Major Researches.

(1) Ragwort Investigation .- A summary of results to date, giving the life-history of the plant and the effect of the different methods of hand-control tried out, has been published in the Journal of Agriculture. Important studies have been made on the root-system of the plant, its life period, and powers of vegetative reproduction. The experiments are being continued, and include further work on the methods of distribution of seed—wind, animals, and water. The difficulty of establishment from seed on a closed pasture in good heart has been demonstrated. A fuller paper is being prepared for the Annals of Applied Biology.

(2) Survey of Montane Tussock Grasslands of South Island.—This has special reference to the present state of the pastures, the causes of deterioration, and methods of improvement. Work on the botanical aspects is being done in co-operation with the work of the Department of Agriculture. From material accumulated in the course of a two month field survey a preliminary classification of the grasslands will be made as a basis for more intensive work on selected areas. Special attention is being paid to the more useful of the native and introduced grasses,

and seed for experimental sowings is being gathered.

(3) General Weed Survey.—Progress has been made in the distributional ecology of the major weeds. An illustrated book on the whole of the naturalized species will shortly be ready for the printer. A paper dealing with the origin and distributional history of the alien flora has been published in the Proceedings of the Linnean Society.

(4) Taxonomy of the Indigenous Grasses.—Much further material was gathered during the survey of the tussock grassland and is being worked up. A taxonomic revision of all genera and species is in progress. This is an essential to sound ecological work in the future.

MINOR PROJECTS.

Work on the taxonomy and ecology of indigenous plants has been continued. Mr. Zotov has published a paper on the correlation of climate and vegetation and has in the press a detailed study of the vegetation of the Tararua Mountains. Mr. Poole has published a useful account of the Pukekura State Forest, Westland, from the sylvicultural point of view. Papers have been published on an artificial cross between *Phormium colensoi* and *P. tenax*, and on the whole subject of Wild Hybridism, the latter in the *Botanical Review*. Work has been commenced on the use of edible shrubs in ungrassable land in the North Island. A taxonomic study of *Pyrethrum* for the Plant Diseases Division is under way, as also is an account of the legumes occurring in New Zealand. Many other minor projects are receiving attention as opportunity occurs.

During the year the section was transferred to Wellington. Better facilities and contacts are now available, but in view of the work the section wishes to develop it is still understaffed.

ANIMAL RESEARCH BUREAU.

The desirability of co-ordinating animal research in New Zealand and enlarging its scope to a degree commensurate with the needs of the animal industry has been recognized by the Council of Scientific and Industrial Research for some considerable time. A conference, under the authority of the Hon. the Minister in Charge of Scientific and Industrial Research and the Hon. the Minister of Agriculture, was held in May, 1936, and this was attended by representatives of the Council of Scientific and Industrial Research, interested Government Departments, the Agricultural Colleges, and the Cawthron Institute. The broad field of animal research and its organization in New Zealand was discussed by the conference, and it was recommended that a Bureau of Animal Industry be set up under the Department of Scientific and Industrial Research and directed by a Committee representative of the Departments of Agriculture, Health, Scientific and Industrial Research, Massey and Canterbury Agricultural Colleges, and Cawthron Institute.

The Hon, the Minister in Charge of Scientific and Industrial Research approved these recommendations, and two preliminary meetings of the Committee were held to consider the inauguration of the Bureau and to survey the existing facilities for, and the scope of, animal research in New Zealand.

In August, 1937, with the approval of the Hon. the Minister in Charge of Scientific and Industrial Research, an Animal Research Bureau was set up under the following advisory committee:-

Messrs. A. H. Cockayne and W. C. Barry Department of Agriculture. Professor E. R. Hudson . . . Canterbury Agricultural College. Professor G. S. Peren Massey Agricultural College. Sir Theodore Rigg Cawthron Institute. . .

Professor W. Riddet Council of Scientific and Industrial Research. Dr. M. H. Watt Department of Health.

Dr. E. Marsden .. Department of Scientific and Industrial Research.

Dr. C. S. M. Hopkirk and Mr. M. McG. Cooper (Secretaries) and one representative each from the New Zealand Meat-producers Board and the New Zealand Dairy Board. Messrs. A. Linton and J. D. Ormond, jun., were elected representatives of the Dairy and Meat Boards respectively.

The above Committee has met on two occasions, and much useful work has already been undertaken.