

Cardinal Points of Replanting Carnations

1. Check the bottom of benches for proper drainage - and the only proper way that this can be done is to dig up several areas to examine condition of tightness of the boards.

2. Have soil analysis made a few weeks before removing the crop. If salts are high, the time to leach is before taking out the crop. The matured plants will help to dry out the soil faster and a better job of leaching can be done.

For proper leaching, it may take 3-5 gallons of water per square foot of bench or bed area.

3. A decision should be made concerning the addition of peat or sand and/or both. Carnations produce better quality and better production if roots have adequate oxygen for proper function such as picking up water and nutrients.

4. Adding lime and phosphate - Many growers took advantage of the Woodruff test for determination of total lime requirement of their soil. In general, 5-8 pounds of ground limestone (a dolomitic type) to each

100 square feet should correct the pH of any peatmoss added and maintain the proper acidity during the year. During the past two years most growers have been able to hold the pH at proper levels as a result of adding more limestone.

We suggested adding a dolomitic lime. This kind of lime has a considerable amount of magnesium oxide in it and we believe that this element is essential to good growth.

Too much phosphate can be detrimental to good soil conditions for best production. Usually 5 pounds of a 16 percent  $P_2O_5$  content to 100 square feet is adequate, especially with the addition of future feedings of phosphate as it comes in such formulas as 12-12-12, 20-20-20, 16-8-24 or one of similar analysis. Both lime and phosphate should be added before sterilizing the soil.

5. Soil sterilization - The common method in Massachusetts is to steam sterilize the soil each year. There is no change in the temperature or length of time, 180° F. for one hour should do a good job. If it takes more than four hours to do the job, then you may need to consider reducing the area steamed or raising the steam pressure.