

Polio Campaign
Technical Service
Alberta Production



Budget Address
Soil Analysis Lab
Tech Science Wing

Within Our Borders

AN ALBERTA GOVERNMENT PUBLICATION

MARCH, 1956

Level of Alberta Economy Shows General Increase

All phases of Alberta's economy, with the exception of agriculture, showed a steady increase in production and value during 1955. In its annual review of business conditions, the Alberta Bureau of Statistics stated that the value of sales of farm, mineral, forestry and fishery products, wild fur and manufacturing during the year was \$1,341,000,000 or an increase of more than \$84 million over 1954.

Adversely affected by marketing conditions and decreased prices for hogs, the value of major farm products in 1955 was \$316,286,000 or about an \$8 million decrease. The total includes \$139,335,000 from grains, \$137,984,000 from live stock, \$30,000,000 (est.) from dairy products, and \$8,967,000 from poultry products.

Mineral production showed an increase of \$47 million in 1955, due primarily to a greater production of crude oil and natural gas. Oil output was 113,035,046 barrels valued at \$274,245,952, for an increase of more than \$46 million. Net natural gas production was 133,049,782 M.c.f. (thousand cubic feet) valued at \$9,978,734, or an increase of \$1.9 million.

Values of other minerals produced during 1955 were: coal \$23,486,399; cement \$7,302,405; sand and gravel \$6,448,712; clay products \$2,617,203; salt \$957,370; lime \$547,320; stone \$260,000; gold \$6,697; and silver \$18.

Increased Production

The development of the Pembina field contributed largely to the increased production of crude oil. Where only 50 wells were capable of being operated in October, 1954, there were 682 capable at the same time in 1955. Pembina has now the greatest production potential of any field in the province.

Lumber production rose to 430 million ft. b.m. (board feet) in 1955, or an increase of more than 64 million ft. b.m. Value of milled lumber and other wood products rose \$3 million to \$21,300,000.

Wild fur production increased 39 percent in quantity and 79 percent in value. The \$2,136,851 realized from this source was bolstered by the \$2,504,556 received from the sale of ranch-raised fur.

The value of manufactured products increased from \$570 million in 1954 to \$629 million last year. The petrochemical plants, now in full production, accounted for the greatest single increase, while almost all other industries showed gains.

"Unlike 1954, when there was a general mild decline of activity during the first eight or nine months of the year," stated the report, "business conditions throughout 1955 were stable and well above the level of the previous year."



Clerk of the Legislative Assembly R. Crevolin, seated, familiarizes the page boys and new Sergeant-at-Arms with their duties at the opening of the second session of the 13th Legislature. Third from right is Sergeant-at-Arms J. Reid while Legislative Assembly page boys left to right are Jesse Jones, Lyell Shields, Ken Sorenson, Paul Strohschein, Pat Kehoe and Dan Thachuk.

Soil and Feed Laboratory Provides New Farm Service

The new agricultural soil and feed testing laboratory at the University of Alberta is now providing the province's farmers with a feed analysis service. Also included in the laboratory's work is the testing of soils, which was formerly done by the Department of Soil Sciences.

Located in the Agriculture Building at the university, the laboratory is designed to handle soil samples from both farmers and greenhouse operators as well as the testing of either grain or forage crops other than those handled commercially.

Under the direction of chief analyst Dr. A. Zitnak, samples are mainly examined for fertility. For example the tests may reveal that excess alkalinity or lack of minerals in a soluble form may be the cause of loss of production.

Concerned only with the chemical evaluation, the laboratory sends the results of these tests to their related departments at the university for appraisal. Comments on the analysis are made and recommendations are given on how to increase the fertility of soils and nutritional value of feeds when necessary.

Forms available from either the university or district agriculturists outline the procedure in gathering samples while containers for shipping are provided. A charge of 50 cents is made for analyzing soil samples and one dollar for seed samples.

Fight Continues

Salk Vaccine Successful Against Poliomyelitis

*Up To 90 Percent Immunization For School Children
Obtained In Province-Wide Campaign Held Last Year*

Salk vaccine, first introduced in Alberta on an experimental basis in 1954, is now recognized as the most effective weapon in the fight against poliomyelitis. New methods of treatment for those afflicted with the dread disease are also reducing the toll of death and suffering. Completion this year of a \$3,500,000 six-storey polio wing at the University Hospital will provide Alberta with one of the finest institutions in North America for the care of polio patients.

