



US00PP35850P3

(12) **United States Plant Patent**
Sanabria Aguilar et al.

(10) **Patent No.:** **US PP35,850 P3**

(45) **Date of Patent:** **Jun. 4, 2024**

(54) **BLUEBERRY PLANT VARIETY NAMED**
‘BLUECSOL5’

(50) Latin Name: *Vaccinium corymbosum* L.
Varietal Denomination: **BLUECSOL5**

(71) Applicant: **CAMPOSOL S.A.**, Lima (PE)

(72) Inventors: **Kimberlayn Maria Apsara Sanabria**
Aguilar, Lima (PE); **Milagros Janet**
Granda Mogollon De Montoya, Lima
(PE); **Luis Jose Montgomery Taboada**,
Lima (PE); **Jorge David Romero**
Pajares, Lima (PE)

(73) Assignee: **CAMPOSOL S.A.**, Lima (PE)

(*) 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.: **17/803,891**

(22) Filed: **Jan. 11, 2023**

(65) **Prior Publication Data**

US 2023/0225231 P1 Jul. 13, 2023

(30) **Foreign Application Priority Data**

Jan. 11, 2022 (PE) 45-2022

(51) **Int. Cl.**
A01H 6/36 (2018.01)
A01H 5/08 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./157**
CPC *A01H 6/368* (2018.05)

(58) **Field of Classification Search**
USPC Plt./156, 157
See application file for complete search history.

Primary Examiner — Karen M Redden

(74) *Attorney, Agent, or Firm* — Ladas & Parry LLP

(57) **ABSTRACT**

A new and distinct evergreen blueberry variety with zero chill requirement named ‘BLUECSOL5’, characterized by the following combination of traits: medium plant vigor, upright growth habit, ovate leaf shape, globose corolla shape and medium conspicuousness of ridges on corolla tube, oblate fruit shaped, large fruit-size, strong bloom intensity, medium sweetness, high acidity, and very firm fruit. Latin name of the genus and species: *Vaccinium corymbosum* L.

5 Drawing Sheets

1

Latin name: *Vaccinium corymbosum* L.
Variety denomination: Blueberry plant named
‘BLUECSOL5’.

**CROSS REFERENCE TO RELATED
APPLICATIONS**

This application claims priority to a Peruvian Breeder’s
Rights Application No. 45-2022 filed on Jan. 11, 2022, the
entire contents of which is incorporated by reference herein.

BACKGROUND OF THE INVENTION

The present invention relates to a new *Vaccinium corym-*
bosum L. plant, which was selected from open pollination
between ‘Biloxi’ (*Vaccinium corymbosum* L., public plant)
as the female (seed) parent and pollen from an unknown
variety (*Vaccinium corymbosum* L.). Berry seeds of plants of
the ‘Biloxi’ were collected from different fields, located in
Viru, La Libertad, Peru at the beginnings of 2016. 11805
seedlings at high density were planted under field conditions
in December of the same year.

The seedlings were evaluated during 3 growing season
(2017, 2018 and 2019) and the breeding method used was
phenotypic recurrent selection. In December 2019 one of the
seedlings, ‘BLUECSOL5’, was isolated due to its excellent
quality fruit, long postharvest life, and high yield potential.
‘BLUECSOL5’ was asexually propagated by softwood cut-
tings to confirm the distinctness, and stability of the char-
acteristics observed in another growing season. 5 rooted
cuttings were planted in an experimental test plot, located in

2

Viru, La Libertad, Peru. From December 2020 until the
present, said test plot has shown that the unique features of
this new *Vaccinium* variety are stable and reproduce true to
type in successive generations of asexual propagation. In
5 addition, ‘BLUECSOL5’ was subsequently propagated by
softwood cutting and tissue culture and an additional plot,
with 70 plants were planted in December 2021 in the same
location. This new plot has maintained up to the present the
distinctness, and stability characteristics of the new variety
10 of *Vaccinium corymbosum* L.

SUMMARY OF THE VARIETY

The following is the summary of the description of the
15 new and distinct variety of blueberry ‘BLUECSOL5’ was
selected in Viru, La Libertad, Peru in December 2019.
‘BLUECSOL5’ is an evergreen blueberry variety with zero
chill requirement. The following are the most distinguishing
20 traits of this new variety: medium plant vigor, upright
growth habit, ovate leaf shape, globose corolla shape and
medium conspicuousness of ridges on corolla tube, oblate
fruit shaped, large fruit-size, strong bloom intensity, medium
sweetness, high acidity, and very firm fruit.

‘BLUECSOL5’ was selected as a mid-early variety, with
25 high yield potential, excellent fruit quality and post-harvest
life.

