

MSU Extension Publication Archive

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

Producing Potted Marguerite Daisies for Profit
Michigan State University Extension Service
W.H. Carlson, C. Bethke, D. Hopper
Issued August 1985
4 pages

The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.

Producing Potted Marguerite Daisies for Profit

by W.H. Carlson, C. Bethke, D. Hopper

I. Introduction

- A. Marguerite daisies are often called "Boston Daisies" or "Paris Daisies." They belong to the compositae family and have the Latin name *Chrysanthemum frutescens*. Some people simply refer to them as "Marguerites."
- B. They are excellent as garden plants both for bedding displays and cut flower gardens.
- C. Marguerites thrive in areas where temperatures seldom exceed 90°F. They are especially popular in the northern and coastal areas of the United States. They are perennials in central and southern coastal California.
- D. Some cultivars produce very attractive pot plants for any season of the year.
- E. They produce an especially attractive display in the fall.
- F. The greatest current use of Marguerites is for the cut flower industry.
- G. They range in height from 18 to 36 inches. Most popular garden varieties are from 18 to 24 inches in height. If grown for cut flowers they become shrubs 3 to 6 feet in height.
- H. Flowers range from 1 to 4 inches in diameter.

II. Cultivars

- A. Marguerite daisies were discovered in the Canary Islands. A limited number of varieties are regularly cultivated.
- B. Some popular varieties are:
 1. White-colored flowers
 - a. Paris White (small single flower)
 - b. Nicholson's White (large single flower)
 - c. Mrs. Sanders (large double flower)
 - d. Snowflake (miniature double flower)



2. Yellow-colored flowers
 - a. Improved Boston (canary yellow single flower)
 - b. Standard Yellow (single flower)
3. Pink-colored flowers
 - a. Pink Beauty (standard pink single flower)
 - b. Mary Wotton (pale pink single flower)
 - c. Surprise (mauve pink single flower)
 - d. Champagne (pink center double flower)
4. Red-colored flower
 - a. Crimson Pom Pom (cerise red single flower)

III. Propagation

- A. Marguerites are grown primarily from vegetative terminal cuttings.
 1. Plants are kept vegetative under short days. Shading with black cloth to provide a photoperiod of less than 10 hours of light will keep most cultivars vegetative. Light leakage of 10 or more foot candles may result in some flower bud development.
 2. Terminal cuttings two to three inches long can be taken from non-wilted stock plants.
 3. Often the base end of the cutting is sprayed with a rooting powder containing a rooting hormone (0.1 to 0.2% indolebutyric acid, or IBA).
 4. The cuttings are taken directly from stock and inserted to a depth of 1.5 inches.
 5. Temperatures should be maintained at 72-75°F in the rooting media.
 6. Either intermittent mist to keep the leaves from wilting or watering thoroughly and covering with opaque

plastic or clear plastic shaded with newspaper will keep plants turgid until they root. Water status should be checked regularly.

7. In four to seven days roots start to develop at which time mist should be reduced gradually. Also reduce shading until the plants have adjusted to the full sun.
8. If mist is being used, 200 to 300 ppm of nitrogen fertilization using a 9-45-17 type fertilizer should be applied weekly when roots start to develop.

IV. Transplanting

- A. When plants are rooted in a bed, they are removed as soon as roots are one to two inches long. Plant immediately.
- B. Plant rooted cuttings slightly deeper than they were rooted.
- C. Thoroughly water the plants with a starter fertilizer (i.e., 9-45-17) at 200 ppm nitrogen.
- D. Maintain moderate day temperatures (below 75°F), and a night temperature of 62°F.

V. Growing

- A. Growing
 1. Marguerites do best in a well-aerated, moist growing medium.
 2. Peat-lite mixes give the most consistent results.
 3. A typical peat-lite mix includes 50% peat; 25% perlite; and 25% vermiculite by volume. Variation, depending on the peat source and particle size, may be required to provide proper aeration along with high water-holding capacity.
 4. One cubic yard of peat-lite mix typically would contain the following additives:
 - 5 pounds of dolomitic lime (this amount will vary regionally due to pH of the peat and water).
 - 1 to 2 lbs. of triplesuperphosphate (0-46-0)
 - 1 pound potassium nitrate (14-0-44)
 - 2 pounds Osmocote (14-14-14)
 - 3 ounces wetting agent
 - 4 tablespoons of fritted trace elements
 5. Thorough mixing is absolutely necessary.
 6. Use a pH meter and solubridge to check the pH and soluble salt content at planting and on a weekly basis. If the salts are below 0.3 μ mhos, the soil is deficient and

should be fertilized. A desirable range for conductivity of soluble salts in a 1 part media to 2 parts distilled water mixture is 0.5 to 0.8 μ mohs. Above .8 the soil contains excessive salts and should be leached.

