

STATUS OF THE PANSY INDUSTRY

Growing pansies is big business and like other phases of the floricultural industry new innovations in their production are coming into the picture. Most pansies are grown and handled as if they were perennials. That is, the seed is sown in August, previous to spring they are for sale, and then transplanted into slightly raised outdoor beds. A few are grown in cold frames.

The new method of production is to plant the seed in December or January and then transplant seedlings into small wooden or plastic flats such as is used for annuals. A few growers find it profitable to grow a portion of their production in individual peat pots.

There are problems in growing pansies outside. During severe winter conditions the loss of pansy plants may be high. Some growers have experienced heavy losses from leaf spot diseases; (*Ramularia*, *Cercospera* and *Phyllosticta*).

Outdoor grown plants usually bloom a little earlier and may bloom more profusely earlier. The plants started in December or January bloom a little later and not as profusely. However, the blooming is extended later into the season. These plants may be in bloom the next fall and the growth is usually more compact.

From our observation of the field grown product, we find that the big weakness is in handling and packaging. We find considerable variation in the number of plants in each unit. Four to ten plants per unit is not uncommon.

We also observe that the roots are not always properly packed or covered with soil. In some instances too much soil is taken up. In others the roots were badly damaged from taking too little soil. There would appear to be less injury and set-back when setting out young plants from the flat method.

PREPARATION OF SEED BEDS

The soil for the seed bed should consist of:-

2 parts good loam
1 part peat moss
1 part sand

The bed should be fairly level to prevent run-off when watered or from heavy rains. No manure should be added for it may result in an accumulation of ammonia.

STERILIZE THE SEED BED - Soil may be sterilized by one of three methods:-

A. Steam sterilizing - the oldest and most reliable method.

Soil structure - loose and friable.

Soil moisture - in good planting condition - not too wet, not too dry.

Cost - \$1.50 to \$2.00 per 1000 sq. ft. of bed area including equipment and fuel, but not labor.
Raise temperature to 180° F. for one hour at 6" depth. Use a thermometer.

B. Chemical methods:-

1. Vapam or VPM - carbamate materials - same soil structure and soil moisture content as for steam sterilizing.

Amount to use - 1 quart of Vapam to 100 sq. ft. or 2½ gallons per 1000 sq. ft. of bed area. Add this 1 quart to 3 gallons of water in a sprinkling can. Apply evenly over the area. Then apply a water seal of 15 - 20 gallons per 100 sq. ft.

Hose Proportioner can also be used very satisfactorily. It may take a little more time but you are reasonably sure of a good water seal.

May be covered with plastic such as polyethylene (gases accumulating under the cover are reported to give better weedkill at the surface of the soil).

Temperature - 55° F and above.

Waiting period - 2-3 weeks, depending on temperature, rain fall, type of soil, and amount of organic matter. Always test soil before planting into it by smelling. Vapam has strong pungent odor. A good test plant is a young tomato plant.

This chemical has proven to give good control of weeds, diseases, organisms, and nematodes.

Cost:- Approximately \$8.00 - \$10.00 per 1000 sq. ft. of bed area.

2. Methyl Bromide (MC-2 or Pestmaster) containing traces of tear gas.

Prepare soil as for steaming.

Rate - 1 lb. to 100 sq. ft. for weed control; 2 to 3 lbs. for disease control. Must have applicator and gas-proof cover.

Cover - vinyl plastic covers or polyethylene - 4 mil thick.

Cost - Approximately \$9.00 per 1000 sq. ft. of bench area for weed control; \$18.00 to \$27.00 for adequate control of disease organisms.

Methyl bromide controls weeds but is not as effective as a soil sterilant as steam or Vapam. Higher rates of 2-3 lbs. must be used to control diseases effectively but prohibitive because of cost.

Waiting period - Remove plastic cover and wait 72 hours before planting or seeding into treated soil.