REPORT
of the
BRITISH COLUMBIA
DEPARTMENT
of
AGRICULTURE

FOR THE YEAR NINETEEN SEVENTY-FIVE

To Colonel the Honourable
WALTER STEWART OWEN, Q.C., LL.D.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit for your consideration the Annual Report of the Department of Agriculture for the year 1975.

DONALD M. PHILLIPS
Minister of Agriculture

Department of Agriculture,
Victoria, B.C.

Report of the Deputy Minister of Agriculture

The Honourable Don Phillips,
Minister of Agriculture.

DEAR SIR: It is my pleasure to present the Seventieth Annual Report of the British Columbia Department of Agriculture for the 12 months ending December 31, 1975.

The Report highlights the Department's progress in implementing and managing the wide range of policies and programs under its jurisdiction. I commend your attention to the various branch reports for detailed information on Department activities.

In a broad sense the primary objective of the Department of Agriculture is to encourage and assist the people engaged in the agriculture and food industry to achieve their economic and social goals consistent with the preservation of agricultural resources. Aiming at this objective, Department staff continually work with farmers and the food industry to increase food production in an efficient manner so that the Province may supply an increasing proportion of its food needs. The achievements of the Department are accomplished through the dedication and resourcefulness of staff working as a team.

The significance of this work takes on added meaning with the knowledge that the Province's farmers produce only about 50 per cent of the food consumed in the Province. We are in a net export position with a few commodities such as apples, raspberries, rapeseed, and fescue seed, and nearly self-sufficient in several others such as fluid milk, poultry and eggs, and some vegetable crops. But by contrast we are notably deficient in a number of commodities such as beef, pork, mutton and lamb, dairy products, forage, feed grain, and several other fruits and vegetables.

The Department's Executive Committee, consisting of your Deputy Minister, the Associate Deputy Minister, and the Directors, met weekly throughout the year to advance implementation and administration of Department policies and programs. The Executive Committee met with many agricultural organizations during the year for the purpose of co-operatively resolving problems and reducing constraints to progress.

On the national scene, a number of meetings were held with officials from the Federal Government and other provinces with a view to harmonizing the development of income stabilization and farm income assurance programs across the country. I look forward to a renewed thrust in 1976 with a hope that more comprehensive income security measures on a national basis may be implemented under the recently amended Federal *Agricultural Stabilization Act.*

Economic forecasts for 1976 indicate that production costs for farmers will continue to rise more rapidly than most farm product prices. Nevertheless as the Provincial economy picks up new momentum and local markets improve, I am confident the Province's agriculture industry can look forward over the longer term to continued orderly expansion on a number of fronts.

Respectfully submitted,

S. B. PETERSON
Deputy Minister

Report of the British Columbia Department of Agriculture

REVIEW

Economic Performance

British Columbia farm cash receipts increased by $29 million or 7.8 per cent to a record $395 million in 1975. The increase was consistent with trends in other parts of Canada. In contrast to the three previous years when increasing farm cash receipts were due mainly to increasing farm commodity prices, the increase in 1975 reflected a higher level of physical output associated with more moderate farm commodity price increases. Chart I illustrates the distribution of farm cash receipts according to the major commodity areas.

