

a nice black soil, but below this we get what we call "bastard clay." I have never attempted to plough such hard ground before. Instead of the shear cutting clean underneath the sod, the soil and clay stuck together, and would lift right out of the furrow, leaving holes from 8 in. to 10 in. Next time I came round the plough would be buried up to the axle of the disc, while in other places it would scarcely skim it. Now, this flat runs alongside the Mohunga drain, which empties itself into the Waipaoa River. There is very little fall from here to the river, so that when in flood it banks up the drain, and all the flats are under water until the river goes down, which as a rule is about a day and a half. Farmers about here say that I have done a very foolish thing to plough up this ground, as it is too wet for lucerne. Only one man about here has tried it. In summer we have to dig from 18 ft. to 20 ft. for water. Now, sir, if you will give me your opinion I shall be pleased to follow your advice. As it gets so dry in summer we must have feed for our cows, and we do not mean to sit down and trust to the grass. We are putting in a few acres of silver-beet for sheep also. Can we buy inoculated seed? What is the best sort of seed to sow? Does the Department sell seed? Is basic slag good for sour country?

The Director of Fields and Experimental Farms Division replies,—

From the description of the land it is doubtful if lucerne would succeed on it. The plant will not grow on swampy land, or land where water would be on the surface as long as stated, and free water must not be present in the soil continuously too near the surface. It does no harm to have the lower roots reach permanent water. Lucerne succeeds on a variety of soils, but reaches its greatest perfection on deep alluvial sandy loams of river and creek valleys or bottoms. It prefers a light soil to a heavy one, but in many localities is grown in heavy black soils and seems to do well. Lime is its favourite mineral element. If the inquirer should decide to try this plant I would advise a heavy dressing of lime—up to 1 ton per acre. The land should be ploughed and the lime applied, and then let lie fallow until spring. In addition, an application of basic slag at the rate of 3 cwt. or 4 cwt. per acre before seeding would have a most beneficial effect. Inoculated soil can be purchased from this Department. It should be applied at the rate of 3 cwt. per acre at the time of sowing. Either Hunter River or Marlborough grown seed would be the best to sow. These can be procured from any firm of seedsmen.

BURR-CLOVER SEED.

"INQUIRER," Flaxton:—

Could you inform me through the medium of the *Journal* if burr-clover seed is procurable in the Dominion?

The Director of Fields and Experimental Farms Division replies,—

Burr-clover seed would be difficult to obtain in the Dominion. The F. H. Brunning Proprietary (Limited), 64 Elizabeth Street, Melbourne, Victoria, stock this seed.

LIME.

MR. CHARLES BROWN, Hinuera:—

I wish to get a few tons of lime for the land. Can I get the desired information in the *Journal* as to where it can be had at a nominal cost?

The Director of Fields and Experimental Farms Division replies,—

Agricultural lime may be obtained from the Wilson Portland Cement Company, Te Kuiti.

FEEDING STUD SHEEP.

MR. H. S. THOMPSON, Papanui, Christchurch:—

Will you kindly inform me through your *Journal* how to feed stud sheep for show purposes, together with any other information you may have on the same subject?