A Useful Home-made Roller

PART of the farm of Mr. G. Anderson, of Matakana, consists of rather heavy clay flats with poor natural drainage. After the winter stocking, when the land begins to dry out in the spring, the fields are invariably very badly pugged by tramping, and consequently are very uneven and difficult to mow when used for hay or ensilage.

In order to level the surface Mr. Anderson decided to try the effect of a heavy rolling in the spring, choosing a time when the ground would be beginning to dry out and just in the right order to derive the most benefit. As the rolling was largely in the nature of an experiment, the purchase of a roller was scarcely justified. Neither could one be borrowed, as rollers are not commonly used in the district. Moreover, the operation called for a smooth roller, and one which would be exceptionally heavy in proportion to its diameter, to ensure the maximum levelling effect.

It was obvious that low cost was scarcely compatible with this specification, so Mr. Anderson decided to make one for himself. As will be seen from the illustration, the roller has been constructed from two iron drums. These were filled up solid with concrete, and provision for a through axle was made by placing a length of piping up the centre of each drum before filling in the concrete. The axle itself is made from a length of 1½in steel shafting taken from an old top-dresser. This is simply inserted through the iron piping, bearings being provided at the middle and at each end. As will be seen from the illustration, the framework has been constructed from timber, provision being made in front for a sledge foot to prevent any tendency for the roller to over-run the horses, which might result in "digging in."

This roller has now been well tested out for a number of seasons, and has proved extremely satisfactory. Being in two sections, it turns easily without damage to the turf. As it weighs approximately one ton, and as the circumference is relatively small in proportion to the weight, the result is a correspondingly high pressure, which very effectively levels out the pugged-up ground. The roller can be pulled by two horses, but, because of its weight, three horses are to be preferred for a full day's work.

The roller described in this article. Note the provision made for a central bearing to prevent bending of the axle and the sledge foot in front to prevent 'digging in."

Mr. Anderson emphasises that the success of the rolling depends largely on the choice of the proper time. If the ground is either too wet or too dry, the work obviously cannot be satisfactory. Apart from levelling the ground, the rolling has also greatly benefited the pastures, as depressions which would normally lie full of water, are thus filled in and become quickly grassed over, greatly improving the density of the sward.

—P. S. SYME, Instructor in Agriculture, Warkworth.

Answers to Correspondents

Growing Swedes Twice In Same Ground.

"SUBSCRIBER" (GISBORNE)—

I am writing for information on growing swedes a second time on the same ground, as in this district they often get the brown-heart and are a failure even if borated super is used. I would also like to find out if any of the softer varieties of turnips are less liable to this disease.

FIELDS DIVISION—

The risk in growing swedes on the same ground twice is in the stronger reinfection liable to occur from disease, particularly dry-rot and club-rot.

With early sowings, dry-rot with secondary wet-rots developing is usually more prevalent with the earlier sown crops. Brown-heart is satisfactorily controlled with borax, and some farmers broadcast up to 10 lb. per acre before sowing. The recommendation is to broadcast at least 20 lb. per acre and sow basic super or borated basic super every second coulter with the swedes. Pre-drilling or broadcasting borax and super does not affect germination, and may be done just before sowing, but when drilling seed and manure basic super is less liable to cause germination injury, and the quantity of borax sown with the seed must be kept down for the same reason.

When sowing with the seed every second coulter 8 lb. of borax with 2 cwt. of basic super per acre is recommended. Heavier sowings are liable to reduce germination unless the seed is sown every coulter, which halves the fertiliser in contact with the seed. Sowing time is during December.

Swedes and turnips are both liable to be affected by brown-heart, but turnips are fed off at an early stage of maturity. Some swedes are more resistant to dry-rot, brown-heart, etc., than others. Vilmorine has proved resistant, but is hard, white fleshed, and fangy rooted. Often a little chou moellier is sown with the swedes, or as a crop instead of swedes. The same recommendations with regard to fertiliser would apply.