

convenient time instead of being restricted to the busy time of sowing. Full information about the effective dusting of the seed of wheat and of other cereal crops is obtainable from officers of the Fields Division. The treatments of seed of oats and barley is just as advisable as is that of seed-wheat, unless it is quite definite that the crop is being grown only for green feed.

#### General Work with Crops.

Oats for winter and spring feed and subsequent grain-production should be sown not later than April or early May. Generally they respond profitably to the use of 1 cwt. to 2 cwt. an acre of phosphatic manure in which superphosphate is the dominant ingredient. The proved kinds of Gartons may be looked upon as the best all-round oats for the South Island. Gartons does not stand feeding-off to the same extent as Algerians, and should be fed-off once only and that feeding-off should be done quickly. Algerians, which are best when autumn-sown, are much used, with success, for green feed: they can be fed-off both in autumn and spring, and provide good chaff.

Quite often maize and millet grown for green feed suffer damage from autumn frosts. To avoid such damage these crops should be utilized during April, and preferably in the first half of the month. When abundance of other feed makes unnecessary the feeding to stock of these crops in a green condition, as is likely to be the position often this year, then they should be conserved preferably as silage.

Swedes which have suffered a serious attack of dry-rot should be fed off without unnecessary delay if they can be utilized to advantage.

Sometimes after the last cut of the season lucerne is grazed, and, in consequence of the trampling of the stock, the land is consolidated. The consolidation favours the invasion of the lucerne by weeds, including grass and clover. When it is desired to maintain the stand of lucerne as pure as possible, then late-season grazing of it is clearly inadvisable: it is especially so in districts of good rainfall in which weed-invasion is one of the worst troubles in lucerne-growing.

—R. P. Connell, *Fields Division, Palmerston North.*

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## THE ORCHARD.

### Spraying.

GROWERS are advised not to discontinue the application of arsenate of lead at too early a date. Codling-moth and leaf-roller caterpillar are usually still active, and it is therefore advisable to continue with the arsenical application until a few weeks prior to picking.

As the danger from black-spot infection is not yet passed, it is advisable to continue with fungicidal sprays for a while longer on susceptible late varieties of apples and pears. Where brown-rot fungus has been troublesome a careful examination should be made, and all mummified fruits removed from the trees and ground and destroyed by burning. In addition to this, an application of Bordeaux 5-4-50 is recommended, and should be made as soon as possible after the fruit has been picked, to assist in controlling the disease.

Orchardists should investigate thoroughly the results obtained during the season from the spraying-compounds used and the methods employed in preparation and application. When unsatisfactory results are obtained something is wrong. Factors which contribute to success are the thorough application of sprays at the correct times, use of the correct compounds, proper mixing of sprays, and an elementary knowledge of the life-history of pests and diseases.