

In addition to its Technical Information Service, the National Research Council is of service to industry in two other main ways. First, it encourages scientists from industry to visit the laboratories of the Council and in turn sends its men to visit industrial laboratories. A free and constant flow of personnel and information is thus maintained between the Council and most industries that have laboratories. The aim is to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as sources of scientific information and assistance.

Secondly, the Council undertakes, under contract, research work for any firm which has a problem that cannot be solved by private consulting and testing laboratories, and also obtains assistance, in return, from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in different fields—refractories, oils, metals, chemicals and transport, to mention only a few examples.

Promotion of research training of scientific workers has been carried on by the National Research Council since its inception along three lines: (1) scholarships awarded annually to carefully selected university students who show an aptitude for research; (2) assisted research grants to heads of science departments in the universities for the employment of junior assistants and the purchase of special equipment for research purposes; (3) award of post-graduate and post-doctorate fellowships in the natural sciences and in medicine.

Principal Activities, 1948-49.—With a staff of more than 2,600 persons, many of whom have won wide recognition in their respective fields, the Council now occupies a very creditable place in the scientific world. In 1948, for the first time, the Council awarded 19 post-doctorate fellowships each tenable for one year in the Division of Chemistry. Holders of these fellowships include men trained in English and Scottish universities and institutions in Holland and Denmark. Heretofore, the trend in post-graduate research has always been from Canada to other countries, mostly the United States and Europe. It is a mark of progress that the flow of scientists is now moving in both directions.

At the Atomic Energy Project, the experimental NRX pile has been producing successfully the highest neutron flux density of any research pile in existence, and has afforded opportunities for carrying out investigations of a fundamental nature as well as permitting irradiation of nearly 600 different samples for the production of radioactive isotopes. The Isotopes Branch has distributed 34 different isotopes to 21 institutions for experimental work in pure and applied science. To stimulate the use of the products of the Chalk River pile, a conference on Industrial Uses of Radioactive Isotopes was held at Ottawa in December, 1948, which was attended by more than 100 representatives from Canadian industries.

In the Division of Applied Biology, many problems of industrial interest are being investigated, particularly the preservation of foodstuffs and the industrial utilization of wastes and surpluses. During 1948, more work of a fundamental nature was initiated to establish a reasonable balance between the various applied and fundamental research activities.

Construction of the Prairie Regional Laboratory at Saskatoon, Sask., was completed in 1948; five laboratories were equipped and partially staffed. Two crop-utilization projects, oil seeds and agricultural residues, are in progress and work is soon to be undertaken on proteins and carbohydrates. In the field of industrial