

utilization of several of the old mill buildings as aeronautical research laboratories and as temporary laboratories for chemistry and physics, for which purposes they were admirably suited. The Government also decided to erect on a vacant 10-acre area on the same property the National Research Laboratories to be used permanently by the Council for scientific and industrial research.

The National Research Laboratories building, now practically complete, is to be opened in July, 1932. A brief description of this building and of the other laboratories on the Edwards property was given on pages 990-991 of the Canada Year Book for 1931.

Laboratory Investigations.—Pending the completion of the new building of the National Research Laboratories the existing laboratories are being utilized to the fullest possible extent. Further, through a co-operative arrangement with the University of Alberta, the investigations of the Division of Biology and Agriculture are being carried out in the university laboratories and greenhouses at Edmonton.

The following researches are listed in the Council's annual report for 1930-31 as being in progress during that year:—

Division of Biology and Agriculture.—

- Composition of wheat in relation to state of maturity and exposure to frost.
- Gas production and retention in wheat flour doughs.
- Phenolic compounds of the wheat plant in relation to rust resistance.
- Preparation and denaturation of the gluten proteins.
- Biological assays of crop residues.
- Chemicals as herbicides.
- Weed survey of the Prairie Provinces.
- Statistical analysis of data collected by the Associate Committee on Accurate Plot Work.

Division of Chemistry.—

- The utilization of Canadian asbestos.
- The manufacture and application of plastic magnesia.
- The chemical utilization of natural gas.
- The chemical nature of rubber, and methods of vulcanization.
- The manufacture of synthetic resins.
- Research in problems of laundering.
- Leather research, especially in problems of tanning.
- Methods of testing raw wool.
- The isolation and utilization of the alkaloids of plants.
- The clarification of honey and the development of new honey products.
- The development of new products from maple sugar.
- The utilization of straw.
- The utilization of weed seeds.
- The utilization of loganberry pulp.
- The utilization of waste apples.

Division of Physics.—

- The anti-knock rating of air-craft fuels.
- The design of corners in fluid channels.
- The elimination of static in the Fairchild aerial camera in order to improve aerial photography.
- The construction of artificial lighting units suitable for grading grain.
- The heat conductivity of insulating materials used in building construction.