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VandenBerg

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[54] CHRYSANTHEMUM PLANT NAMED
BRONZE MELOSA[75] Inventor: Cornelis P. VandenBerg, Salinas,
Calif.[73] Assignee: Yoder Brothers, Inc., Barberton,
Ohio

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[52] U.S. Cl. Plt./79

[58] Field of Search Plt./76, 79

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Primary Examiner—Howard J. Locker

Attorney, Agent, or Firm—Foley & Lardner

[57] ABSTRACT

A Chrysanthemum plant named Bronze Melosa particu-
larly characterized by its flat capitulum form; decora-
tive capitulum type; light-orange ray floret color with
slightly darker center; diameter across face of capitulum
of 89 to 102 mm when fully opened, when grown as a
single stem spray cut mum; photoperiodic flowering
response to short days in Salinas under normal tempera-
tures is 47 to 57 days after start of short days; flowering
response in Bogota, Colombia, under temperatures of
minimum 6.3 degrees Celsius night and maximum 29
degrees Celsius day is 65 to 72 days; plant height, with
6 to 8 long days prior to start of short days ranges from
79 to 91 cm when grown in Salinas as a single stem cut
mum with no growth regulator applications; when
grown in Bogota, with 14 to 15 long days prior to start
of short days, plant height ranges from 99 to 124 cm;
peduncle length of the first lateral at flowering after
removing the apical bud ranges from 10 to 15 cm when
grown in Salinas, and from 13 to 18 cm when grown in
Bogota; peduncle length of the fourth lateral ranges
from 18 to 20 cm in Salinas, and from 20 to 23 cm in
Bogota; and excellent tolerance to low night tempera-
tures for bud initiation and flower development.

1 Drawing Sheet

1

The present invention comprises a new and distinct
cultivar of Chrysanthemum, botanically known as *Den-
dranthera grandiflora*, and referred to by the cultivar
name Bronze Melosa.

Bronze Melosa, identified as 3448 (85-268A08), is a
product of a mutation induction program. The new
cultivar was discovered and selected by Cornelis P.
VandenBerg in November 1988 in a controlled environ-
ment in Salinas, Calif., as one flowering plant within a
flowering block established as rooted cuttings from
stock plants which has been exposed as unrooted cut-
tings to an X-ray source of 2000 rads in Ft. Meyers, Fla.,
in March 1988. The irradiated parent cultivar was the
cultivar identified as Melosa, disclosed in U.S. Plant
Pat. No. 7,465.

The irradiation program resulting in Bronze Melosa
had as its primary objective the expansion of color
ranges of the parent cultivar Melosa. The irradiation
program comprised irradiating cuttings of the parent
cultivar at irradiation levels of 1500, 1750 and 2000 rads.
A total of 1,324 cuttings harvested from a total of 225
irradiated plants were planted on September 19, Sep-
tember 12 and September 5, respectively. A resupply of
material irradiated at 1500 rads was planted on Oct. 3,
1988. Of the total cuttings planted, 20 initial selections
were made, which selections were then revegetated and

2

reflowered. Two consecutive flowerings resulted in
discarding 6 of the original 20 selections on Jul. 25,
1989. Because of the potential importance of the parent
cultivar Melosa, it was decided to flower all remaining
14 selections in Bogota, Colombia, and to re-flower the
same selections in Salinas, as Active status plants. Flow-
ering in Bogota resulted in discarding 12 of these 14
selections on Apr. 10, 1990, and the decision to intro-
duce one selection (3448) as Bronze Melosa. During a
flowering in Salinas, on Jun. 19, 1990, one remaining
selection was discarded, and two selections, which
were previously discarded in Bogota were re-instated as
Dark Melosa (3456) and Coral Melosa (3458) for possi-
ble introduction in the United States only.

The first act of asexual reproduction of Bronze
Melosa was accomplished when vegetative cuttings
were taken from the initial selection in January 1989 in
a controlled environment in Salinas, Calif., by techni-
cians working under supervision of Cornelis P. Vanden-
Berg.