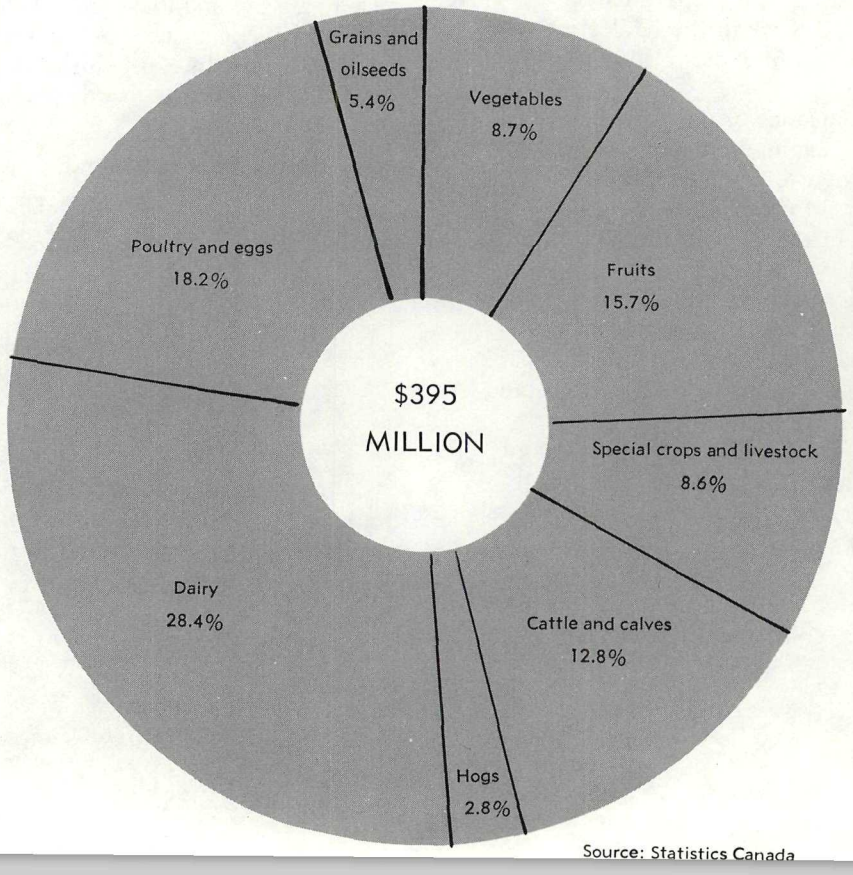
Although grain and rapeseed prices were generally lower, unusually favourable weather contributed to excellent crops. Forage output was also above normal and quality high in all areas except the central Interior. Fescue seed production was steady but prices sharply lower.

Cool summer weather combined with heavier precipitation during harvest reduced the output of several vegetable crops, although production was higher for others such as wax beans, broccoli, celery, corn, and potatoes. Mushroom production was also higher. Vegetable prices were generally higher with the exception of potatoes which continued low reflecting the large 1974 North American potato crop.

Although the growing season was late starting, tree fruit production was at or near record levels. Quality was high

CHART I

Distribution of Farm Cash Receipts, British Columbia, 1975



Source: Statistics Canada

except for sweet cherries, and prices were generally lower, especially apples, reflecting a large crop in the Pacific Northwest. Both production and prices were higher for grapes with some production in excess of winery requirements. Berry production was above normal but prices lower than production costs. Efforts were initiated to expand fresh market sales.

Honey production continued to increase although prices were lower than the previous year. Production and prices for flower and particularly nursery crops continued to show strength in 1975.

Prices continued at low levels for cattle and calves although slaughterings were up sharply reflecting extensive culling of herds. Hog and sheep populations were higher as were prices particularly for hogs.

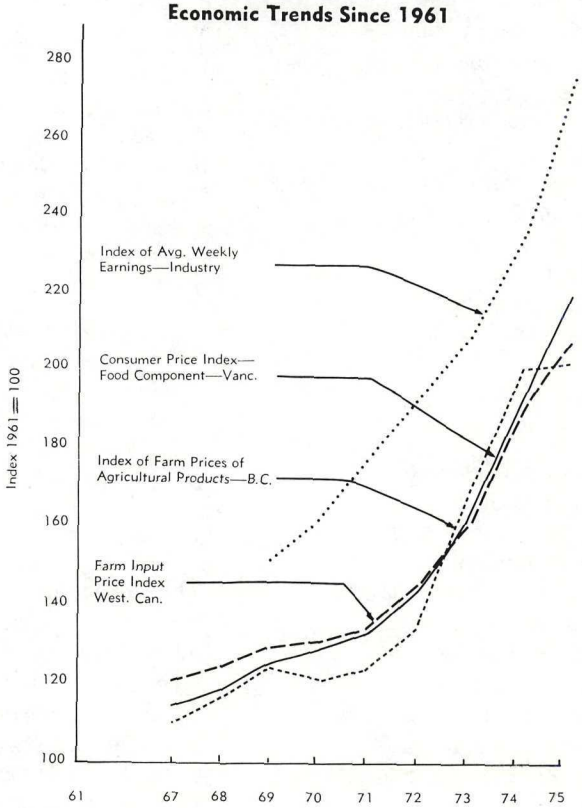
With higher returns in the dairy sector, milk production continued to increase in 1975. Although fluid milk sales levelled off, sales of milk for processing increased sharply with some producers reaching their Federal market share quota.

