

developed insecticides; on the use of sprays combining fungicides and insecticides, and on the effect of spray programs upon the whole biotic structure of the orchard. Insect control by parasites and diseases and by orchard management is receiving increased attention.

Research on stored products insects embraces such pests as the rust-red grain beetle, the Indian meal moth, and mites; warehouse infestations by spider beetles; and pests of special products, such as beetles attacking powdered milk and eggs. Practical controls have been developed utilizing fumigants, abrasives, and mechanical methods; and prevention of infestation has been secured through proper storage construction and plant management.

Special consideration is given at the Dominion Parasite Laboratory, Belleville, Ont., to the importation and production of parasites for distribution in forests, fields, gardens, orchards, and greenhouses. At present, parasites are employed in Canada against about thirty important insect pests.

Activities designed to prevent the introduction into Canada of foreign pests are centred in the Plant Protection Division of Science Service. Fumigation with various lethal materials under varying conditions is being investigated as a means of destroying insect life in imported plants and plant materials. Effects of fumigants on suitability of products for human consumption or for seed are also under study.

**Experimental Farms Service.**—For over sixty years, since 1886, the Experimental Farms Service of the Dominion Department of Agriculture has been engaged in experimental and investigational work directed to the progressive improvement of practical agriculture in Canada. The facilities of this Service include (at the beginning of 1947) 36 experimental farms, stations and large substations; 211 smaller substations and illustration stations, and 8 branch laboratories, distributed throughout the agricultural regions of Canada. The headquarters of this system are at the Central Experimental Farm, Ottawa, where are located the administrative offices of the Director, and the offices and laboratories of the technical Divisions through which the work of all Experimental Farm units is supervised and coordinated. The field of agricultural enquiry covered by each of the ten technical Divisions is indicated by their titles, as follows: Animal Husbandry, Bees, Cereal Crops, Economic Plant Fibre (flax, etc.), Field Husbandry (soil management and engineering), Forage Crops, Horticulture, Illustration Stations, Poultry and Tobacco. Work on each of the Branch Farms is supervised by a resident Superintendent, who is responsible to the Director and who directs the various phases of experimental work at his unit in consultation with the relevant Division at Ottawa.

The fundamental function of the Experimental Farms Service is to enable Canadian farmers to make direct application of the results of scientific research. By its constitution, this Service is a repository for information on scientific farming, continually expanding, and kept alive by constant application under actual farming conditions. This applies to the multitude of details of land management, crop growing, live-stock production, and the use of machinery and equipment which together constitute the art of agriculture. During the present post-war period, the Experimental Farms are concerned with the maintenance of their regular services to agriculture, but with special attention to the greater conservation and better utilization of the agricultural resources of Canada.

Of primary importance, though of somewhat belated recognition, is the problem of soil conservation. Considered broadly, soil conservation involves the maintenance of fertility as well as the control of soil erosion. Over a long period of years, Experi-