**Gerbera Daisy**

Dr. Terri W. Starman

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**History**

- Discovered by botanist Robert Jameson in 1878
- Origin: South Africa
- The Botanical gardens in Kew, England identified the plant and gave it the species name *Gerbera jamesonii*
- Most modern breeding has taken place in the Netherlands

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**History (con’t)**

- Produced in North America in the 1920’s
- University of California’s breeding program made them suitable for garden use in the 1970’s
- Florida/Europe developed them for cut flower greenhouse production
- Majority of cut flowers come from: Columbia, South America, the Netherlands

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**Gerbera Facts**

- Uses:
  - Cut flowers, potted plants and bedding plants
- White, yellow, red, pink, orange, scarlet and bicolor flowers
- Single composite inflorescences are on a nonbranching scape

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**Gerbera Facts (con’t)**

- 20 inch diameter plants for cut flowers
- 28 inch scape length for cut flowers
- 1.75 to 5 inch diameter flower size

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**Flowering**

- 11 to 16 weeks after transplanting *in vitro* propagated plugs
- First visible flower buds are observed after 10-14 leaves have developed in the primary leaf whorl
- FI and FD are mainly affected by light intensity and temperature
- FI after two to three true leaves are visible
### Temperature
- Pot plants 70/63 °F day/night
- Most rapid development at 76 °F
- 70/75 °F day and 57/66 °F night is a compromise for cut and pot plants
- Plants respond to light intensity X duration

### Water and Nutrition
- Never overwater
- Allow to dry slightly between irrigations
- 300 ppm N 30-10-30 once after transplanting when leaves have formed, thereafter no further phosphorus is needed
- Magnesium and iron deficiencies are common because of high requirement
- Mg SO₄ monthly at 16 oz/100 gal
- Fe chelate constantly at 0.5 oz/100 gal

### Media
- Avoid pH > 6.5 and high soluble salts
- Frequent media monitoring is recommended
- Good drainage and aeration are essential

### Height Control
- Flower scape length and plant diameter are inherent and cultivar selection is necessary for each use
- Greater DIF = longer scape
- B-nine reduces scape length, leaf size and darkens leaves
- B-Nine (4000 ppm) applied 8 weeks after transplanting
- Cycocel is not effective

### Spacing and Disbudding
- Don’t let leaves overlap and don’t let the growing point get covered with anything
- Cut flower space 13 X 13 to 15 X 15
- Pot plants 1.4 to 3 plants per square foot
- 5-inch pot space at 11 X 11
- Removing first flower will allow more rapid and uniform elongation of remaining scapes

### Scheduling and Timing
- Sales of 4-inch pots:
  - 10 to 11 weeks after transplantation from April to September
  - 14 to 16 weeks after transplantation from September to April
Insect Problems
- Whitefly
- Thrips
- Aphids
- Spider Mites
- Cyclamen Mites
- Fungus gnats
- Leaf miners
- Worms, slugs and snails

http://hortipm.tamu.edu/pestprofiles/sucking/thrips/thrips.html

Diseases
- Botrytis (Decree, Chipco 20019)
- Powdery Mildew (Phyton 27)
- Phytophthora (Subdue)
- Rhizoctonia (Systec, Medallion)
- Pythium (Subdue)

Physiological Disorders
- Bent-neck is the insufficient flower stem hardening or maturation of the stem tissue below the harvested flower which results in stem collapse

Postharvest
- Both cut and pot are harvested when the two outer rows of disc florets are open and pollen can be seen
- Stems are pulled not cut
- Bent neck is related to bacterial contamination
- Only slightly sensitive to ethylene

Diagnosing Problems
- If flower stems are too tall or foliage too large:
  - Light intensity too low
- If flowers are too short or hidden in foliage: Could be the use of excessive fertilizer
  - Plants drying out too frequently
  - Too much growth regulator
  - Growing temperature too low
  - Soluble salts too high

Diagnosing Problems
- If flowers are distorted:
  - Caused by mites or thrips
- If plant is stunted or fails to grow:
  - Poor drainage
  - Packing soil too tightly
  - Low soil temperatures
- If plant wilts or dies:
  - Planted too deep (crown rot/root rot)