

Agricultural research, particularly in plant science, must be decentralized to a great extent as most problems must be studied where they occur. Apart from the value to farmers of having a local source of information the experimental farms and science laboratories are widely distributed because the work can be done in no other way. In addition to the headquarters of the Experimental Farms Service at Ottawa work is carried on at 32 branch experimental farms, 20 substations and two forest nursery stations. Experimental work of local application is done at 233 illustration stations. The work of the Science Service, centralized at Ottawa, is augmented by that of about 100 laboratories located throughout the country.

In the field of economic research, studies in farm management, land utilization, marketing and farm family living are undertaken in all parts of the country. The scope of the scientific and experimental work of the Department is revealed when it is realized that there is no plant or animal in Canada that is not susceptible to damage caused by bacteria, fungi, viruses, insects or parasites.

Subsection 3.—Protection and Grading

Unlike manufactured articles, even close scrutiny of most agricultural products is of little help in determining their purity as food, or their value to the farmer for further production. Products used as food must be pure and healthful and must satisfy standards of quality established for them. If agriculture is to be conducted on a sound basis, the supplies farmers buy—seeds, feeds, fertilizers and pesticides—also must carry a guarantee that they will be as represented. Much of the research and experimental work would be of no avail if legislation were not provided to ensure satisfactory end-products. In addition, Canada's livestock, crops and trees must be protected from diseases of foreign or domestic origin.

These protective and grading services are a most important part of the work of two sections of the Department of Agriculture: the Production Service and the Marketing Service. Generally the protective features and the grading to standards or approval of analyses of farm supplies come under the Production Service. The grading of most food products is the responsibility of the Marketing Service. Legislative authority to impose protective and grading services is derived from about 20 Acts or their accompanying Regulations.

Health of Animals.—The protection of the health of Canada's livestock is a most important service. To guard against the introduction of contagious diseases from foreign lands stringent regulations are enforced by the Health of Animals Division covering the importation of livestock, livestock products and even packing material and litter. Provision is also made for the control or eradication of animal diseases developing within Canada. The Division is responsible for the inspection of animals slaughtered for food and post-mortem examination is made of all carcasses in the course of slaughter and dressing before the meat is approved for human consumption. Sanitary conditions in packing plants and slaughter houses come under review and all canned meats must meet high standards of processing to qualify as food. The Division operates animal pathology laboratories which carry out routine laboratory examinations and conduct research investigations in animal disease problems.

Protection of Supplies.—The Plant Products Division, in co-operation with the provinces and other agencies, is concerned primarily with the administration of Acts respecting feeding stuffs, fertilizers, pesticides, hay and straw, fibre flax and binder twine, and the production of seed. The inspection services of the Division have three main functions: (1) to enforce the Acts that regulate the sale of the agricultural supplies; (2) to provide as required such services as seed crop inspection and the sealing of seed produced from inspected and other approved crops; (3) to co-operate with provincial governments and other agencies in promoting and improving supplies of seeds, feeds, fertilizers and pesticides.