BRIEF DESCRIPTION OF THE DRAWINGS

30 The accompanying photographs show typical bush,
leaves, flower, and fruit characteristics of the new *Vaccinium*

corymbosum L. 'BLUECSOL5'. Colors shown are as accurate as can be reasonably reproduced by the photographic means. Photographs were taken of 2 and 4-year-old plants grown in fields of the test plot, located in Viru, La Libertad, Peru.

FIG. 1.—Shows typical bush with upright growth habit on 2-year-old plant of the new variety 'BLUECSOL5'.

FIG. 2.—Shows the inflorescence length on 2-year-old plant of the new variety 'BLUECSOL5'.

FIG. 3.—Shows the size and shape of the flower corolla on 2-year-old plant of the new variety 'BLUECSOL5'.

FIG. 4.—Shows the upper sides and shape of complete leaves on 2-year-old plant of the new variety 'BLUECSOL5'.

FIG. 5.—Shows the size and shape of the fruits on 2-year-old plant of the new variety 'BLUECSOL5'.

DETAILED BOTANICAL DESCRIPTION

The following botanical description detailed forth distinctive traits of 'BLUECSOL5'. The data were collected from clones established in an experimental test plot in Peru on 2-year-old plants. Color descriptions are based on the Munsell® Plant Tissue Color Book scale and Pantone® color codes.

Classification:

Family.—Ericaceae.

Genus.—*Vaccinium*.

Species.—*Vaccinium corymbosum* L.

Common name.—Southern Highbush Blueberry.

Variety name.—'BLUECSOL5'.

Parentage:

Female parent.—'Biloxi' (public plant).

Male parent.—Unknown variety.

Plant:

Vigor.—Medium.

Growth habit.—Upright.

Height.—Mean of 94 cm.

Width.—Mean of 81 cm.

Internode length.—Mean of 21.2 mm.

Evergreenness.—Evergreen.

Chilling requirements.—0 hours below 7° C.

Color of 1-year-old rough bark observed December 22.—Green Munsell® 5GY 6/6.

1-year-old wood length.—Mean of 45.8 cm.

The mature cane's color observed July 23.—Brown Munsell® 5YR 4/4.

The mature cane's length.—About 30 to 40 cm.

Surface texture of the mature cane.—Rough.

Propagation:

Ease of propagation.—Propagates readily from soft-wood cuttings and tissue culture.

Type.—By Tissue cultured.

Root description.—'BLUECSOL5' develops deep root systems and moderate volume of roots in the topsoil layer.

Rooting habit.—High density and branching.

Leaves:

Length.—Mean of 54 mm.

Width.—Mean of 33 mm.

Length/width ratio.—1.64.

Shape.—Ovate.

Shape of the apex.—Ovate.

Shape of the base.—Ovate.

Surface texture in the upper.—Waxy.

Surface texture in the lower.—Waxy and faintly pubescent.

Margin.—Serrate.

Color on upper side of old leaves.—Green Munsell® 7.5GY 3/2.

Color on upper side of young leaves.—Munsell® 5GY 6/6.

Petiole:

Length.—Mean of 4.3 mm.

Texture.—Smooth.

Color.—Green Munsell® 2.5GY 7/6.

Flowers:

Flower cluster.—Medium.

Flower fragrance.—Faint smell of geranium flowers.

Inflorescence length.—Mean of 5 cm.

Inflorescence diameter.—Mean of 2.2 cm.

Corolla:

Size of corolla tube.—Mean of 11.3 mm (from pedicel attachment point to corolla tip excluding the pedicel).

Corolla shape.—Globose.

Corolla tube color.—White Pantone® 11-0601 TPX.

Stamen:

Length.—Mean of 0.7 cm.

Number per flower.—About 9 to 11.

Color of filament.—Green Munsell® 2.5GY 8/2.

Color of anther.—Yellow Munsell® 7.5YR 6/10.

Pistil:

Number per flower.—1.

Style color.—Green Munsell® 5GY 7/10.

Style length.—Top of ovary to stigma tip. 8 mm.

Fruits:

Diameter of calyx aperture on mature berry.—Mean of 5.4 mm.

Diameter of depth of calyx on mature berry.—Mean of 2.0 mm.

Detachment force for ripe berries (easy, medium, hard).—Medium.

Berries per cluster.—About 8 to 10.

Width.—About 18 to 22 mm.

Weight.—Mean of 4.4 g per berry.

Shape.—Oblate.

Intensity of fruit bloom.—Strong.

Pedicel scar.—Mean of 3 mm.

Color of unripe fruit.—Light green Pantone® 5GY 6/6.

Color of mature fruit skin with bloom.—Dapple gray Pantone® 16-3907 TCX.

Color of mature fruit skin without bloom.—Dark navy Pantone® 19-4013 TCX.