Some softening in poultry and egg prices was associated with slightly reduced production. Large poultry inventories at the beginning of the year were reduced to more normal levels by the end of the year.

Farm operating costs increased at a more rapid rate than farm cash receipts, although the rate of increase in costs in 1975 was lower than the previous year. The year was marked by a return to the traditional cost-price squeeze at the farm level, although some of the pressures were eased by the Department's financial programs. The Farm Input Price Index for Western Canada averaged 208.1 (1961=100) in 1975—9.1 per cent higher than the 1974 average. At the same time the

CHART II

Economic Trends Since 1961



Source: Statistics Canada

Index of Farm Prices of Agricultural Products for British Columbia average 205.8 (1961=100) in 1975—2.0 per cent above the average for 1974.

As in the previous year, inflationary pressures continued to filter through the economy during 1975 affecting both consumer prices and earnings. The retail price of food as reflected in the Food Component of the Consumer Price Index for Vancouver averaged 220.4 (1961=100) in 1975—13.1 per cent higher than the 1974 average (*see* Chart II).

The Index of Annual Average Weekly Earnings Industrial Composite for British Columbia averaged 267.6 (1961=100) in 1975—13.4 per cent higher than the average for 1974. In contrast to 1974, when the rate of increase in average earnings lagged behind the rate of increase in food prices, the rate of increase in average earnings during 1975 moved slightly ahead of the rate of increase in food prices.

With only a slight increase in agricultural commodity prices at the farm level, food price increases at the retail level during 1975 were due mainly to increased costs beyond the farm gate. With earnings keeping pace with increasing retail food prices, the proportion of personal disposable income spent on food remained steady at about 17.5 per cent in 1975. The cost of food in Canada relative to personal disposable income continued to be among the lowest in the world, second only to the United States.

Legislation

While there were no major legislative changes affecting agriculture during 1975, minor amendments were made to several Acts. The Acts amended included the *Bee Act,* the *Farmers' and Women's Institutes Act,* the *Domestic Animal Protection Act,* the *Farm Income Assurance Act,* the *Farm Products Industry Improvement Act,* the *Grasshopper-control Act,* the *Milk Industry Act,* the *Stock Brands Act,* and the *Weed Control Act.*

Program Highlights

The activity level under all Department programs continued at a brisk pace during 1975. A sample of program highlights included the following:

- The *Farm Products Finance Program* evaluated 70 project proposals. Financial assistance in the form of loan guarantees, direct loans, and share acquisitions was approved for nine projects.
- The *Farm Vacation Program* was well received with 280 people hosted an average of five days on operating farms and ranches.
- The *Program to Demonstrate Applied Technology and Economics* supported 37 projects during the year, including detailed mapping of frost zones in the Okanagan, assessment of range land reseeding techniques in the Interior, publication of Decision Aids for Farm Planning and Taxation Planning, and evaluation of overwintering techniques for bees.
- The *Entomology Program* continued to regulate the use of pesticides and carry out pest-control activities. During the year, agreement was reached between the Department, Agriculture Canada, fruit growers, and the Regional District of Okanagan-Similkameen for a three-year biological codling moth control program.
- The *Youth Development Program* in addition to continuing 4-H activities assumed responsibility for co-ordination of the International Agricultural Exchange Association of British Columbia enabling exchange visits by British Columbia youths with other countries.
- The *Agricultural Credit Program* guaranteed 81 loans and paid partial reimbursement of interest to 3,774 farmers. In the Bulkley-Nechako area, 53 farmers participated in special loans for feed purchase and 100 farmers in the Peace River area participated in special loans for the purchase of

breeding stock to increase livestock production. A total of 548 contracts were approved under the *Agricultural Land Development Act*.

