

CROP-INTRODUCTION

During recent years it was not possible to introduce a very wide range of crop varieties. Some recent introductions of interest, however, have been—

(1) *Barley*.—Malting Types : Pioneer, Campton, and two hybrid lines from the National Institute of Agricultural Botany, Cambridge.

Feed Types : Prefect from the N.I.A.B., Wong from America, and Smooth Awned Cape from Australia.

These are all very promising varieties.

(2) *Oats*.—S. 84, S. 147, and S. 172 from the Plant Breeding Station, Aberystwyth, 10/3 (Resistance $\times$ Grey Winter) from the N.I.A.B., and Royal Scot and Spitfire from Gartons Ltd., Great Britain.

These are all milling types. S. 172 is of particular interest in that it is a short, stiff-strawed variety which should be highly resistant to lodging.

(3) *Ryegcorn*.—Three Giant Winter types from Great Britain, Black Winter and South Australian from Australia, and Horton Fall and Balbo from America.

These are being tested with a view to isolating a type which might be satisfactory for green feed purposes.

(4) *Garden Peas*.—Several varieties were obtained from Great Britain, Australia, and America. None of these appear to be of particular importance, apart from a few of the English varieties which, through not very high yielding, produce exceptionally large pods and may be useful for crossing purposes.

(5) *Lupins*.—Several strains of blue, yellow, and white lupins have been received from Germany through the Imperial Bureau of Plant Genetics. Some of these are sweet and some bitter, and one at least is a non-shattering form.

(6) *Lucerne*.—Sixty-two distinct varieties or strains have been introduced from Australia and America for comparison with Marlborough and the pedigree strain developed at the Division.

(7) *Linseed*.—The three varieties, Bison, Walsh, and Golden Viking, recently introduced from America were compared in a drilled trial with New-Zealand-grown stocks of Rio and N.Z. Commercial.

(8) *Potatoes*.—Mohawk received from America and a line of Up-to-date free from virus X obtained from Australia are under trial.

(9) *Sunflowers*.—To determine whether sunflowers can be propagated successfully under Canterbury conditions, the varieties Southern Cross, Pole Star, Mars, Saturn, and Californian Manchurian were introduced from England and grown in a hand-sown trial. All varieties flowered and set seed satisfactorily, but the plots, though harvested, have not yet been threshed.

PURE-SEED PRODUCTION

The following crop varieties were grown for the production of pure seed either for certification purposes, for distribution to merchants, or for increasing for large-scale trials :—

- (1) Wheat : Cross 7, Fife Tuscan, Solid Straw Tuscan, College Hunters, Hunters II, Dreadnought, Tainui, 7801.
- (2) Oats : Gartons Abundance, Binder, Algerian, S. 17 (Gartons Abundance $\times$ Ruakura).
- (3) Barley : Spratt Archer, Plumage Archer, Chevallier, Wong, Pioneer, Smooth Awned Cape
- (4) Garden Peas : Greenfeast (Lincoln), Onward, William Massey (Kelvedon Wonder), Greencrop (Greenfeast $\times$ Greatercrop), Pioneer.
- (5) Rape : Giant.
- (6) Kales : Giant chou moellier, medium-stemmed chou moellier, thousand-headed kale.