

## CHRYSANTHEMUMS

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Reporter - Vincent Vuoto, Florists' Review Magazine

Is there a good substitute for Mrs. Roy we can light for Thanksgiving? Garnet King is suggested, but not to perform well after the middle of December. What is the best temperature to carry stock plants? Minimum amount of delayed flowering at 60<sup>o</sup>F. Lighter cuttings, especially in winter, but will flower at an earlier date. Light stock plants--3 hours middle of night. How many inches of manure mulch should I put on mums?

Dick Andreasen--did not recommend manure or any readily decomposable organic matter. Manure has several disadvantages in cases where you use large amounts of water. In heavy soils it decreases oxygen in soil which is available to plant.

Where mums are used in rotation, no additional organic matter is necessary because of the fibrous root system of the plants, part of which remain in soil. If new soil needs organic matter, peat moss is suggested. For outdoor growing, manure is O K. if a cheap source is available. Peat is probably cheaper in the long run.

Outdoors, it is most likely there will be deficiencies in fertilizer and water. Indoors, oxygen is liable to be deficient.

Superphosphate good material. Sixteen percent to 20% soluble. Not recommended using after plants are established because of the 80% which isn't very soluble and stays on surface.

For an established crop superphosphate is too slow--prefer use of soluble phosphorous.

Phosphorous alone is not used. Use a soluble ammonium or potassium phosphate.

Rye as cover crop for outdoor planting is a good practice. Not desirable practice for soil to be brought into greenhouse--has same harmful effects as manure, although not quite as severe.

Pot mums under constant water level--great labor saver with no adverse affect on quality.

Cathey's explanation of temperature effects on chrysanthemum.

Thermo-zero varieties--flowers produced over a wide range in temperatures.

Thermo-positive varieties--first group used in year-'round flowering. Rapid flower initiation occurs when temperature is 60°F or above. Flower size is associated with temperature with the flower size decreasing as the temperature increases.

Thermo-negative varieties--rapid flower development occurs when the temperature is 60°F or less. High temperature (above 60°F) completely inhibits development of the buds to open flowers

Variety White Top is gaining in popularity as a summer white. Sticking of the buds on White Top and other varieties is a problem. Partial disbudding hastens development and improves flowers. This variety, according to some, has a tendency to stall under high temperature conditions.

Ençore stock plants, grown at a temperature below 60°F, resulted in delayed flowering. Older stock plants will give you "crown buds."

Are Lindane 25% (wetttable powder) and Aramite (wetttable powder) compatible? No reason to believe otherwise under normal conditions

Cut worms--successfully controlled with Chlordane.

Heating and soil sterilization--Harold Gray

Cooling greenhouses in summer months. Present time best recommendation is to make full use of vents, side vents included. Air movement increases as much as twenty times per hour. Make full and most effective use of ventilation you now have.

Other methods have been tried such as water cooling of roof, and misting inside the house but the equipment necessary is expensive to install.

Sterilization

Knaus of Stuart, Florida uses a cultivator-like fork which is down through the soil. Steam enters through teeth with steam coming out of teeth to a depth of ten inches. Moves very slowly with a piece of canvas about one hour's period. Has only been used in sand. The system depends on individual conditions.

Refrigeration--styrafoam board proving good material for insulation.

Diseases

Bacterial wilt on mums--minor during last year.

Anti-biotics--Control of bacterial wilt on mums has been reported.

Burton Smith--Pharmaceutical grade streptomycin was used and all cuttings were dipped in a solution of ten parts per million streptomycin. Dip also includes hormone and fungicide.

The vermiculite media was then drenched with solution of 10 ppm streptomycin. Dip also includes hormone and fungicide.

The vermiculite media was then drenched with solution of 10 ppm plus spreader at the rate of 5 gallons to 25 square feet immediately after sticking.

Hampton--Mums have advantage over other flowers because if held at 40°F, you can keep them from one weekend to another.

One grower used an established price year around directly to retailers with prices based on costs in relationship to final costs. January and February highest price of year. August and September lower price.

What product does and is important to get across public. Get them inbred with the feeling that they need and should use flowers.

Grades in relation to selling problem can be important in a selling job to the public. Comparison of grades to show public at retail selling point will help them to understand price differences.

One retailer suggested placing excess flowers in public places to whet their appetite for flowers.

John Hollberg, Englewood, Colorado related his supermarket experiences with carnations in Denver, at what was considered an attractive price for choice quality. Retailer resented project. Retailers in Montana and parts of Colorado boycotted firm while experiments were in progress. In stores where someone was present to sell flowers they moved. In outlets where they were just displayed, sales were extremely slow. Belief that customers would be pre-sold by advertising before such a setup will work satisfactory.