A total of 1,458 persons were afflicted with polio in the epidemic year of 1953. Since then the incidence has declined rapidly from 539 in 1954 to 256 reported cases last year. The most significant decline in 1955 occurred in the six to seven-year-old age group which was the target of last year's vaccination program. In 1954 the number of children in the six-year-old bracket showing symptoms of polio totalled 24 but in 1955 only 17 cases were reported. Even greater success was realized in the seven-year-old group which declined from 26 cases in 1954 to five last year.

During the epidemic years of 1952-53, gamma globulin was the most effective means of preventing polio, but its protective effect was of short duration. The historic discovery by Dr. Jonas Salk, in the summer of 1953, of a vaccine that promised a high rate of immunization, led to the Alberta Department of Public Health accepting an offer of vaccine from the National Foundation for Infantile Paralysis, New York. In 1954 a small scale trial of the new vaccine was conducted in schools throughout the province, the results of which have had a far-reaching effect in the reduction of polio incidence.

Enough vaccine to immunize more than 9,000 children was accepted soon after Dr. Salk's discovery had been made known. Although the new vaccine was still in the experimental stage, a program was planned for Alberta to participate in its trial use. A total of 28 local health authorities voluntarily participated in the tests which were made in 54 separate areas. From these trials it was proven that up to 90 percent immunization could be attained for certain types of poliomyelitis.

Case histories of each person vaccinated were kept and the information was sent to polio laboratories at the University of Michigan where it could be interpreted along with similar reports from the United States, two other provinces in Canada, and Finland.

Highly Effective

The survey revealed that the new vaccine was at least 60 percent effective in most cases and ranged up to 90 percent for other types of polio. Anticipating a widespread demand for vaccine if the report was favorable, the Alberta Department of Public Health placed orders in Toronto for 130,000 cubic centimeters before results were announced. Had the University of Michigan report shown that the vaccine was ineffective, the foresight in ordering vaccine supplies for 1955 could have represented a costly gamble. However when the saving of many Alberta children from death and disfigurement was at stake, the risk was worth taking. Alberta's supply of vaccine was assured for the year, but many other areas which waited until the release of the report were unable to obtain any quantity of Salk vaccine.

During 1955 the number of local health authorities participating in the Alberta campaign increased to more than 46 and already this year, over 100 health areas have asked for shipments of Salk vaccine. The use of the 400,000 c.c. order of vaccine for the 1956 fight against polio will bring to 211,000 the number of people who will have received immunization. Among these will be practically all children in the province between the ages of four and ten who wish to receive it.

The administration program for Alberta will be similar to that followed in 1955 but will cover a larger group of children. The vaccine is produced by the Connaught Laboratories which is part of the University of Toronto. It is checked for safety by the University and again checked by the Federal Laboratories at Ottawa. The vaccine is purchased by the province and the cost of the program is shared with the federal government. It is then distributed to the health units or local health departments to be given to the children without charge.

A priority system has been established to include a third dose for children who received Salk vaccine in 1955 and a one c.c. reinforcing dose for children who were treated in the 1954 experiment. Two doses of one c.c. will be administered to the following: new grade one pupils who entered school in September, 1955; those in grades two and three who have not yet been inoculated; children who will be entering grade one in September 1956; pregnant mothers who are expecting between June 1 and October 31, 1956; and medical doctors and active duty hospital staff up to the age of 40 who are exposed to polio patients. In addition children who will be entering grade one in September, 1957, and children presently in grade four will also get two doses of 1 c.c.

During an epidemic of polio, only a relatively small number of those showing symptoms of the disease require clinical treatment. An even smaller number who develop forms of paralysis are often confined to hospital for prolonged periods in which the medical, surgical and hospitalization charges would be much more than the average family could afford. Under provisions of the Provincial Hospitalization Plan, polio patients receive all necessary hospital and nursing care at a cost of \$2 a day during the 14-day isolation period. Hospitalization subsequent to the isolation period is given free of charge to those requiring it. A patient would normally pay from \$14.25 per day for ordinary hospitalization in large cities to \$40 a day for total respiratory ward care.

New Wing

The Junior Red Cross and General Hospitals in Calgary and the University Hospital, Edmonton, are the main centres for treatment of those afflicted with polio. The new wing presently being constructed by the Alberta Government at the University Hospital will give Alberta one of the most modern polio treatment centres on the continent.

Equivalent in size to a 250-bed hospital, the new wing will have six floors on which all phases of isolation, treatment, and rehabilitation can be performed. A large staff of nurses, physiotherapists and doctors, will have at their disposal the most modern equipment that medical science can provide. Part of this equipment will consist of 50 iron lungs for respirator cases.