Horticultural examination of controlled flowerings of
successive plantings has shown that the unique combi-
nation of characteristics as herein disclosed for Bronze
Melosa are firmly fixed and are retained through suc-
cessive generations of asexual reproduction.

Bronze Melosa has not been observed under all possible environmental conditions. The phenotype may vary significantly with variations in environment such as temperature, light intensity and daylength.

The following observations, measurements and comparisons describe plants grown in Salinas, Calif., and in Bogota, Colombia, under greenhouse conditions which approximate those generally used in commercial greenhouse practice. The low night temperature tolerance was determined in repeated flowerings in Bogota, Colombia, with an average minimum low night temperature inside the greenhouse during our trials ranging from 6.3 to 10.0 degrees Celsius.

The following traits have been repeatedly observed and are determined to be basic characteristics of Bronze Melosa, which, in combination, distinguish this Chrysanthemum as a new and distinct cultivar:

1. Flat capitulum form.
2. Decorative capitulum type.
3. Light-orange ray floret color with slightly darker center.
4. Diameter across face of capitulum of 89 to 102 mm when fully opened, when grown as a single stem spray cut mum.
5. Photoperiodic flowering response to short days in Salinas under normal temperatures is 47 to 57 days after start of short days. Flowering response in Bogota, Colombia under temperatures of minimum 6.3 degrees Celsius night and maximum 29 degrees Celsius day is 65 to 72 days.
6. Plant height, with 6 to 8 long days prior to start of short days, ranges from 79 to 91 cm when grown in Salinas as a single stem cut mum with no growth regulator applications, when grown in Bogota, with 14 to 15 long days prior to start of short days, plant height ranges from 99 to 124 cm.
7. Penduncle length of the first lateral at flowering after removing the apical bud ranges from 10 to 15 cm when grown in Salinas, and from 13 to 18 cm when grown in Bogota. Peduncle length of the fourth lateral ranges from 18 to 20 cm in Salinas, and from 20 to 23 cm in Bogota.
8. Excellent tolerance to low night temperatures for bud initiation and flower development.

The accompanying photographic drawing is a view of a single stem of Bronze Melosa, with the colors being as nearly true as possible with illustrations of this type.

Of the commercial cultivars known to the inventor, the most similar in comparison to Bronze Melosa is the parent cultivar Melosa. All traits of Bronze Melosa are similar to those of Melosa, except for the ray floret color. The ray floret color of Bronze Melosa is light orange, while the ray floret color of Melosa is described as soft lavender-pink.

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In the following description color references are made to The Royal Horticultural Society Colour Chart. The color values were determined on plant material grown as a single stem spray cut mum in Salinas, Calif., on Jun. 29, 1990.

Classification:

Botanical.—*Dendranthema grandiflora* cv Bronze Melosa.

Commercial.—Flat decorative spray cut mum.

Inflorescence

A. Capitulum:

Form.—Flat.

Type.—Decorative.

Diameter across face.—89 to 102 mm when fully opened.

B. Corolla of ray florets:

Color (general tonality from a distance of three meters).—Light orange.

Color (upper surface).—Closest to 16A to 24B, slightly overlaid with 168C. Center of flower and immature buds are more strongly overlaid with 168C.

Color (under surface).—Closest to 16A to 16B.

Shape.—Slight longitudinal reflexing. Cross-section slightly concave.

C. Corolla of disc florets:

Color (mature).—14A.

Color (immature).—144B.

D. Reproductive organs:

Androecium.—Present on disc florets only; very few disc florets, barely visible in the mature flower, scant pollen.

Gynoecium.—Present on both ray and disc florets.

PLANT

A. General appearance:

Height.—79 to 91 cm when grown in Salinas as a single stem cut mum with 6 to 8 long days after planting rooted cutting prior to start of short days, with no growth regulator applications; when grown in Bogota, with 14 to 15 long days prior to start of short days, plant height ranges from 99 to 124 cm.

B. Foliage:

Color (upper surface).—147A.

Color (under surface).—147B.

Shape.—Deeply lobed and slightly serrated.

I claim:

1. A new and distinct Chrysanthemum plant named Bronze Melosa, as described and illustrated.

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