

fail to grow, and the subsequent result will be practically the same as that described by you. After inserting the bud the edges of incision should be held in place by lightly binding with raffia—the material generally used for this purpose. January and February are generally recognized to be the most suitable times for budding the classes of fruit mentioned, but the work can be successfully performed over a longer period. Budding generally is more likely to be successful if carried out shortly after a moderate fall of rain.

MILLET AS GREEN MANURE.

G. L., Te Puke :—

Is millet of any value to plough in for green manure? How does it compare with other things for that purpose—say, barley?

The Fields Division :—

Pound for pound barley contains a little more nitrogen and ash than millet, but as the latter would produce a greater bulk of green material it would equal, if not surpass, barley for green-manuring purposes. Of course, barley could be grown during winter for the same purpose when millet could not.

ARTICHOKES.

D. G. GORDON, Taoroa, Taihape :—

Could you give me information as to growing Jerusalem artichokes, and their value as pig-food? What kind of soil do they need, and are they subject to frost or blight?

The Fields Division :—

The two varieties of artichokes principally grown are the white and the purple-skinned. There is practically no difference between them. They provide good feed and shade for pigs, the pigs helping themselves to the tubers. Artichokes grow well even on gravelly or sandy soils that otherwise might be waste ground on the farm. The soil requires to be well worked, however. The tubers are planted out like potatoes in hills about 2 ft. apart in drills 3 ft. apart. Place one set in each hill. Potash manures give best results. We would advise a little superphosphate (about 1 cwt. per acre) and wood-ashes (3 cwt. to 4 cwt. per acre). The tubers can be planted in the early spring (August or early in September). They respond to systematic intercultivation as do potatoes. As far as is known, they are not usually affected with a blight of any kind.

LUCERNE ROOT-FUNGUS.

T. P., Ohaupo :—

Some sort of blight or decay has made its appearance in my lucerne. It starts in a few plants and gradually spreads, the tops turn yellow and die off, and the roots rot, so that when they are pulled they break off a few inches below the surface. The paddock was laid down in December, 1913, with 1 ton of lime per acre. The first affected patch appeared about twelve months ago. As soon as I noticed it I spread lime very thickly over it, and dug it in right back into the good lucerne, which checked it for some time, but it has gone on spreading this summer and several more patches have appeared. I am sending a sample of soil and decayed roots.

The Biology Section :—

The lucerne specimens forwarded are attacked by a fungus root-disease known as *Rhizoctonia*, which forms a dense mass of minute interweaving threads, mainly about the roots, upon which it lives parasitically. The roots of many other plants are attacked by this disease, notably beans, beet, carrot, cabbage tribe, and potatoes. Acidity of soil through poor drainage favours its spread, but the