

The Orchard and Vineyard

Contributed by the Horticulture Division

Orchard Notes

Spraying to Control Insect Pests

THE first indication of approaching spring will be in evidence early in August in the swelling and bursting of buds on some of the early flowering stone fruit trees. Because of the uncertainty of the weather at this time of the year, every advantage should be taken during fine days to push on with all seasonable work as it becomes due. The following operations should receive attention and be prepared for:—

1. Complete all pruning as early as possible.
2. Prepare for spraying stone fruit trees for fungus diseases.
3. Complete the preparations of any land for planting.
4. Arrange for the application of manures.

Spraying

Unless insect pests have had to be dealt with, the spraying plant will have had little use during the past three months. However, early August will see it again in operation, which will be almost continuous throughout the season. The first trees to receive attention will be the stone fruits for the control of fungous diseases. The following are some of the principal diseases which can be prevented if spraying is done at the correct time:—

Peaches and Nectarines: Leaf Curl (*Taphrina deformans*).

Plums: Bladder Plum (*Taphrina Pruni*).

Apricots: Shot-hole (*Phyllosticta Prunicola*).

If not prevented, the leaf curl on peaches and nectarines attacks the foliage and gives it a puckered and distorted appearance, which is noticeable in the early spring, and is caused by the parasitic fungus indicated above. The disease becomes more

aggravated where the trees are subject to cold winds, but this is not the primary cause. The foliage eventually falls, and new leaves are produced to replace them.

The strain on the vitality of the tree caused by defoliation and by the production of new foliage is constantly weakening the tree, resulting in some cases in the partial or total loss of the crop.

The diseases mentioned can be controlled or prevented by an application of a fungicide. A fungicide is merely a material capable of controlling fungi by reason of its toxicity to this form of plant life. The principal fungicide in practical use for this purpose is Bordeaux mixture, which is perfectly safe to use. It is possible by logical and correct applications to prevent the development of fungi on plants or trees, so that a thorough application of Bordeaux mixture 5-4-50 should be made just as the buds are beginning to swell. One application is usually sufficient, but if a variety is very susceptible to the disease, a further application of 3-4-50 can be made when the buds are showing pink.

Insect Pests

Insect pests which have to be contended with in fruitgrowing include the green aphid, which has often proved troublesome, especially on young trees, and which, if neglected, may cause considerable damage. These can be controlled by spraying with lime sulphur 1-150 plus 1 pint of nicotine sulphate to 100. If the application is made under cloudy conditions the spray will be more effective.

Red spider, which becomes very troublesome in most districts from December onwards, is somewhat difficult to control, but can be kept reasonably well in check if spraying is

carried out as instructed in the "Journal" from time to time.

Woolly aphid, which at one time caused considerable damage to many of the best leading varieties of apples, is now kept well under control by the natural enemy *Aphelinus mali*.

Planting

If the soil has not already been prepared, it would be better to delay planting for another year, but if the land has been well prepared, the planting may be done when the

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