

# Technoguide on Chrysanthemum

## Introduction

Chrysanthemum is one of the leading cutflowers and potted plants in the international market. Domestic market has increased both for cutflowers and potted plants. Local production cannot cope with the demand, thus the importation of this cutflower from other countries.

The development of chrysanthemum industry as a major ornamental cutflowers and potted plants enterprises supports the major thrusts of the government to develop the non-traditional export products that will boost the industry to earn dollars. The immediate benefits from chrysanthemum production will substitute the imported flowers with locally produced ones.

## Cultivars

Selection of the cultivars depends on the purpose of the growers and the inherent characteristics of the cultivars to be used:

For cutflower production in the highlands

1. Golden Princess Anne
2. Bowl of Gold
3. Otome (White and Pink)
4. Taiwan Yellow
5. Taiwan White

For Potted chrysanthemum:

1. Kikubiyori
2. Snowball
3. Genie
4. La France
5. Rhapsody
6. Red Headline
7. Miss Hiroshima
8. Algiers
9. Capistrano
10. Autumn Fire

For lowland areas, the following cultivars have shown great performance:

1. Jean Series – Jean red, Jean White and Jean Yellow
2. Shin SHong – Taiwan Yellow
3. Kaingan – large yellow standard type
4. Sekaiteit – Taiwan Yellow

## **Cultural Management**

### Methods of Propagation

1. Cuttings
2. Division
3. Seeds
4. Grafting
5. Tissue Culture

### Soil

Any soil that permits good drainage and aeration is suitable for chrysanthemum. A medium consisting of 3 parts compost, 1 part animal manure and 1 part peat moss and sand should be used. A pH of 6.0 – 6.5 is recommended.

### Temperature

The best temperature in growing chrysanthemum ranges from 20 – 28<sup>0</sup>C for day and 15 – 20<sup>0</sup>C for night.

### Light Intensity

Chrysanthemums are short day plant, which requires short days or long nights to flower. The critical day length is 14 – 15 hours for flower initiation and 13 -14 hours for development.

### Planting

Rooted cuttings can be planted directly into raised beds or pots. Distance of planting varies according to the season. As more space per plant is allowed during those periods when light intensity is comparatively less.

The conventional spacing between the 1-meter wide beds is 15 x 15 cm during the dry season months and 15 x 20 cm during the wet season months.

### Water Requirements

Chrysanthemum needs only small amount of water during the stages of growth but it is important to avoid water stress during the vegetative growth.

Water requirement increases as vegetative growth progresses. However water requirement should be reduced as the plants approach the flowering stage.

### Fertilizer Requirements

Chrysanthemum takes up relatively large amount of both nitrogen and potassium during the vegetative growth. If the plants are already established, liquid fertilizers containing about 210 ppm N and 220 ppm potassium that should added every 2 -3 weeks interval until buds show color.

### Staking

Chrysanthemum are tied to bamboo stakes, metal hog wire or sturdy sticks to keep them erect and properly hold flowers or the main stem of the flowers.

### Pinching and Disbudding

Pinching on the growing tip of the plant is done to induce branching and increase the number of flowering stems per plant.

Disbudding for standard mums or "single flower" group. Lateral buds are removed to allow terminal bud to develop into a big flower.

For spray types, the terminal bud is removed to developed a spray of large uniform flowers from lateral buds.

### Harvesting

Chrysanthemum should be nearly opened when harvested. Flowers must be harvested late in the afternoon or early morning.

### Pest Control

Aphids, thrips, leafminers and mites are the common insects attacking chrysanthemum. Spraying with any recommended insecticides may control the infestation.

Cercospora leaf spot, alternaria leaf spot fusarium stem rot and podery mildew are the common diseases attacking chrysanthemums. Using any fungicide can control these diseases.