Therapeutic pools for muscle retraining and education under water, and Hubbard tanks for whirlpool treatment, along with special gymnastic equipment and an occupational therapy section for teaching such crafts as leather work, weaving and ceramics, will all be part of the treatment designed to rehabilitate those affected by the disease. A large sun deck on the roof of the building and special solarium on each floor, combined with pleasant decorative surroundings, are all designed to provide the utmost corrective and rehabilitative factors possible. ●

WITHIN OUR BORDERS

"Within Our Borders" is a publication designed to acquaint the people of the Province of Alberta with the administration and services of their Provincial Government.

There are no restrictions on the republishing of any material, but a credit line would be appreciated.

Notice of change of address should be accompanied by the mailing address label on the front of this issue. No charge is made for "Within Our Borders," and new readers are invited to forward their names and addresses to: "Within Our Borders," Legislative Buildings, Edmonton.



The new science wing of the Provincial School of Technology and Art, Calgary, was officially opened in brief ceremonies when the ribbon was cut by J. E. Oberholtzer, centre, Deputy Minister of Industries and Labor. At left is Mrs. R. A. Denny, head of the Food Service Training Department, while right is Nathan Safran, head of the Science Department.

New \$200,000 Science Wing Opened At Calgary Tech

A new \$200,000 science wing at the Provincial School of Technology and Art has been officially opened in Calgary by J. E. Oberholtzer, Deputy Minister of Industries and Labor.

The new wing will enable the school to place more emphasis on industrial training, thus permitting many Albertans to obtain the necessary instruction within the province. The main subject will be a two-year course in industrial laboratory technology, suited to meet the needs of Alberta industry.

The construction of the wing and the offering of the two-year course are the direct results of the development of Alberta's oil and petrochemical industries. Through the services of the new wing, the school hopes to provide trained technicians for laboratory and research work in the larger refineries and industries.

The wing contains two chemistry laboratories, two physics labs, two classrooms, balance rooms, dark room, instrumentation lab, store rooms, materials testing lab, cafeteria and a room for the preparation of equipment.



The science of welding is being added to the long list of skills being acquired by the modern farmer. Above, Bob Ober of the Coaldale district, right, learns welding at a three-week course at the Provincial School of Technology and Art, Calgary. At left is instructor Bob Shearer. The course, held regularly throughout the winter, enables farmers to learn proper welding techniques so that quick repairs can be made in the field with portable units.

Research Council Service Assists Small Industries

Secondary or processing industries in the province which are not in a position to maintain research staffs are receiving much valuable assistance through the Technical Information Service at the Research Council of Alberta.

Organized on a provincial basis in January, 1953, the objective of the information service is to provide technical advice to industry. Three research council engineers make periodic calls on industrial firms throughout the province to learn of their technical problems and to assist in their solution. If answers cannot be given immediately, the problem is turned over to the research technicians.

Close co-operation maintained between provincial and national research councils permits free exchange of information between these organizations. Some industrial inquiries are treated by the Research Council of Alberta staff; others are submitted to the national headquarters in Ottawa. Careful filing of technical and scientific publications provides another source of information that is also passed on free of charge. These services are made available either by a personal call of one of the staff engineers or through correspondence.

The following are representative of the type of problems dealt with by T.I.S.:

- A chemical company in Calgary desired all possible data on the feasibility of establishing an ethylene glycol plant in Alberta. They were given information on the processes employed, status of the industry in Canada, capital costs and some opinions on the chances of success.
- A bakery in Lethbridge asked for latest information on cleaning agents suitable for that industry. The reply included a description of the different types of cleaners, photostat copies of two related articles from recent journals and a list of four manufacturers specializing in products for keeping bakeries clean and sanitary.
- A holder of timber lands west of Edmonton inquired about ideas for utilizing wood chips. A discussion on manufacturing a wood chip-resin board led to a serious investigation into its possibilities. Further information on types and sources of resins and machinery was provided. The party has now completed financing for establishment of the enterprise.
- A pottery firm in Medicine Hat had difficulties with undue cracking of cups. It was suggested that this might be caused by tensile stresses set up during the drying and firing and that a glaze in high compression would tend to neutralize this tensile strength.
- An oil well cementing firm in Edmonton asked for information on possible sources of extenders for cement in sealing of oil wells. Contact was made with a large consumer of powdered coal as a fuel and which had quantities of fly ash as residue. Tests on this material showed it to be most desirable and now the cementing firm purchases the entire output of the plant's fly ash.
- A manufacturer in Grande Prairie requested information on solder and flux for soldering aluminum and where the materials might be procured. A list of suppliers was submitted along with a description of the soldering procedure.
- A chemical company in Calgary asked for assistance to enable it to reduce its sewer effluent to the required minimum. Samples were taken and some tests were performed by the council's chemists. Subsequent developments have greatly reduced the problem.
- A manufacturer of asphalt products in Lloydminster wished to learn how to make asphalt emulsions. The reply enclosed photostat copies of three articles dealing with the subject and a list of three organizations of the industry in the United States that could offer additional assistance.

