

## The Fields and Experimental Farms Division replies,—

The experience of the Department is that south of Auckland paspalum should be avoided with the greatest discretion. It appears undesirable to introduce this grass on to fertile lands. It there has the effect of dominating other and more useful plants. It is also to be doubted if its average nutritive qualities are developed in comparatively cool districts. It is a semi-tropical grass, and it requires warmth to develop its most desirable properties. It is probable that it is most useful on poor soils. It flourishes under all conditions, provides a large quantity of feed, and is eaten by stock where the other grasses are but poorly developed. In the more northern districts, and in Australia, paspalum is esteemed. The general recommendation is to avoid its use on fertile lands, and to use it with discretion on poor lands. It undoubtedly grows very closely, and may have some effect in destroying Canadian thistle in certain localities.

## SOIL CHEMISTRY.

MR. A. R. BARTLETT, Oak Farm, Silverdale, writes,—

I wish to study the chemistry of the soil, and would be very grateful if you could inform me of text-books and apparatus necessary.

## The Agricultural Chemist replies,—

The following works are suggested :—

Title.	Author.	Publisher.
Agricultural Chemistry ..	Adie and Wood	Kegan Paul.
The Soil .. ..	A. D. Hall ..	John Murray.
Soils .. ..	Hilgard ..	Macmillan and Co.
Agriculture in Some of its Relations with Chemistry .. ..	Storer ..	Sampson, Low, and Co.

You will learn from the books the apparatus required.

## EXTERMINATION OF RATS.—CIDER.

MR. JOHN RICH, Karoola Orchard, Havelock North, writes,—

Have you anything giving information as to the best way to clear a lot of farm buildings of rats? Have you anything dealing with the making of cider?

## The Live-stock and Meat Division replies,—

Phosphorized pollard as is generally used for rabbit-poison is most effective, provided the rats are allowed to steal it.

Procedure: Prepare a quantity of pollard, as if intended for rabbit-poison adding sugar and a little salt, but without phosphorus. Put the dough into a number of soup-plates or shallow dishes, putting as much fat on the top as will, when dissolved, cover the dough a quarter of an inch thick all over. Put the plates in an oven until this is accomplished, and let stand until cool, when the fat will have become hard. Distribute the plates in the most suitable places about the buildings. The rats will soon discover the bait, cut through the fat, and eat the dough from underneath, usually through a single opening, leaving the fat practically undisturbed. In two or three nights the dough will be all taken. Lift the plates, and after cleaning them thoroughly, refill with phosphorized pollard about the same consistency as the previous bait; cover up with fat as before; allow one night to elapse, and replace the plates in their former positions, when a heavy slaughter may be expected. By this process there is practically no danger of poison being dropped by the rats, who have a tendency to carry food, &c.

## The Orchards, Gardens, and Apiaries Division replies,—

Full particulars on cider-making appeared in the April *Journal*, 1911 page 249