- The *Income Assurance Program* introduced four new plans covering greenhouse vegetables, beef, broiler hatching eggs and commercial eggs. Total participants in income assurance plans increased from 2,900 to 5,400.
- The *Agriculture and Rural Development Program* saw a new agreement signed between the Province and the Federal Department of Regional Economic Expansion extending the program to March 31, 1977. During 1975, 22 projects were approved under General ARDA.
- The *Crop Insurance Program* continued to operate plans for berries, grain, grapes, and tree fruits and added a new plan for alfalfa. All plans completed the crop year in a surplus position.
- The *Engineering Program* continued to provide technical assistance to farmers on a wide range of engineering matters including drainage and irrigation assistance, farm structures, waste disposal, and farm mechanization. The staff played a leading role in evacuating cattle during the Sumas Prairie flood.
- The *Soils Program* conducted more than 150 on-site soil inspections in support of the B.C. Land Commission, analysed 1,400 soil samples, and provided drainage recommendations on tile spacing for 25 farms covering 2,002 acres. During the year an agreement was signed to transfer the Soil Inventory function to the Environment and Land Use Committee Secretariat.
- The *Veterinary Program* experienced a sharp increase in brand inspections, carcass inspections, and inspections at public saleyards associated with a sharp increase in cattle movements, sales, and slaughterings. A long-term measure to increase fees more in line with the costs of providing services was implemented during 1975.
- The *Allotment Garden Program,* which began in 1974 with 378 plots on four sites, was expanded during 1975 to 1,354 plots on six sites in Victoria and Vancouver.
- The *Extension Program* continued to see increased administrative responsibilities in connection with various Department programs in addition to provision of technical advice and information in co-operation with the commodity branches. Staff became more heavily involved in work of the various planning and technical committees associated with the establishment of resource management regions.
- The *Farm Economics Program* saw an increase in enrolment on record-keeping systems with enrolments in Canfarm reaching a new high of 293 participants. The program continued to become more heavily involved in farm management, planning, and production economics activities.
- The *Field Crops Program* initiated additional forage, fertilizer, alfalfa, corn silage, and range improvement demonstrations and trials in a number of locations aimed at increasing the over-all level of forage production in the Province.
- The *Livestock Program* continued to be heavily involved in performance testing and livestock quality activities, including dairy herd improvement, hog quality production, beef record of performance, and sheep record of performance.
- The *Marketing Program* was active in the support of marketing board activities, including those involved in national marketing plans. *Food Promotion* concentrated efforts to promote British Columbia food products on recipe sheets, mobile demonstration units, television cooking demonstrations, radio and newspaper advertisements, consumer information, and the PNE Country Fair.

