

Plant studies are carried out at the Plant Research and the Genetics and Plant Breeding Research Institutes in taxonomy, physiology, biochemistry, pathology, agrometeorology and weeds, and fruit and vegetable processing and storage. Cytological and genetic studies on cereal, forage, tobacco and horticultural plants are made by the Genetics and Plant Breeding Research Institute with special reference to problems encountered in the breeding programs and the assessment of quality characteristics.

The staff of the Soils Research Institute is engaged in studying genesis and classification, fertility, mineralogy and the organic, physicochemical and physical aspects of soils. This Institute gives leadership to the federal-provincial soil survey program through classification studies and by developing and standardizing analytical methods. It also provides a national soil mapping service.

A major section of the Entomological Research Institute deals with taxonomy, other assignments being in the fields of genetics, physiology, nematology and apiculture. The Institute assembles and maintains the national collection of insects.

The Microbiological Research Institute is mainly concerned with metabolism, nutrition and genetics of bacteria of agricultural significance.

The Dairy Technology Research Institute investigates problems in sanitary milk production and the processing of dairy products and undertakes projects to improve existing dairy products and to develop new ones.

The Biological Control Research Institute at Belleville, Ont., is concerned with efforts to control destructive insect pests and noxious weeds with parasitic and predaceous insects, and with insect disease organisms. It is also the principal importing centre for beneficial insects and for some disease organisms from foreign countries.

The Insect Pathology Research Institute at Sault Ste. Marie, Ont., is the major importing centre for disease organisms. Insect diseases, including viruses, fungi, bacteria and protozoa are studied.

The Pesticide Research Institute, London, Ont., established in 1951, examines chemicals used or intended to be used for insect, disease or weed control and investigates the reason for and the nature of the biological activity of the chemical.

The Regional Institutes, Stations and Services cope with primary problems in various regions in all provinces. General agriculture in the Northwest Territories is being studied. Nine major laboratories are working on forest and shade trees, and on forest products diseases and pests in conjunction with provincial forest services and the forest industries.

Other units have undertaken projects assisting in the exploitation of peat bogs, reclamation of marsh land for pasture, propagation of shelter-belt trees and prevention of soil erosion, dryland agriculture, the growing of special crops such as tobacco, and livestock breeding.

The Research Laboratory at Winnipeg, Man., has a world-wide reputation for its contribution in the field of cereal rusts and is the national centre for investigations concerning insects in stored products.

Production and Marketing Branch.—The Production and Marketing Branch represents a consolidation of the former Production Service and Marketing Service and also includes the Agricultural Stabilization Board and the Agricultural Products Board. The regulatory functions of the Department of Agriculture are thus centred in one branch.

The Health of Animals Division of the Branch administers the Animal Contagious Diseases and the Meat Inspection Acts, and also operates Animal Pathology laboratories. Besides its responsibility in carrying out various disease prevention measures, the division operates programs for the eradication of bovine tuberculosis and brucellosis and gives health certificates for livestock export trade. The Animal Pathology laboratories, in addition to their research function, manufacture diagnostic reagents and biological products and provide analytical and diagnostic services for domestic and wildlife diseases. District laboratories across the country give routine diagnosis and research services.