

quent damage to the tree from the unchecked disease. In spraying, as in pruning, the objects aimed at should be clearly understood; the right materials should be selected and carefully mixed, and applied at the correct strength, at the right time, and at a pressure sufficient to do the work thoroughly.

The same considerations apply to cultivation. Cultivation is not intended simply to hide weeds and rubbish and to make the orchard look pretty. The objects of cultivation, briefly stated, are to break up and aerate the soil, and to provide fresh plant-food and moisture for the tree to feed upon. This alone demands that the work should be thoroughly done.

DRAINAGE.

This is a matter of the greatest importance to the health of an orchard. Many fruit-trees fail to thrive mainly owing to bad drainage. A thorough drainage scheme should be carried out before the trees are planted at all, but where this has not been done, or where additional drains are found to be required, they should be laid with as little delay as possible. Although existing drains should have been attended to earlier than this, it is better to be late than never. All open drains should be cleaned out, and broken or defective pipes in others renewed. Low-lying, badly drained parts of the orchard, easily discernible now, should be attended to straight away.

SPRAYING.

Where not previously attended to the following pests will require attention: Mussel scale, San Jose scale, brown, black, and red scale, &c., woolly aphid, mealy bug, and red mite.

Emulsified oil is the standard remedy for the whole of the above-mentioned sucking-insects, but the strength at which it should be applied varies slightly according to the class of tree affected. Pip-fruits require and will stand a stronger mixture without injury than stone-fruits, while citrus fruits require a still weaker mixture than stone-fruits. Moreover, some of the pests themselves succumb to a weaker spray than others. Mussel scale and red mite require a stronger mixture than San Jose scale or the other scales. Woolly aphid and mealy bug are about equal. With these more depends upon the force and thoroughness of the application than on the strength of the spray used. The best plan in spraying for the control of these insects is to base the strength of the spray upon that required to destroy the hardiest insect found affecting the tree.

July is the popular month for the application of oil sprays, excepting where two applications are being made for woolly aphid,