

*White Clover*.—A further increase has been recorded in the acreage of white clover entered for certification, with the likelihood of more entries yet to be made. It is anticipated that yields of seed will be lower than usual, while some areas which were entered have been flooded and will not be harvested. Areas sown out with certified mother-seed show definite promise of developing into areas consisting of white clover of a superior type.

*Red Clover*.—The acreage of Montgomery red clover entered this season has shown a considerable decline. There may be further entries yet to be received, but it is not expected that the amount of seed to be harvested will reach that certified in the 1934-35 season.

*Brown-top*.—In the 1934-35 season the amount of brown-top seed harvested under certification was twice as great as that harvested in any one previous season. Very little of the seed now being produced fails to come into certification. This season's harvest is only just commencing, and no indication of its probable extent can yet be given.

*Italian Rye-grass*.—In the second season's operations covering Italian rye-grass, the acreage entered has increased considerably. Practically all the areas entered were sown with certified seed from the 1934-35 harvest, and the standard revealed at field inspection of this year's areas was in the main quite satisfactory. It is interesting to note that all certified Italian rye-grass is of imported origin, no local seed having come up to the standard required for certification purposes.

*Phalaris Tuberosa*.—The certification of *Phalaris tuberosa* is already being undertaken in New South Wales, and three areas were sown out in Canterbury in 1935 with certified mother-seed imported from Australia, with a view to ascertaining the possibilities of an export trade in this seed. These areas were entered for certification and are being harvested this season.

*Potatoes*.—The scheme of seed-potato certification continues to widen its scope. There has been a fairly steady increase in the area entered for certification since the inception of the scheme in 1927, and it is estimated that 15 per cent. of the total South Island acreage has been inspected in the field during the 1935-36 season. In this connection it should further be borne in mind that, while a gradual raising of the general standard is being brought about year by year, there also has been an increase in the percentage of crops attaining to that raised standard.

The division into mother and commercial classes of those crops accepted, and the limitation of entries in the following season (in the case of seed purchased) to areas planted with mother-seed, has shown itself to be warranted. In the 1934-35 season 377 of the crops entered were planted with certified mother-seed, and of these 2.7 per cent. were rejected at field inspection. On the other hand, of 79 crops planted with certified commercial seed, 48.1 per cent. were rejected. These figures indicate that the planting of mother-seed gave a grower reasonable assurance that in the following season his produce would again qualify under certification.

*Wheat*.—The acreage of wheat entered for certification in the 1935-36 season is approximately double that entered in the previous season. This increase has been due in part to the rapid distribution of the new variety "Cross 7." The dissemination of this variety in three seasons emphasizes the great value of the certification scheme in the rapid multiplication of selected strains of seeds, particularly those of annual crops. Taking this variety as an example, the following figures show the acreage under certification in the first three seasons: 1933-34, 7 acres; 1934-35, 89 acres; 1935-36, 1,500 acres, all of which can be traced back to the seven-acre area of 1933-34.

The general standard of crops in respect of varietal purity and freedom from seed-borne diseases is good. The grain quality has been very adversely affected by the weather conditions prevailing since harvesting of the crops. In a number of cases the quality of the produce is well below ordinary milling standards, the grain having sprouted very badly prior to threshing.

*Rape*.—Four areas of rape, all sown out with seed selected and raised at the Plant Research Station, have this year come under certification. Seed from these areas should be of good quality and, when coupled with the fact that the type of rape is specified, should meet a ready demand in competition with imported seed.

*General*.—Seed certification activities have proceeded along smooth and steady lines in the year under review. While the value of certified seeds is now widely recognized throughout the Dominion, overseas seed-markets in the main have not been tapped. The exception is in the case of Australia, where New Zealand certified seeds are receiving considerable publicity. The exploiting of other markets would appear at this juncture to be an economic problem, in that local seeds cannot compete successfully against the existing world prices.

The accompanying table records acreages entered in various crops since the inauguration of seed certification in 1927.

The field staff of the Division have undertaken a large volume of work, often at rush periods, in the execution of their duties relative to seed certification operations.

| Seed.                            | Acreages inspected each Season. |          |          |          |          |          |          |          |           |
|----------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|
|                                  | 1927-28.                        | 1928-29. | 1929-30. | 1930-31. | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36.* |
| Potatoes .. ..                   | 821                             | 909      | 1,200    | 1,334    | 1,146    | 1,154    | 1,322    | 1,882    | 2,400     |
| Wheat .. ..                      | 473                             | 1,184    | 2,277    | 3,289    | 1,063    | 1,873    | 2,937    | 2,545    | 5,400     |
| White clover .. ..               | ..                              | 325      | 664      | 311      | 31       | 100      | 538      | 1,284    | 1,500     |
| Perennial rye-grass .. ..        | ..                              | ..       | 3,028    | 6,539    | 9,709    | 22,917   | 13,236   | 11,351   | 12,500    |
| Brown-top .. ..                  | ..                              | ..       | 22,000   | 24,900   | 18,300   | 14,860   | 17,150   | 24,310   | †         |
| Cocksfoot .. ..                  | ..                              | ..       | ..       | ..       | 4,226    | 5,097    | 5,485    | 7,886    | 8,000     |
| Montgomery red clover .. ..      | ..                              | ..       | ..       | ..       | 9        | 71       | 168      | 392      | 250       |
| Turnips, swedes, and rapes .. .. | ..                              | ..       | ..       | ..       | ..       | ..       | 128      | ..       | 40        |
| Italian rye-grass .. ..          | ..                              | ..       | ..       | ..       | ..       | ..       | ..       | 305      | 500       |
| <i>Phalaris tuberosa</i> .. ..   | ..                              | ..       | ..       | ..       | ..       | ..       | ..       | ..       | 20        |

\* Approximate. † Not available.