

SEED-TESTING.

For the calendar year 1940, 24,982 seed samples were recorded, and required the making of 40,827 separate analyses and tests, as follows:—

Purity analyses	..	..	..	..	..	15,845
Germination tests	..	..	..	..	..	20,392
Ultra-violet-light examinations	..	..	..	..	..	2,798
Picric-acid tests	..	..	..	..	..	1,792

The total figures for samples and tests represent a decrease on the previous year's totals of 1,168 and 965 respectively. This slight fall is due to an almost complete failure of the rye-grass crop in Canterbury.

To the expressed satisfaction of members of the seed trade prompt services were maintained throughout the year, but not without some difficulty during the first six months.

As was expected, the substantial increase in testing fees as from December, 1939, did not result in an appreciable reduction in the number of samples submitted.

Purity.

Of the 15,845 analyses, 2,051 were made in respect of samples of farmers' dressed rye-grass. This is a new service providing approximately pure seed content and germination percentages on a machine-dressed basis, and is becoming widely adopted for the early trade in new season's rye-grass. A further 1,714 analyses were used to determine conformity to the required standard of analytical purity for seed harvested from areas registered under certification. A total of 113 samples, or 6 per cent., was rejected.

Germination.

All of 20,392 tests were required in the course of routine testing. With an unfavourable harvesting year, many of the tests presented difficulty, and for perennial rye-grass in particular many low-testing samples returned widely varying results, although within the limits of the recognized tolerance.

Ultra-violet-light Tests.

Of the 2,798 examinations of perennial rye-grass seedlings, 1,117 were made on samples of certified seed for the information of the Department, 946 on officially-drawn samples from lines entered for certification in the commercial class, 631 on trade samples as a preliminary to entry for certification, and 104 on farmers' samples and as check tests, &c.

Picric-acid Tests.

Of the 1,792 tests on white clover, 1,420 were made for the purposes of certification in the "mother" seed and "permanent pasture" classes, 285 on trade samples preliminary to entry for certification, and 87 on farmers' samples, check tests, &c.

Canadian Seeds Act.

With the introduction of charges for the additional analysis required under the Act, requests for special certificate endorsement have become considerably reduced. Before the fixing of charges, it was evident that the analyses were being obtained "for information only" for wholesale trading in New Zealand.

Australian Federal Quarantine Act.

With an increasing number of exported lines becoming rejected at Australian ports, practically all seed intended for shipment to Australia is now reported on as to the probability of conformity or otherwise to quarantine requirements.

Seed Certification on Laboratory Test.

Perennial Rye-grass.—The 946 officially-drawn samples representing machine-dressed lines entered for certification in the then commercial class represented 156,359 bushels of machine-dressed seed, and of this, 639 lines, comprising 194,692 bushels, conformed to the required standards and were accepted in the commercial class. Three hundred and seven lines, comprising 51,668 bushels, were rejected. In quantity, 67 per cent. of the seed entered was passed, compared with 78 per cent. for the previous year.

White Clover.—The 1,044 lines entered represented 803,267 lb. of seed, and of this, 709 lines, comprising 548,965 lb. were accepted—156,792 lb. as certified mother seed and 392,173 lb. as certified permanent pasture. Three hundred and thirty-five lines, comprising 254,302 lb., were rejected. In quantity, the percentage of seed passed, 68 per cent., was approximately the same as for the previous year.

Moisture Content.—Approximately 100 samples of grass-seed, representing export lines, were tested for moisture content and reported upon.

Rye-grass - seed Crops : Disease Examination.

For the season 1940-41, 265 sheaves of seed-heads, representing standing crops, were examined for the presence of disease and reported upon as to the potential germinating-capacity of the crop. As little disease was present in most districts this year, fewer samples than usual were submitted. Only five samples showed a rate of infection greater than 20 per cent., and the majority of samples contained no more than a trace of infection. As was expected, in view of the health state of the crops, the quality of the new season's rye-grass seed, from the standpoint of germination, is very high.