

Questions

2. To assist Canadian and French scientists in travelling abroad and to promote international scientific activity.

In so far as the Department of the Secretary of State is concerned: The Department is involved in two programs which are the result of agreements between Canada and France. Amounts authorized for the fiscal year 1970-1971: International Travel and Exchange Program: To be expended under Standard Object—10 grants, \$150,000. Copérant Militaire Program—two contract employees under program: To be expended under Standard Object—4 professional and Special Services, \$8,095; To be expended under Standard Object—2 Transportation and Communications, \$734.

RESEARCH INTO INDUSTRIAL USES OF GRAIN

Question No. 2,045—**Mr. Rowland:**

Is the government actively engaged in research of the industrial uses of grain, especially wheat and, if so (a) what is the nature of the research (b) does it include studies into the feasibility of adding grain alcohol to motive fuels as an anti-pollution measure?

Mr. J. A. Jerome (Parliamentary Secretary to President of the Privy Council): In so far as the Department of Agriculture is concerned, the answer is: (a) The Department conducts research on the quality of wheat for baking and pasta products and on barley for its use in the brewing and malting industries. (b) No.

In so far as the Canadian Wheat Board is concerned, the answer is: The economic feasibility of manufacturing industrial products from wheat and other grains have been considered by several study groups. The manufacturer of industrial alcohol from grains and the subsequent use of such alcohol in gasoline has been studied by many including the Science Secretariat. To date, studies have shown that alcohol production from wheat is more costly than other methods. However, considering Canada's tremendous resource for the production of plants suitable for the manufacture of alcohol, a different approach is now being taken. A study group composed of specialists from three government departments and agencies is being assembled to determine the plant material, process, fuel and engine characteristics required to make alcohol an economically viable fuel for combustion engines.

[Mr. Jerome.]

USE OF COMPUTER—DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE

Question No. 2,051—**Mr. Robinson:**

1. Does the Department of Industry, Trade and Commerce have the use of a computer in its operations and, if so, to what extent is it utilized?
2. Is the computer programmed 24 hours per day and, if not, for what reason?
3. What is the number of hours planned for utilization of the computer?
4. What has been the annual cost of computer services for each year 1960 to 1970 inclusive?
5. How many programs are in preparation for the computer at the present time and how will each affect the efficiency of the Department?

Hon. Otto E. Lang (Acting Minister of Industry, Trade and Commerce): 1. The Department of Industry, Trade and Commerce presently utilizes the following computers: (a) IBM 1440—utilized full-time. (b) Time Sharing Terminal—utilized an average of 30 hours per month. (c) Central Service Bureau and other Ottawa based service bureaus are utilized for approximately 12 hours per month.

2. The IBM 1440 computer production is scheduled for 24 hours per day, five days a week; in addition, 32 hours per weekend was scheduled during a peak period this year (March, April and May).

3. The Department is presently engaged in a computer feasibility study to determine the overall computer requirements; a firm answer cannot be given at this time.

4. Year	Amount
1960/61	\$ —
1961/62	—
1962/63	—
1963/64	—
1964/65	—
1965/66	35,612
1966/67	78,885
1967/68	100,939
1968/69	135,171
1969/70	124,713
1970/71	150,000 (est.)

5. Some 63 programs are presently in preparation for computer processing. These programs will reduce clerical effort, increase efficiency, provide information not previously available and provide for greater depth analysis.