

LINSEED.

In 1927 work was commenced in selecting a tall strain of Moose linseed, and one more easily harvested with reaper and binder. Single-plant selections were made from crops then growing in Canterbury, and these were sown out in the season 1928-29; also during that season further single-plant selections were made, so that we have two series—viz., 1928 and 1929 respectively.

From the plots in 1928-29 several lines were selected, but it was found that thickness of sowing had a marked effect upon height. In 1929-30 we were unfortunate enough to lose nearly all the seed through damage by birds, but enough of both the 1928 and 1929 selections remained for trial this past season. These were sown at Palmerston North, and protected from birds by netting. Some seed of each selection was sown, for purposes of comparison, in carefully spaced rows, the seed 1½ in. apart, and a bulk line of Moose in every fourth row as a check. The balance has been used up in increase blocks.

Some very promising selections have been reserved, and appear to be from 6 in. to 9 in. taller than Moose, much more uniform, and to yield more heavily. Determinations of oil content are being made by the Chemist. Next season should see the final trials, and thereafter the line selected will be increased and sooner or later replace the present type that is grown.

BARLEY.

As a result of work commenced in 1926-27 we have four smut-free selections of each of the standard varieties of malting barleys—Plumage-Archer, Chevalier, and Goldthorpe-Spratt. These were grown last season in ¼ acre plots, and this season they have been on trial to determine whether any differences exist. Selections are also being raised of the “Gisborne” variety of malting-barley.

CLOVER.

We have now 73 acres of Montgomery Red and 39 acres of Kentish Wild White. In most cases the seed has been grown on virgin land to ensure the minimum of volunteer impurities. The Department has reserved the right to purchase from the growers all or part of the seed harvested from these areas. It is proposed that this seed shall be sold to merchants and growers intending to undertake seed-production, and that eventually there will be sufficient available for export under certification.

2. CROP CERTIFICATION.

Operations in connection with crop certification have been continued during the 1930-31 season. The only new crop to come under the scheme is the French-bean seed crop, while the certification of the following crops was continued from the previous season: (1) Perennial rye-grass, (2) potatoes, (3) brown-top, (4) wheat, (5) white clover.

The certification scheme generally is being well received throughout the country, and inquiries already received from abroad would indicate a decided preference for certified over uncertified seeds.

RYE-GRASS.

The following figures give the number of crops and the acreage passed in the field this season as compared with last:—

Class of Seed.	1930-31.		1929-30.	
	Number of Areas.	Acreage.	Number of Areas.	Acreage.
Mother .. .. .	88	1,074	..	..
Permanent pasture (eligible mother) ..	258	3,092	173	2,383
Permanent pasture only .. .. .	27	279	..	..
First harvest .. .. .	89	1,197	2	64
Total passed .. .. .	462	5,642	175	2,447
Areas rejected .. .. .	82	720	45	581

It is estimated that this season from 80,000 to 90,000 bushels of field-dressed rye-grass seed will come under certification.

The germination of the various lines this season is showing a great improvement on that of last season, when lines averaged from 60 to 70 per cent. germination. This season, with two exceptions, all lines ranged from 85 per cent. upwards. The most gratifying result from rye-grass certification has been the success following the use of mother seed in the South Island, particularly in Canterbury. Excellent crops of certified seed have been produced, and there is little doubt that the system of certification will rapidly tend to the elimination of the production of the false perennial rye-grass types of seed with very permanent benefit to New Zealand agriculture.

POTATOES.

The quantity of seed for which tags were issued in the 1929-30 season, together with that for the 1928-29 season, is given below:—

	1929-30.	1928-29.
	Tons.	Tons.
Auckland Short-top .. .. .	176	85
Dakota .. .. .	174	96
Auckland Tall-top .. .. .	50	14
King Edward .. .. .	30	2
Iron Duke .. .. .	23	..
Majestic .. .. .	16	..
Early Regent .. .. .	14	..
Epicure .. .. .	13	..
Up-to-date .. .. .	6	15
Robin Adair .. .. .	4	..
Golden Wonder .. .. .	3	12
Arran Chief .. .. .	1	18
Bresce's Prolific .. .. .	1	6
Total .. .. .	511	248