

the roots of the young trees and kills them. Is there anything I can put in the soil to prevent it? Is the root-fungus likely to carry off the trees wholesale or just an odd one here and there?

The Horticulture Division :—

The rubbish and fern and tea-tree which you say has been ploughed in must be a source of danger of root-fungus attacks, though in similar cases trees have not been extensively affected, but only trees here and there. No one can foretell the extent of the damage, if any. Recognizing that the rubbish is a source of danger, you should take opportunities to burn any of it brought up by harrowing or other means. A dressing of lime—1 ton per acre—would be beneficial. If the trees show signs of attack a dressing of lime and sulphur may be given around them; it has been known to have good results. About 3 lb. lime and 1 lb. sulphur per tree would suffice. Sulphate of iron is also advised, 2 lb. to 3 lb. to each tree up to about five years old, increasing the amount for older trees. Kainit is considered to have resistant properties against root-fungus. For young trees 1 lb. per tree would be sufficient, spread round the tree over a radius of 3 ft. to be applied in spring.

BARREN EARS IN MAIZE CROP.

H. E. VAZEY, Opotiki :—

In plucking my maize this year I found for a considerable distance in the row good and well-filled cobs of grain, and then half a dozen or more stalks with nothing but empty husks, and so on right through the crop. Would it be the fault of the wet season, or is the seed to blame, it having been saved from the same source year after year? The soil on which this crop was grown is light, fairly low-lying, cabbage-tree swamp, with pumice down about 3 ft.

The Fields Division :—

A percentage of barren ears occurs in all crops, and it is held that the planting of maize which has been grown for a number of years in the same environment *without selection* tends to aggravate the trouble. The view is also held that barrenness is more of a seasonal manifestation than an inherited characteristic. The matter is under investigation by maize-breeders. It would be well for you, at any rate, to procure a change of seed from a grower located on heavier land, preferably choosing your cobs out of the crib, and topping and tailing them. Try also the effect of 1½ cwt. per acre of superphosphate with the crop.

RAISING SEED FROM FIELD-ROOTS.

"NOVICE," Ngapara :—

I have pitted several choice samples of Long Red mangels, Yellow Globe mangels, carrots, parsnips, and beet with the object of raising seed from them. Kindly inform me when these should be replanted, and how. Should the whole of the root be embedded in the soil? Will it hurt to cut off some of the long tapering root? Also will the seed from roots pitted be any better than seed from those left as they grew?

The Fields Division :—

The selected roots mentioned should be placed in the ground in the spring when all danger of frost is past. They should be set in the ground to the full extent of the root, and the inflorescence or flowering and seed-bearing portion will require staking and tying later. The root should not be cut except in the case of parsnips, when only the thinnest tapering portion can be severed. The seed from the roots left as they grew should be as good as, if not better than, the seed from pitted roots, provided that they are selected for quality and size as are the pitted roots, and provided that the roots withstand winter injury, which is likely to occur in localities of much frost or much rainfall prevalence. As this withstanding is a doubtful factor in your district, it would be advisable for you to pit the selected roots or to store them in sand in a dry cellar until ready to set out. As mangels cross-fertilize rather readily, it is also necessary to keep the various varieties a good distance apart—in separate fields if possible.