

## BEHAVIOUR OF VARIETIES OF LINSEED

ploughing. It is essential to avoid hollows under the furrows, and such preliminary work is the one way in which this can be achieved. Recently the digger plough has become popular for this work, as the skimmer places the edge of the furrow down at the base of the turned furrow and so achieves the same object in one operation. Also the quick-turn board of the digger plough fractures the furrow and so reduces the amount of subsequent cultivation required by discs or other implements.

The cultivation of linseed calls for only a medium depth of ploughing (4 or 5 in.) and it is most important to get a good crumbly tilth, not a fine floury tilth, which sets badly with heavy rains and hinders the growth of the crop. To obtain a crumbly tilth early preparation is necessary, as late ploughing usually means hurried final preparation and consequent fineness of tilth.

In some southern districts, notably western Southland and South Otago, the crop is more likely to follow turnips, and preparation of such land for the linseed crop starts immediately after the turnips have been fed off.

### Fertilisers

Although many manurial trials have been laid down by the Extension Division to determine the manurial requirements of the linseed crop, no definite information has been secured on manurial recommendations. In districts where the sowing of superphosphate is general with cereal and other crops this fertiliser is sown with linseed, as it is considered that it helps in the initial establishment of the crop. Applications vary from 1 cwt. per acre in the Canterbury district to

2 to 3 cwt. per acre in Otago and Southland.

It is generally found that linseed does not respond to lime sown with the crop, but does better on soils which have been limed well during their period in pasture.

Like other crops, linseed gives better returns on land which has been improved through the growing of good pastures, and it is felt that the residual effect of phosphates and lime applied to those pastures and the general rise

in fertility of the land are responsible for the increased yields now being obtained.

### Varieties

Of the seven harvested spring-sown trials in the 1948-49 season, good results were secured, which enable the following comments on the behaviour of the varieties of linseed to be made.

**Golden Viking** and **Victory** have been outstanding in yield performance and desirable agronomic features. The former matures earlier and has somewhat shorter straw; both are rust resistant, have large bolls, and are attractive in appearance.

**Koto** was the most impressive variety, but has not yielded as well as **Golden Viking** or **Victory** except in the trials in Southland and Wiltlowby (Mid-Canterbury). It matured early and was of moderate height, but it had small seed bolls and this may have been the cause of its relatively lower yield.

**Walsh** has yielded relatively poorly and appears to be of uneven type; it would seem that this variety could with advantage be replaced by **Golden Viking** and **Victory**.

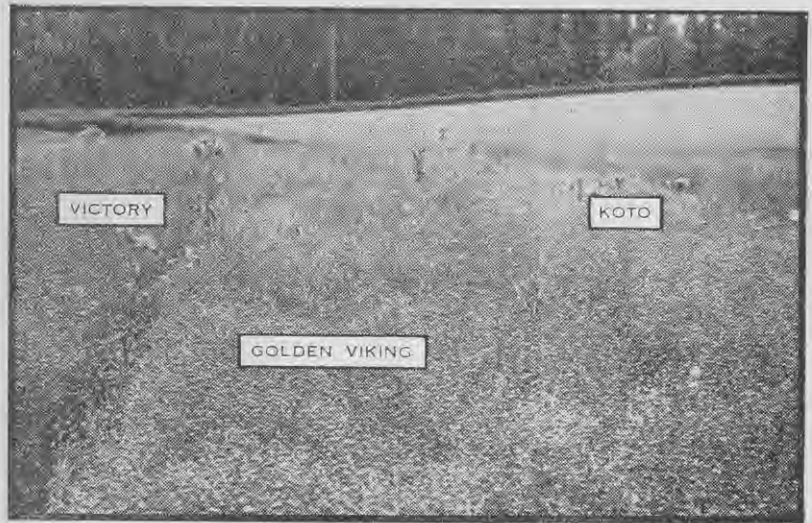
**Punjab** has been low yielding and its extremely short straw and tough seed bolls make it difficult to harvest. It appears to be unsuitable for New Zealand conditions.

In one trial in South Canterbury **Cheyenne** yielded poorly, although it was most attractive in early growth.

**Bison** yielded well in one trial in Southland.

Other varieties such as **Bio**, which showed promise of rust resistance, **N.Z. Commercial Register**, **Royal**, and **Red Wing** have been dropped from the trial because of low yield or other disadvantages.

In practice **Golden Viking** has proved to be a very suitable variety for the Canterbury and North Otago



Linseed varieties in a trial conducted by the Department of Agriculture.



Linseed crop in windrows.