

OUR QUESTION AND ANSWER DEPARTMENT

Readers of The Horticulturist are invited to submit Questions on any phase of Horticultural work

Grafting Wax

I desire to top-graft some apple trees. What are the ingredients and directions for making a good grafting wax?—M. T. S., Falmouth, N.S.

The following formula has been used for many years with satisfaction, as it does not melt and run down the tree by the heat of summer or crack by the cold in winter: Resin, four parts; beeswax, two parts, and tallow, one part. Melt the ingredients in an iron vessel over a slow fire, mixing thoroughly and taking care not to burn. When well incorporated, in half an hour or so, pour convenient portions from time to time in cold water, and when sufficiently cooled in a minute or less, take out and pull like taffy until it becomes light colored, when it may be made into rolls three or four inches long and an inch in diameter, for convenience in use. A little tallow, as little as possible, will be necessary on the hands to prevent sticking. As the sticks are made they should be placed in another vessel containing cold water to harden, after which they should be put away in a cool place until they are wanted for use.

Thomas Slag for Peaches

When commercial fertilizers are used on orchard soils, is it necessary to plow them down? How much Thomas slag per acre should be used for peach trees growing on light, sandy soils?—J. S., Beamsville, Ont.

I do not think that it is good practice ever to plow down commercial fertilizers. They should be sown on the surface and then harrowed or worked into the surface soil. They will find their way down quickly enough. For peach trees growing on light sandy soil, Thomas phosphate may be used at the rate of 300 to 400 pounds an acre, and on such soil it might be well to use some potash fertilizer in addition to the Thomas slag.—Answered by Prof. R. Harcourt, O.A.C., Guelph.

Pruning Small Fruits

When should I prune grapes and small fruits?—J.P., Toronto.

Grapes and small fruits may be pruned in spring before growth starts. March is a good month for the work.

Nitrate of Soda for Lawns

Will nitrate of soda improve a lawn that is bare in spots and moss-grown in others? When should it be applied, and how much per square rod?—B. McN., St. Stephen, N.B.

It is hard to give a definite answer from the conditions given, but I fear that, if the lawn were moss-grown in

spots, the soil is somewhat sour or acid, and, therefore, I would recommend the application of some manure, which would neutralize the acid. This the nitrate of soda will not do. It is quite probable that the use of some Thomas phosphate, which contains a considerable quantity of lime besides phosphoric acid, would correct the sourness. This might be all that the soil needs. If from known conditions it is considered that the ground is fairly rich, it may be that the addition of lime would correct the acidity and would be sufficient. If it would not, I would be inclined to apply Thomas phosphate, some nitrate of soda, and some form of potash fertilizer. The different constituents may be applied in the early spring. If nitrate of soda is used, this should be applied in the growing season, and then in very small quantities or it will burn the leaf.—Answered by Prof. R. Harcourt, O.A.C., Guelph.

Treating Primroses

What shall I do with my primroses after blooming during the winter?—Mrs. A. J., Knowlton, Que.

The uncertainty of next season's blooming, and the care required during the summer make it unprofitable to carry the plants over. Start new plants from seed or purchase new ones from your florist at the proper season.

Plants for Water Garden

Will you name the best plants to make a small water garden, six by nine feet, and the number that would be likely to grow in such a small space?—M.M., Toronto.

Plant two tubers of *Nelumbium speciosum* at one end in a space separated from rest of pond by a 10 or 12 inch board on edge. If hardy lilies are planted probably one of the stronger growing varieties would fill the rest of the pond—*Nymphaea marliacea rosea* (pink), *N. m. chromatella* (yellow), or *N. m. albida* (white) are vigorous growers, free and continuous bloomers. Two less vigorous but otherwise as good varieties might be tried, say *Nymphaea tuberosa rosea* (pink), and *N. t. maxima* (white). If tender lilies are planted, one of either of the following would do, viz., *Nymphaea Devonensis* (pink, night blooming), *N. dentata* (white, night blooming), or *N. Zanzibarensis* (blue, day blooming). Two or three plants of Umbrella Grass, *Cyperus alternifolius*, or *Papyrus antiquorum* in pots might be stood in the pond, not submerged. The little Water

Poppy, *Limncharis Humboldti*, is pretty and takes up very little space.—Answered by A. H. Ewing, Woodstock, Ont.

Mildew on Plants

What causes mildew on plants, and what is the remedy?—W. M. C., Newcastle, N.B.

Mildew is a fungus that develops rapidly in damp weather. Flowers of sulphur dusted on the leaves when they are damp will prove an effective remedy.

Diseased Lettuce

Am bothered with rust on lettuce in green-houses. Free from disease last winter, but had considerable the winter before. The seedlings were fine and healthy this season, so cannot account for rust. Kindly state the cause of, and remedy for this disease.—A. B., Stamford, Ont.

We are not certain what the disease referred to is, as there are several diseases that affect lettuce, none of which is known by the name of "Rust." Names of these diseases are the Grey Mould, Sclerotium disease, the Drop or Rot disease and Downy Mildew. As it is difficult or practically impossible to treat these diseases by spraying, some other means must be found. The plan usually adopted is to sterilize the soil. If it is not found practicable to sterilize all the soil, it is wise to treat as much of it as possible, even an inch on the surface very often will check the spread of the disease to a large extent. The use of fresh manure should be avoided and old soil should not be used unless sterilized. The lettuce house should be kept as well ventilated as possible.—Answered by W. T. Macoun, Dominion Horticulturist, C.E.F., Ottawa.

Grow or Buy—Which?

Should the gardener grow or buy his vegetable seeds?—D. B., Renfrew, Ont.

The latter is much the wiser and safer plan. It is better to purchase seeds from those who make a specialty of growing them. Such men can afford the time, labor and expense required to secure seeds of the best pedigree or strain. The ordinary grower's method of seed selection at home is to save the seed only from plants remaining in the garden after the best specimens have been gathered for market; while the best seed is that which has been gathered from the best plants of the best strain. Occasionally the gardener may raise his own seeds with advantage, as in the case of one who is making a specialty of growing a particular class or variety of vegetable.