plant Pat. No. 14,667. In side-by-side comparisons, plants of the new *Arctotis* differ primarily from plants of 'Archley' in the following characteristics:

1. Plants of the new *Arctotis* are more compact than and not as upright as plants of 'Archley'.
2. Plants of the new *Arctotis* have smaller leaves than plants of 'Archley'.

3. Plants of the new *Arctotis* and 'Archley' differ in ray floret color as ray florets of 'Archley' have yellow orange-colored ray florets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Arctotis* plant. These photographs show 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 *Arctotis* plant.

The photograph at the top of the sheet is a side perspective view of a typical flowering plant of 'Bonarc 1107' grown in a container.

The photograph at the bottom of the sheet is a close-up view of a typical inflorescence of 'Bonarc 1107'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown during the spring in 20-cm containers in an outdoor nursery in Higashiomi, Shiga, Japan and under cultural practices typical of commercial *Arctotis* production. During the production of the plants, day temperatures ranged from 20° C. to 30° C. and night temperatures ranged from 13° C. to 25° C. Plants were three months old when the photographs were taken and four months old when the detailed description was taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2007 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Arctotis hybrida* 'Bonarc 1107'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Arctotis hybrida* identified as code number 09-110, not patented.

Male, or pollen, parent.—Proprietary selection of *Arctotis hybrida* identified as code number 09-59, not patented.

Propagation:

Type.—Vegetative tip cuttings.

Time to initiate roots, summer.—About ten days at temperatures about 20° C. to 25° C.

Time to initiate roots, winter.—About 17 days at temperatures about 20° C. to 25° C.

Time to produce a rooted young plants, summer.—About three weeks at temperatures about 20° C. to 25° C.

Time to produce a rooted young plants, winter.—About four weeks at temperatures about 20° C. to 25° C.

Root description.—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.—Freely branching; medium density.

Plant description:

Plant and growth habit.—Herbaceous single-type potted *Arctotis* plant; compact and semi-upright plant habit; vigorous growth habit; freely branching growth habit with numerous lateral branches developing per plant; dense and bushy appearance.

Plant height, to top of inflorescences.—About 14.7 cm.

Plant width.—About 27.7 cm.

Lateral branches.—Length: About 8.2 cm. Diameter: About 7 mm. Internode length: About 2.7 cm. Strength: Strong. Aspect: Upright to outwardly. Texture: Tomentose. Color: Close to 145B to 145D.

Leaf description:

Arrangement.—Alternate, simple.

Length.—About 6 cm.

Width.—About 2.6 cm.

Shape.—Roughly elliptic.

Apex.—Acute.

Base.—Cuneate.

Margin.—Shallowly dentate.

Texture, upper surface.—Pubescent.

Texture, lower surface.—Tomentose.

Venation pattern.—Pinnate, reticulate.

Color.—Developing leaves, upper and lower surfaces: Close to 191D. Fully expanded leaves, upper surface: Close to 147B; venation, close to 145C tinged with close to N77C. Fully expanded leaves, lower surface: Close to 147C; venation, close to 143C.

Petiole length.—About 2.9 cm.

Petiole diameter.—About 1.4 mm.

Petiole texture, upper surface.—Tomentose.

Petiole texture, lower surface.—Pubescent.

Petiole color, upper and lower surfaces.—Close to 144C.

Inflorescence description:

Appearance.—Single-type (daisy) inflorescence form with broadly lanceolate-shaped ray florets and tubular disc florets; inflorescences borne on terminal and axillary peduncles above the foliar plane; ray and disc florets arranged acropetally on a capitulum; inflorescences face mostly upright.

Fragrance.—None detected.

Flowering season.—Plants flower during the spring and again in the autumn in Japan; plants begin flowering about six to eight weeks after planting.

Inflorescence longevity.—Inflorescences last about seven to ten days on the plant; inflorescences persistent.

Quantity of inflorescences.—Freely flowering habit with about 26 inflorescences developing per plant.

Inflorescence buds.—Height: About 1.6 cm. Diameter: About 1.1 cm. Shape: Globose. Color: Proximally, close to 2D; distally, close to 155A; at the apex, close to N155B; venation, close to N77A.

Inflorescence size.—Diameter: About 5 cm. Depth (height): About 3 cm. Diameter of disc: About 1.2 cm. Receptacle diameter: About 8.7 mm. Receptacle height: About 2.6 mm.

Ray florets.—Quantity and arrangement: About 21 ray florets arranged in a single whorl. Length: About 2.5 cm. Width: About 7.5 mm. Shape: Broadly lanceolate. Apex: Broadly acute and emarginate. Base: Attenuate. Margin: Entire. Orientation: Initially upright, then perpendicular to the peduncle; apices slightly reflexed. Texture, upper surface: Smooth, glabrous; satiny. Texture, lower surface: Pubescent; satiny. Color: When opening and fully opened, upper surface: Proximally, close to 7A; center, close to 155D; distally, close to NN155C; venation, close to NN155C; color does not change with development. When opening and fully opened, lower surface:

Close to 9D; towards the base, close to 8A; apical margin, close to N155B; venation, close to 77B.

Disc florets.—Quantity and arrangement: About 109 massed at center of the receptacle. Length: About 6.2 mm. Diameter, at base: About 1.3 mm. Shape: Tubular, elongated. Apex: Five-pointed. Color, immature: Close to 202A. Color, mature: Close to 152A.

Phyllaries.—Quantity and arrangement: About 33 arranged in about five imbricate whorls. Length, outer phyllaries: About 4.3 mm. Width, outer phyllaries: About 2.2 mm. Length, inner phyllaries: About 8.8 mm. Width, inner phyllaries: About 5.4 mm. Shape, outer phyllaries: Lanceolate. Apex, outer phyllaries: Acute. Shape, inner phyllaries: Elliptic. Apex, inner phyllaries: Obtuse to rounded. Base, outer and inner phyllaries: Fused. Margin, outer and inner phyllaries: Entire. Texture, outer and inner phyllaries, upper surface: Smooth, glabrous. Texture, outer and inner phyllaries, lower surface: Pubescent. Color, outer and inner phyllaries, upper and lower surfaces: Close to 144A to 144B; towards the apex, close to 185A.

Peduncles.—Length: About 8.9 cm. Diameter: About 2.8 mm. Angle: Upright to slightly outwardly. Strength: Strong, flexible. Texture: Tomentose. Color: Close to 145C.

Reproductive organs.—Androecium: Quantity per disc floret: Five. Stamen length: About 5.1 mm. Anther size: About 1.8 mm by 0.9 mm. Anther shape: Lanceolate. Anther color: Close to 12C. Pollen amount: Scarce. Pollen color: Close to 17A. Gynoecium: Quantity per ray and disc florets: One. Pistil length: About 7.1 mm. Stigma shape: Bi-parted. Stigma color: Close to 200A. Style color: Close to N163D. Ovary color: Close to 155B.

Seeds and fruits.—Seed and fruit production has not been observed on plants of the new *Arctotis*.

Pathogen & pest resistance: Plants of the new *Arctotis* have not been observed to be resistant to pathogens and pests common to *Arctotis* plants.

Garden performance: Plants of the new *Arctotis* have been observed to have good garden performance and to tolerate wind, rain and temperatures ranging from about 0° C. to about 40° C.

It is claimed:

1. A new and distinct *Arctotis* plant named 'Bonarc 1107' as illustrated and described.

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