

In circumstances where a green crop has been sown and has not reached a sufficient height, it is as well to delay the ploughing for a while, to obtain the benefit of any additional growth the crop may make during late autumn and early winter. The soil is greatly benefited by being exposed to the winter frosts and rains. To facilitate the surface drainage the land should be ploughed with the fall, and not across the slopes. Plough to the trees, leaving an open furrow along the centre of the land between the rows of trees.

It is recommended that deep-ploughing should be done, towards the centre of the rows, in autumn, as the effect of any injury to the feeding roots at this time of the year would be less than when the trees are in growth. When ploughing close to the trees shallow-ploughing is advisable, as otherwise serious damage to the root system may occur, which would result in a considerable check to the growth of the trees.

Applications of phosphatic and potassic manures may be made during the autumn just prior to the ploughing of the land. Soils requiring lime may be top-dressed with approximately 1 ton of carbonate of lime per acre. The application of the quickly acting nitrogenous fertilizer may now be delayed until the spring.

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Citrus Culture.

By the time these notes appear in print the month of April will be practically over so that winter weather conditions will be close at hand, if they have not arrived already. In the notes for almost every month mention has been made of the application of sprays—Bordeaux mixture, summer oil, &c.—and it is just possible that critical readers may say that according to the writer one should be spraying almost continuously. This, of course, is exaggerating the case, although it would be safe to say that owing to the unfavourable weather conditions which have prevailed during the past two years, particularly with regard to the incidence of fungous diseases, more than the usual amount of spraying has been necessary. These notes are intended to be a guide and a reminder for the grower which may be expected to be necessary under certain conditions. It is for the individual grower to work out and adopt his own programme to suit the particular requirements of his own grove. The local Orchard Instructor is always available to assist with advice if required. Although it is advantageous to exchange views with one's neighbours it does not necessarily follow that the same time-table and spray programme should be carried out unless all conditions are identical. A few basic principles which may be used in determining the disease-control programme are—Prevention is easier and less costly than cure; spray applications if applied at the correct strength and at the right time are good insurance against loss of crop, and thus loss of the whole year's labour; thorough work is absolutely essential, as also is an efficient spraying plant; the trees should be kept in a condition which makes good crops a reasonable certainty, not a doubtful possibility.

Apart from spraying, however, there are often other matters in connection with disease-control which require the careful consideration of the grower. One of these is drainage. Instances have come under notice of patches of orchard containing a few trees which were always infected with fungous disease while the balance of the orchard was clean. Investigation revealed the fact that in these patches the soil was water-logged, and in hot weather the humidity around the trees was excessively high. Improvements in drainage eliminated the trouble. It may be that, in cases where it is particularly difficult to control fungous diseases, the drainage of the whole orchard is poor, in which case extra money spent on improvements in this direction should be well repaid by better fruit and reduced spraying-expenses. Physiological diseases, such as die-back, are often caused by poor soil drainage. Lack of shelter is often the indirect cause of a fungous disease,