

to seed it will make a second growth. Where there is doubt about the rape crop it is good practice to drill $1\frac{1}{2}$ lb. rape and 12 lb. of millet per acre. If both come away well there is a good mixed crop of splendid feeding-value, and if the rape fails the millet will give good forage. If a millet crop is not required for grazing it may be cut for hay or ensilage.

Peas for sheep-feeding may still be sown on the heavier land. Good varieties are Grey Partridge or Blue Imperial, sown at the rate of 3 bushels per acre. Superphosphate or basic super is a suitable manure for late-sown crops.

TURNIPS AND CARROTS.

Sowing of turnips will be one of the chief field operations in November, especially in the mixed-farming districts of the South, and attention should be paid to securing the best of seed. On club-rooted country an endeavour must be made to grow turnips only on land free from this disease. In order to get the crop well away out of reach of the fly it is important to work to a fine seed-bed and use a good dressing of quick-acting manure, such as a mixture of basic super and blood-and-bone. For early use Mammoth Purple-top is a good variety of soft turnip, but where the crop is to stand any length of time Green Globe and Red Paragon are better. The Green Globe variety keeps better than the Red Paragon.

Where turnip-growing is practically out of the question the growing of carrots should be considered. White Belgian, Matchless White, and Sinclair Champion are varieties worthy of trial, and should be sown at the rate of from 1 lb. to 2 lb. of dressed seed per acre. The ordinary method is to sow in drills 14 in. to 28 in. apart. For milking-cows the carrot may be considered superior to any other root crop.

In connection with root-growing, there is now on the market a one-horse single-disk ridger well adapted to the requirements of the average dairy-farmer who crops to a limited extent only.

LUCERNE.

Usually the weather in November (in the North Island at least) is not suitable for making hay, and the better proposition is to put the first cut of lucerne into ensilage, or feed it out green to cows and pigs. Lucerne cut towards the end of November should be ready to cut again early in the New Year, when it may be harvested for hay or fed out green. Lucerne is required at different times and for different purposes to suit varying conditions of farm and situation, and a great deal can be done to regulate this by means of the spring cuttings. Although it is recognized that there is a proper time for cutting lucerne—just when the new growth is coming away—it will not impair the stand if cutting is delayed for a time; in fact, the subsequent growths will often be more vigorous.

Areas that are being prepared for sowing in lucerne this year should have frequent cultivation to germinate and destroy weeds. In the drier and warmer districts November is a favourable month, but in exposed or cold situations sowing is better delayed until December. If the land has not been limed and carbonate of lime (crushed limestone) is to be used it should be applied at once. Burnt lime is best applied just before the seed is sown. Give at least 10 cwt. of carbonate or 5 cwt. of burnt lime per acre. Seed at the rate of 15 lb. per acre, and sow through every coulter of the drill, or, what is better, drill half the seed one way then cross-drill the remainder. The next best method of sowing is broadcasting after the Cambridge roller. The seed-bed should be well rolled and firm. Inoculated soil is usually necessary, a suitable quantity being about 3 cwt. per acre. Alternatively, the seed may be dressed with Farmogerm. Superphosphate or basic slag are the most suitable manures, but any phosphatic manure will give good results if applied at from 2 cwt. to 3 cwt. per acre. The requirements for obtaining a good stand of lucerne are clean land, fertile soil, a firm seed-bed, and favourable weather to germinate the seed. The Marlborough strain of seed is to be recommended.

PLOUGHING AND FALLOWING OPERATIONS.

Under Canterbury and North Otago conditions any land intended for summer fallow should be skim-ploughed as soon as possible. Rape and turnip land after green feed should be ploughed and worked down. Towards the end of November twitch-infested land should be ploughed to a depth that will just go beneath the twitch layer (probably about 4 in.), and when this furrow has dried out considerably the land should be cross-ploughed to the same depth. In this way large rough