7. The pH should start between 6.0 and 6.4 and never be allowed to exceed 7.0 or go below 5.5.
- B. Fertilization and Watering
 1. Keep well watered.
 2. Constant liquid feed with 200 ppm of nitrogen using a 20-20-20 or 20-10-20 soluble fertilizer will provide good nutrition.
 3. Keep water pH in the range of 6.2 to 6.4 by using an acid. Usually phosphoric or nitric acid is used. The amount to apply will depend on water source. Usually 1 to 2 oz of acid are required per 100 gallons of water.
 4. Under-fertilization results in slow growth and smaller flower size.
 - C. Daylength
 1. Marguerites are long day plants and most cultivars flower when the light period is greater than 12 hours. Therefore, if larger plants are desired, keep them short days (8 to 10 hours of light) for an additional two weeks and pinch 4 or 5 days before the start of long days.
 2. To provide long treatment, light during the night, 10:00 p.m. to 2:00 a.m., using 60 watt incandescent bulbs spaced two feet above the plants and four feet apart.
 3. To ensure the earliest flowering on the most compact plants, provide long days as soon as root growth is evident.
 - D. Temperature
 1. Root cuttings at 72-75 °F media temperature.
 2. Vegetative growth is fastest at 65-70 °F air day temperature or 60-62 °F air night temperature.
 3. Flower bud initiation and development is best at 62 °F nights and 70 °F day air temperature.
 - E. Container size and spacing
 1. For bedding production, 18 to 24 plants can be produced in the standard 11 x 22 inch flat.
 2. Four-inch pots can be finished pot to pot or spaced 6 inches center.
 3. Some cultivars look attractive in hanging baskets.

Crop Calendar for May Flowering of Marguerite Daisies

	January	February	March	April	May
Week	1 2 3 4	5 6 7 8	9 10 11 12 13	14 15 16 17	18 19 20
Bedding packs			X Stick cuttings X Begin long days X 62°F nights X X X Growth regulators**		X Flower
Small pots (4 or 4½")			X Stick cuttings X Pinch X Begin long days X 62°F nights X X X Growth regulators*		X Flower
Large pots (6 to 8")			X Stick cuttings X 62°F night X Pinch X Provide long days X X X Growth regulators*		X Flower

*Add 4 weeks to total cropping time for winter crop. Schedule to flower in February or March.

**Growth regulators are usually applied one or two times depending on the rate of growth and your experience.

F. Growth regulators

1. Marguerites respond to Cycocel (CCC). Spray with 1000-1500 ppm as soon as cuttings have rooted. Two or three sprays at 10 day intervals will give additional height control. Spraying after buds are visible may reduce flower size and delay flowering.
2. A-Rest (ancymidol) is also effective at drench rates of 16 to 33 ppm. Apply as soon as roots are established. Additional and heavier applications are not recommended as the plants tend to remain dwarfed. B-Nine has not been effective in height control.

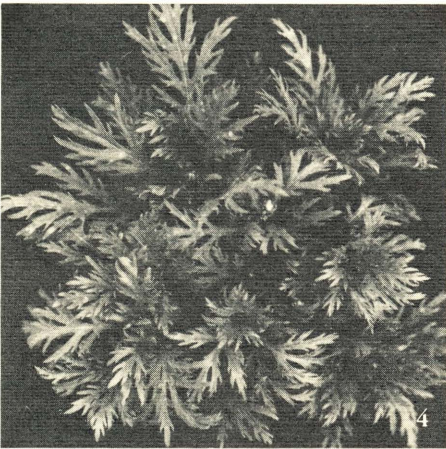
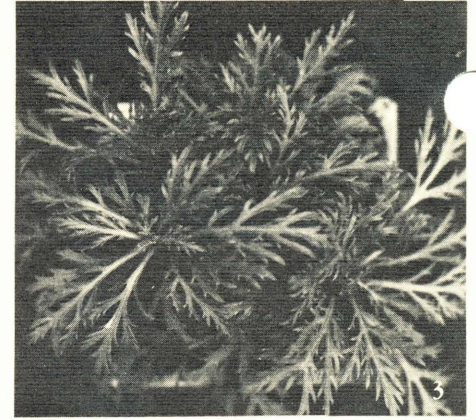
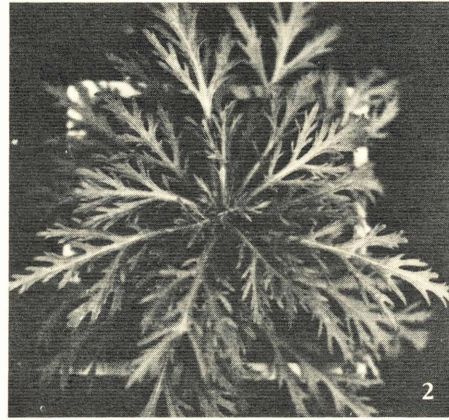
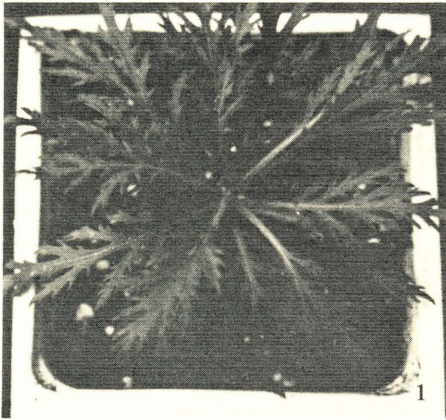
VI. Timing