Industrial firms requiring technical information may telephone 36421 Edmonton, 28754 Calgary, or write Technical Information Service, Research Council of Alberta, University of Alberta, Edmonton.

Increased Expenditures Announced In Budget

The following are highlights of the Budget Address presented to the Alberta Legislature on February 24, by Hon E. W. Hinman, Provincial Treasurer:

The year just past has recorded a continuation of the buoyant economy of our Province beyond the most optimistic hopes of most of us. Our natural resources have contributed lavishly to our economic well being. Industrial expansion has continued at a pace which speaks eloquently of the confidence of enterprising businessmen in the future of our province. Employment has been high; labour management relations have remained exceptionally good; retail trade has continued active; our population has increased more rapidly than ever. Only in our mounting surpluses of agricultural products with greater and greater marketing problems and in the increase in instalment buying has there been any indication of a levelling off of the rising economy we have enjoyed for more than ten years.

The good fortune of Alberta has been reflected in our increased revenues accompanied by need for greater expenditures in every branch of the government.

Our municipalities have been made amply aware that such encouraging progress has attendant problems. The honest efforts of our local governments to discharge their responsibilities in the face of population pressures and the need for expanded facilities have been gratifying. The Government has recognized the progressive inadequacy of ordinary sources of revenue assigned to municipalities and has steadily increased its aid by way of grants for operating expenditures and loans for capital investment purposes.

The Government has earnestly striven to implement fiscal policies which

provide the highest possible standards of service to our people without endangering the orderly development of our province and the fair distribution of our prosperity.

The Budget I am presenting to you tonight reflects the confidence of the Government in the ability of our people to maintain our economic progress through another year. It reflects too, some measure of caution in the degree to which we feel it safe to subscribe to expenditure policies which must, by their nature, call for pyramiding costs year after year, whether or not there may be correspondingly increased revenue.

It is estimated that over-all revenues for the next fiscal year will total \$208,760,610, an increase of \$31,319,095 over last year's total of \$177,441,515.

Expenditures, exclusive of statutory provisions, are estimated at \$192,521,585 which is an increase of \$12,558,513 over last year's total of \$179,963,072.

Statutory provisions for loans will amount to \$49,900,000, making total estimated expenditures of \$242,421,585, and representing an increase of \$19,458,513 over last year's record total of \$222,963,072. You will note also that in order to provide for estimated expenditures, it will be necessary to draw on accumulated surpluses from previous years, an amount of \$33,660,975.

It is interesting to note, Mr. Speaker, that total expenditures estimated at \$242,421,585 represent an expenditure of approximately \$227.41 for each and every citizen of the Province.

As has been done in former years, I have prepared an informative summary showing the allocation of expenditures to each of the major services:

