

with codlin-moth control; at this stage fungus diseases are also liable to be troublesome, rendering spraying for these alone of the utmost importance. Therefore if a combined insecticide and fungicide is used both purposes can be served at the same time. At this stage of growth, however, the tender nature of the skin of the fruit must be taken into consideration, and a spray somewhat weaker than is required for either purpose later in the season should be used.

POWDERY MILDEW.

Of recent years powdery mildew has been increasingly troublesome to many of the weaker varieties of apples. Not only does this disease by affecting the foliage very detrimentally influence the growth and general health of the tree attacked, but it also renders the leaves more liable to spray-scorching, with the result that the tree receives a further check. Such constitutionally weak trees as the Jonathan, when called upon to withstand a bad attack of this kind—particularly when combined with other neglect, such as underpruning, overbearing, &c.—are often rendered quite useless by the time they are ten years old. If taken in hand, however, powdery mildew is not a difficult disease to deal with. An affected tree should be pruned in the winter and otherwise treated so as to encourage growth. All affected growths that escape the winter spraying should be removed as soon as fresh growth commences, when such parts become plainly evident by the white powdery appearance of the foliage. Also, as soon as the buds burst the tree should be sprayed with either lime-sulphur or atomic sulphur at the strengths mentioned further on.

BROWN-ROT.

A good deal has been written recently with reference to this disease (see last month's *Journal*), but it may be well to repeat that a systematic thinning, which is essential in any case to good-quality fruit, will materially lessen the difficulty of keeping the disease in hand, particularly when combined with the careful destruction of all affected fruit at frequent intervals.

SPRAYING AND SPRAYS RECOMMENDED.

Black-spot (colour-bud spray).—Pears: 6-4-50 bordeaux, or 1-20 lime-sulphur. Apples: 3-4-40 bordeaux, or 1-25 to 1-30 lime-sulphur.

Ditto (when fruit has set).—Pears: 2-3-40 bordeaux, or 1-125 lime-sulphur. Apples: 2-3-40 bordeaux, or 1-125 lime-sulphur.

Ditto (subsequent sprayings).—Pears: 3-4-40 bordeaux, or 1-100 lime-sulphur. Apples: North Island, 1-100 to 1-120 lime-sulphur; South Island, 1-120 to 1-130 lime-sulphur.

Codlin-moth.—When fruit has set, paste arsenate of lead, 1 lb. to 50 gallons of water, combined with either bordeaux or lime-sulphur at the above strengths.

Powdery Mildew (colour-bud spray).—Lime-sulphur, 1-25 to 1-30, or atomic sulphur, 10 lb. to 100 gallons water.

Ditto (subsequent sprayings).—Lime-sulphur as for black-spot, combined with arsenate of lead. Atomic sulphur, 8 lb. to 10 lb. to 100 gallons water, with 3 lb. of arsenate of lead added.