- A. Time from the beginning of long days to flowering varies by cultivar from 5 to 9 weeks. Most cultivars flower in about 7 weeks from the beginning of long days.
- B. Night temperatures below 62°F delay flowering.
- C. Night temperatures above 62°F only slightly hasten flowering but reduce flower size.

D. Day lengths shorter than 12 hours can also cause a delay in flowering.

E. Scheduling Marguerites for spring sales.

1. Pack sales
 - a. Week 10: stick cutting
 - b. Week 10: provide long days
 - c. Week 11: reduce night temperature to 62°F
 - d. Week 11-13: apply growth regulator
 - e. Week 18: flowering plants for sale
2. Small pots (4- to 4½-inch)
 - a. Week 9: stick cuttings
 - b. Week 10: pinch
 - c. Week 10: provide long days
 - d. Week 10: reduce night temperature to 62°F
 - e. Week 11-13: apply growth regulators
 - f. Week 18: flowering plants for sale
3. Large pots (6-inch)
 - a. Week 7: stick cuttings
 - b. Week 8: reduce night temperature to 62°F
 - c. Week 9: pinch
 - d. Week 10: provide long days
 - e. Week 11-13: apply growth regulators
 - f. Week 18: flowering plants for sale



Marguerite Daisy (from cutting)

1. 18 days
2. 24 days
3. 45 days
4. 69 days
5. 91 days

VII. Problems

A. Insects and Mites

1. Aphids, spider mites, thrips, leaf miners, whitefly, leaf rollers, loopers and mealybugs are all common insect problems.

B. Diseases

1. Botrytis, Rhizoctonia, Pythium, crown-gall and powdery mildew are common disease problems.

C. Virus

1. Aster Yellows virus will also affect Marguerites.

D. Other Disorders

1. Failure of buds to develop.
 - a. Buds may be present but later abort when the photoperiod is too short.
 - b. No bud development occurs at all, often when the temperature is too

high or photoperiod is too short.

2. Small Flowers

- a. Small flower size can be a result of excessive day temperatures above 85 °F.
- b. Poor nutrition or late applications of growth retardants also can produce small flowers.
- c. Night temperatures above 65 °F also decrease flower size.
- d. Night temperatures above 75 °F may result in bud blasting.
- e. Temperatures below 60 °F may greatly delay the rate of growth and development.

3. General Yellowing and Slow Growth

- a. Yellowing may be the result of lack of nitrogen or iron.
- b. Slow growth may be the result of cool night temperatures below 60 °F or inadequate initiation.

Hal Hudson
 County Extension Director
 MSU Extension
 P.O. Box 439
 Harrison, MI 48625
 (517) 539-7805

MICHIGAN STATE UNIVERSITY



COOPERATIVE
EXTENSION
SERVICE

MSU is an Affirmative Action/Equal Opportunity Institution. Cooperative Extension Service programs are open to all without regard to race, color, national origin, sex, or handicap.

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Gordon E. Guyer, Director, Cooperative Extension Service, Michigan State University, E. Lansing, MI 48824.

This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by the Cooperative Extension Service or bias against those not mentioned. This bulletin becomes public property upon publication and may be reprinted verbatim as a separate or within another publication with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company.

New-8:85-5M-TM-UP, Price 20¢, Single Copy Free to Michigan Residents