TOTAL ESTIMATED EXPENDITURES 1956 - 57

Service	Income Account	Capital Account	Total	Less: Reimbursement not included in Revenue	Net Total	Percentage of Net Total
Public Debt	\$ 5,524,500		\$ 5,524,500	\$ 841,000	\$ 4,683,500	1.93%
Executive Council and Legislation.....	2,568,615		2,568,615	32,000	2,536,615	1.05
Agriculture and Water Resources	3,146,155	4,264,195	7,410,350	121,260	7,289,090	3.01
Attorney General	4,502,910	1,223,250	5,726,160		5,726,160	2.37
Education and Vocational Training	39,161,130	2,840,400	42,001,530	611,870	41,389,660	17.07
Municipal Affairs	1,573,100		1,573,100	306,650	1,266,450	.52
Provincial Secretary	362,130		362,130		362,130	.15
Public Health	27,042,400	4,104,750	31,147,150	3,092,700	28,054,450	11.57
Public Welfare	14,056,920	3,800	14,060,720	2,658,975	11,401,745	4.70
Public Works and Railways	4,765,595	5,341,060	10,106,655		10,106,655	4.17
Treasury	12,502,150	85,000	12,587,150		12,587,150	5.20
Industries and Labour, Economic Affairs	2,140,450		2,140,450		2,140,450	.88
Lands and Forests	4,197,810	13,000	4,210,810		4,210,810	1.74
Mines and Minerals	1,613,350	164,500	1,777,850		1,777,850	.73
Highways and District Roads	16,394,665	42,594,205	58,988,870		58,988,870	24.33
TOTAL ESTIMATES 1956-57	\$139,551,880	\$60,634,160	\$200,186,040	\$ 7,664,455	\$192,521,585	79.42%
STATUTORY LOANS						
Alberta Government Telephones		\$ 8,000,000	\$ 8,000,000		\$ 8,000,000	3.30%
Municipal Capital Expenditure Loans Fund		25,000,000	25,000,000		25,000,000	10.31
School Construction Loans		12,000,000	12,000,000		12,000,000	4.95
Rural Electrification Revolving Fund		4,000,000	4,000,000		4,000,000	1.65
Homesteaders Loans Revolving Fund		900,000	900,000		900,000	.37
TOTAL LOANS 1956-57		\$49,900,000	\$ 49,900,000		\$ 49,900,000	20.58%
TOTAL BUDGET 1956-57	\$139,551,880	\$110,534,160	\$250,086,040	\$ 7,664,455	\$242,421,585	100.00%

PROVINCIAL MUNICIPAL ASSISTANCE

	Mar. 31, 1951 to Mar. 31, 1954 Actual	1954 - 55 Actual	1955 - 56 Estimated	1956 - 57 Estimated	Total Seven Years
Direct Financial Assistance:					
1. Education:					
Operational Grants to Schools	\$ 38,153,156	\$ 14,288,634	\$ 24,860,000	\$ 27,340,000	\$104,641,790
Construction Grants to Schools	7,374,992	4,996,937	4,500,000	6,000,000	22,871,929
Grants to Teachers' Retirement Fund	2,587,676	846,063	900,000		4,333,739
2. Public Health:					
Hospitalizations Grants	9,587,817	4,173,794	6,942,400	7,416,000	28,120,011
Hospital Construction Grants	2,292,759	245,533	500,000	900,000	3,938,347
Health Service Grants	150,341	63,947	60,000	65,000	339,288
3. Highways:					
Grants for Roads, Bridges and other structures	21,339,802	11,437,163	10,475,000	10,570,000	53,821,965
4. Treasury:					
Grants in lieu of Taxes	374,224	124,834	136,500	121,500	757,058
Municipal Assistance Grants	18,041,288	8,534,673	9,015,205	10,000,000	45,591,166
5. Attorney General's Department:					
Remission of Fines collected under The Alberta Liquor Act	416,030	119,004	130,000	120,000	785,034
6. Public Welfare:					
Indigent Relief	3,604,104	1,036,067	1,050,450	1,441,650	7,132,271
7. Lands and Forests:					
Refunds of Cultivation and Grazing Leases	1,483,440	475,957	500,000	500,000	2,959,397
TOTAL: Direct Financial Assistance	\$105,405,629	\$ 46,392,661	\$ 59,069,555	\$ 64,474,150	\$275,341,995
Indirect Financial Assistance:					
1. Medical and Hospital Care for Pensioners	\$ 6,735,833	\$ 2,817,190	\$ 2,810,000	\$ 3,150,000	\$ 15,513,023
2. Other Public Health and Welfare Services, such as Maternity, Polio, Cancer, etc.	7,886,796	3,738,298	5,076,400	4,154,300	20,855,794
TOTAL: Indirect Financial Assistance	\$ 14,622,629	\$ 6,555,488	\$ 7,886,400	\$ 7,304,300	\$ 36,368,817
TOTAL: Direct and Indirect Financial Assistance	\$120,028,253	\$ 52,948,149	\$ 66,955,955	\$ 71,778,450	\$311,710,812
Assistance by Low Interest Rate Loans:					
1. Self Liquidating Projects Act	\$ 21,994,279				\$ 21,994,279
2. Municipal Capital Expenditure Loans Act	25,000,000	35,000,000	30,000,000	25,000,000	115,000,000
3. Other Municipal Loans	12,200,000				12,200,000
4. School Construction Loans	11,238,973	7,279,600	9,000,000	12,000,000	39,518,573
TOTAL: Assistance by Loans	\$ 70,433,252	\$ 42,279,600	\$ 39,000,000	\$ 37,000,000	\$188,712,852