Fruit flesh color.—Green yellow Munsell® 2.5GY 8/4.

Fruit firmness.—Very firm.

Fruit acidity.—High.

Fruit sweetness.—Medium.

Market use of fruit.—Fresh market.

Seeds:

Color.—Brown Munsell® 7.5YR 6/6.

Seeds per berry.—Mean of 15 seeds.

Reproductive organs:

Pollen abundance.—Low.

Pollen color.—Yellow Munsell® 5Y 7/2.

Disease, insects, and mites.—No sensitivity to any disease and pest has been observed for 'BLUECSOL5'.

Plant hardiness zone: The plants of the 'BLUECSOL5' variety were tested under the arid conditions of the

northern coast of Peru, where the maximum temperatures in the year are 32° C. and the minimum are 13° C. The 'BLUECSOL5' variety can produce fruit all year round and does not require temperatures below 7° C. for flower induction. The area where its behavior was observed and evaluated does not have extreme temperatures to be able to determine cold or heat resistance.

Productivity: 'BLUECSOL5' has a medium to high productive potential. The harvest begins after 6 months of the planting or pruning of the plants on the field and lasts for 24 weeks. Plant productivity in the first season is about 2.0 to 2.5 kg per plant and in the second season is around 2.5 to 3.5 kg per plant. 80% of the harvest is concentrated in 13 weeks.

Storage qualities: 'BLUECSOL5' has a shelf life of more than 49 days under modified atmosphere storage at 1° C. and 35 days under controlled atmosphere storage at 1° C.

COMPARISON TO THE PARENT

'BLUECSOL5' is distinguished of 'Biloxi' variety in the following characteristics::

Growth habit in 'Biloxi' (Public plant) is semi-upright and in 'BLUECSOL5' is upright.

Anthocyanin coloration in the flower bud is weak in 'Biloxi' (Public plant), whereas in 'BLUECSOL5' is medium.

Conspicuousness of ridges on corolla tube are weak in 'Biloxi' (Public plant), whereas in 'BLUECSOL5' are medium.

Fruit size of 'Biloxi' (Public plant) is medium, whereas in 'BLUECSOL5' fruit size large fruits.

Depth of calyx basin on mature berry is deep in 'Biloxi' (Public plant) and medium in 'BLUECSOL5'.

Fruit firmness in 'BLUECSOL5' is greater than the fruit firmness in 'Biloxi' (Public plant).

Intensity of fruit bloom in 'Biloxi' (Public plant) is weaker than 'BLUECSOL5'.

COMPARISON TO COMMERCIAL VARIETY

Growth habit in 'Emerald' (U.S Plant Pat. No. 12,165) is semi-upright and in 'BLUECSOL5' is upright.

Leaf surface texture in the upper in 'BLUECSOL5' is waxy, whereas in 'Emerald' (U.S Plant Pat. No. 12,165) is smooth.

The depth of the calyx basin on mature berry in 'BLUECSOL5' is less than in 'Emerald' (U.S. Plant Pat. No. 12,165).

Fruit firmness in 'BLUECSOL5' is greater than 'Emerald' (U.S. Plant Pat. No. 12,165).

Intensity of fruit bloom in 'Emerald' (U.S. Plant Pat. No. 12,165) is weaker than 'BLUECSOL5'.

What is claimed is:

1. A new and distinct blueberry plant named 'BLUECSOL5' substantially as illustrated and described.

* * * * *



FIG 1



FIG 2.

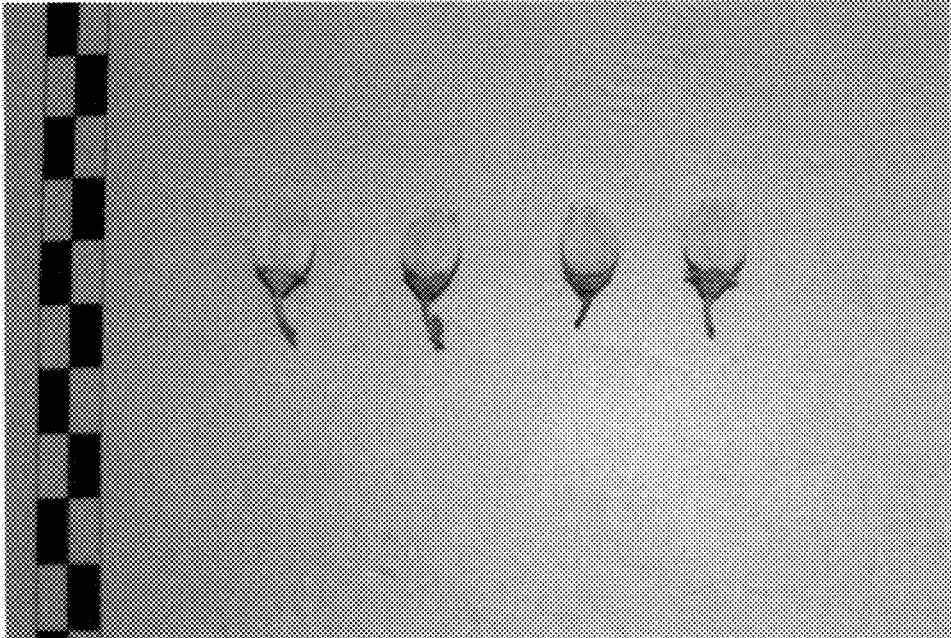


FIG 3.

