

CARNATIONS

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Supermarket channels were thought best for lower grade carnations aimed to provide a product suitable for a low-price mass-consumer market. The best or top grade was suggested for retail outlets. No SAF grading was being used at the present. Grading still is a sorting procedure.

Dr. Hampton feels that the basic problem in mass production was that of differential pricing for different grades. In selling, differences would be pointed out. Price alone will not move a lower quality product.

The florist industry has imposed very high standards on itself. Perhaps the possibility of producing a shorter flower, cheaper low-cost product would start a broader market.

Diseases

The use of antibiotics has a promising future for disease control. To date, the antibiotics have been effective as protectants to prevent diseases. Only a single isolated case reporting a cure up to 50% was

Carnations Con't.

achieved in a case of wildfire of tobacco. In the tobacco antibiotics, symptoms were suppressed. Antibiotics are promising especially for systemic diseases as Fusarium and bacterial wilt of carnations.

What is the cause of splits? Various factors were proposed as temperature, light intensity, and iron deficiency but the problem was not solved.

Rust is not considered a major problem. Fusarium and bacterial wilt are increasing, especially under favorable condition of hot summers. Wet stem rot is the number one problem present with steam sterilization of soil and sanitation the most effective control measures.

Propagation

Graded perlite, an expanded aluminum silicate of neutral pH and few impurities, is the latest in propagation media. Satisfactory results have been obtained with perlite alone, perlite plus sand, and perlite plus 30% peat. The latter mixture with a mist system is ideal for summer or late spring carnation propagation.

Advantages of perlite are:

1. It is impossible to over-water.
2. Does not break down with repeated steam sterilization.

The mixture of perlite plus 30% peat is prepared by screening peat through a 1/2 inch screen, soaked for 3-4 days; added to perlite and steamed to assure water penetration into peat. Plants propagated in this material increase the take of cuttings.

Misting

Misting, as discussed by Cornell, is a fog mist consisting of a very fine spray. Three methods of controlling mist systems are:

1. Time clock--mechanically set
2. Electronic leaf--plastic plate which, when dry, starts the misting system.
3. Light-meter--electronic system using a photo-

cell. This system based on the fact that water evaporation is proportional to light intensity regardless of temperature.

It was suggested that fertilizers be used in mist systems because under mist, carnation cuttings grow. Fertilization replaces leached nitrogen and prevents nitrogen deficiency. There is no danger in over-misting on carnations and that the purpose of misting was to have a water film to reduce leaf temperature.

Storage

Polyethylene was described as allowing an exchange of gases but prevented the removal of water vapor from the bag. Thus, it is an ideal container for storing cuttings. Polyethylene storage was reported as not affecting plant take-off after planting.

Insects

Phosphate resistant strains of red spider mite were reported by a Long Island grower. Aphids difficult to kill were reported by a Connecticut grower and Systox was the only material which controlled this strain.

Soil Sterilization

The use of canvas hose was discussed. To prolong its life, keep the hose dry when not in use, and reduce the velocity of the steam at the intake end of the hose. A baffle of burlap was suggested. Soil suitable for planting was considered the ideal moisture level for soil sterilization. Wet soil required extra steam; it was equally bad if soil is too dry because the dry top layer serves as an insulator preventing the penetration of steam and transfer of heat.

Plastic covers, if stored in a warm room, last longer.

Fin-pipe heating was available in 1 1/4" and there is no difference in cost of operation but there is a difference in the cost of installation. Fin-pipe heating was cheaper to install.