Field trials with short-rotation rye-grass have decreased to 16. This series has been most valuable in demonstrating the potentialities of the strain to farmers in various districts.

Although only 4 trials on depleted land in the South Island are now open, it is hoped to make a new approach to the problem of tussock-land deterioration in the immediate future, and for the first time for many years officers have been appointed who will make a specialized study of tussock-land problems. A block of some 50 acres of depleted country in the Hawea district has been made available to the Department for trials of various types, chiefly the surface sowing of a wide range of species both native and introduced. The Pisa Flat Experimental Area, in Central Otago, is being maintained chiefly as a nursery area where a wide range of introduced species is given preliminary trial. Another area has been established in the Cass district, and it is hoped to have a third near Tekapo in the near future.

(2) *Annual Crops*

(*a*) *Wheat.*—The investigation of the manurial requirements of wheat in relation to soil type and previous history was continued for a third year and the results of comprehensive series of trials are now available for detailed analysis. Wheat variety trials, which make up the majority (28) of the 44 wheat trials, are conducted at the request of the Wheat Research Institute and are the means of field testing the new wheat crosses that institution produces. The trials this year have been generally successful and good use has been made of special experimental header harvesters.

(*b*) *Oats.*—Eight oat variety trials have recently been harvested. The majority of these compared with standard varieties some new crosses bred by the Agronomy Division, Department of Scientific and Industrial Research. Close co-operation is maintained with the Agronomy Division in field trials with crops.

(*c*) *Barley.*—Practically all the 24 trials with barley are comparisons of malting barley varieties. Some new varieties introduced from England and Europe have shown some valuable characteristics for conditions in this country.

(*d*) *Cereal Green Feed.*—These trials compare the green-fodder and dry-matter production of different introduced varieties of oats, barley, and rye-corn. Certain of these varieties have shown special value for different circumstances; some are quick-growing types suitable for late sowing, whereas others are somewhat slower in initial growth but show a better recovery after cutting or grazing.

(*e*) *Brassicas.*—The majority of the 66 trials with brassicas are observational trials with turnip and swede varieties which include selections made in this country and a number of imported lines. Other trials are those with "club-root-resistant" rape, a variety that is to a considerable degree resistant to club-root disease, and 5 trials with chemicals incorporated into the fertilizer in an endeavour to control this disease. To date the most successful of these chemicals has been mercuric chloride. Eight manurial trials with reverted superphosphate are in progress.

(*f*) *Linen Flax.*—The four trials now open include 2 manurial trials, a trial of the value of certain seed dusts, and a rate of seeding trial.

(*g*) *Linseed.*—Trial work with linseed has increased in view of the growing importance of this crop. Eleven of the 12 trials now open are varietal trials, the field testing of a number of new introductions being urgently required, and there is 1 manurial trial. A further expansion of work with linseed is contemplated.