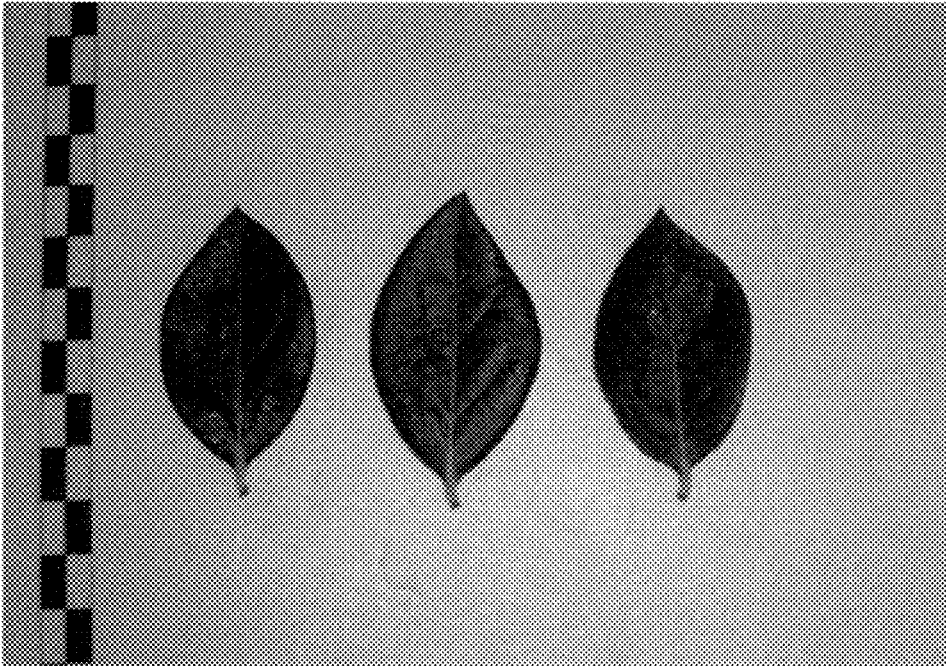


FIG. 4.

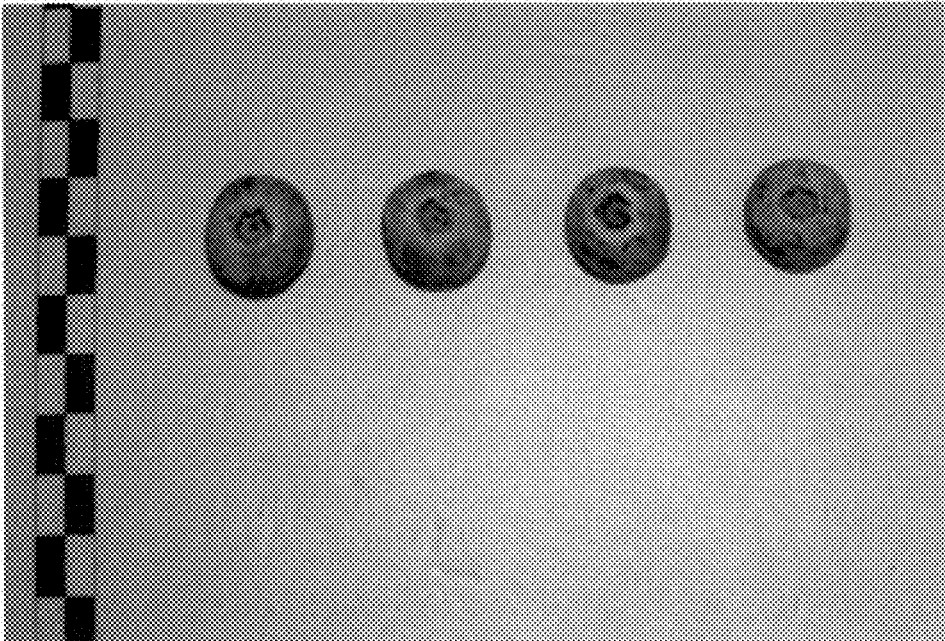


FIG 5.