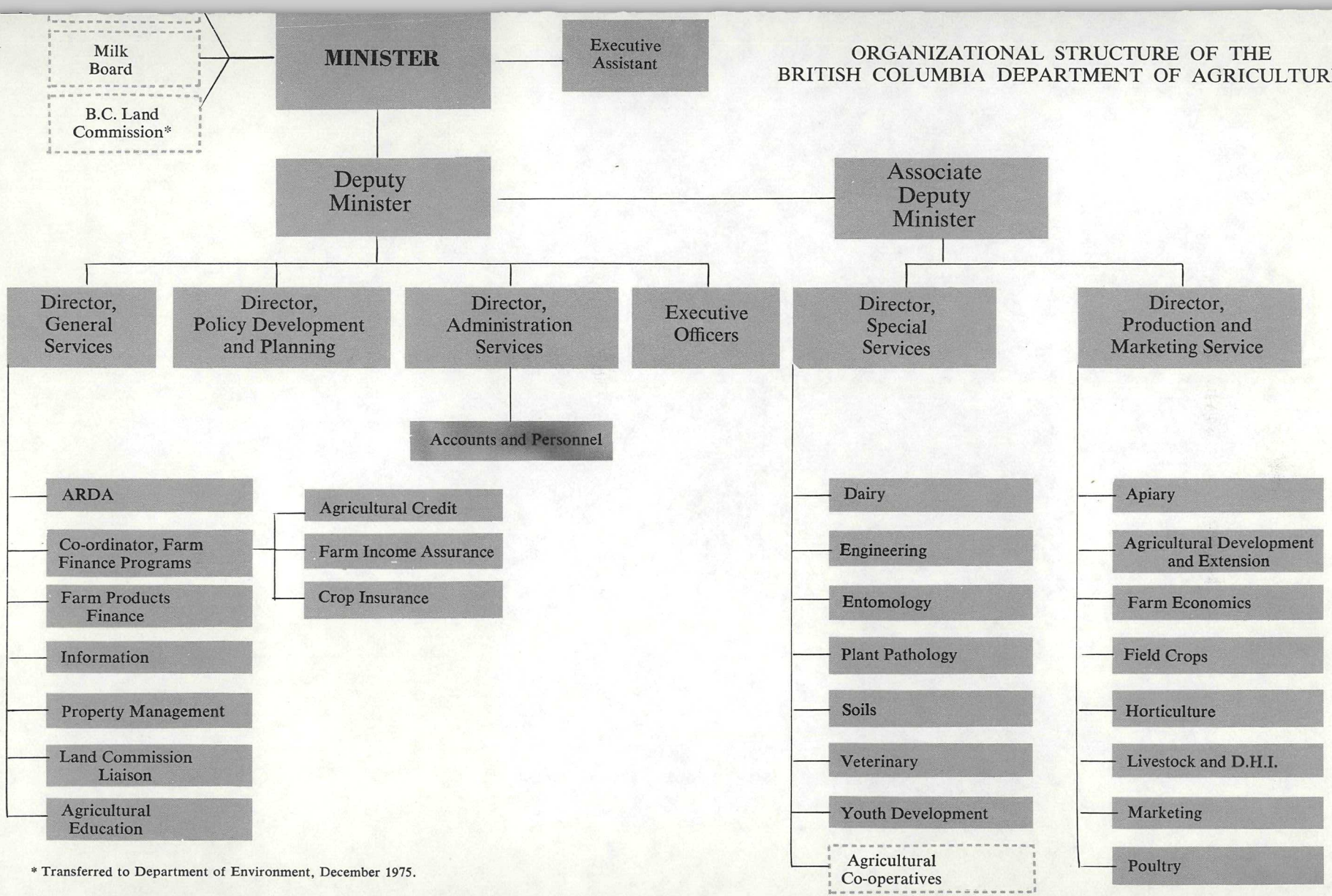
EXECUTIVE OFFICER

The Executive Officer is responsible for the administration of fairs and exhibitions, pound districts, and Farmers' and Women's Institutes. The number of fairs/exhibitions totalled 52, and there were 274 pounds and 89 Farmers' Institutes registered in 1975. A total of 145 Orders in Council were processed, of which 68 pertained to the Land Commission.

A number of agricultural Acts were amended during 1975. They are noted in a previous section of this Report under Legislation.

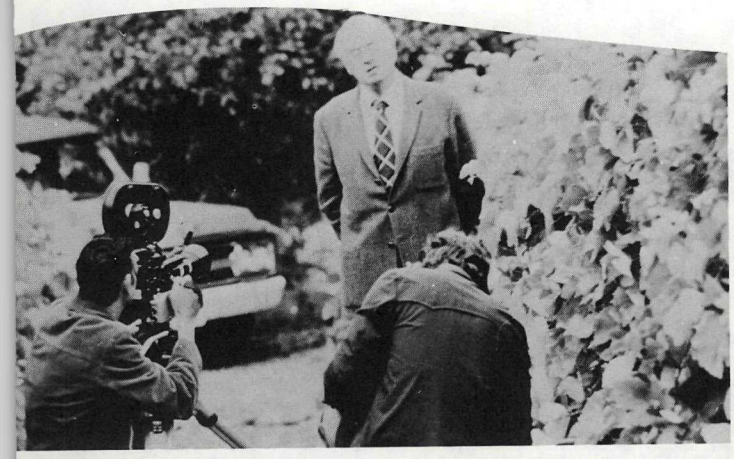
The Executive Officer sat on many committees, functioning as Secretary for the B.C. Fairs' Association, B.C. Farmers' Institute Advisory Board, Senior Staff Meetings, B.C. Food Advisory Council, and BCASCC.

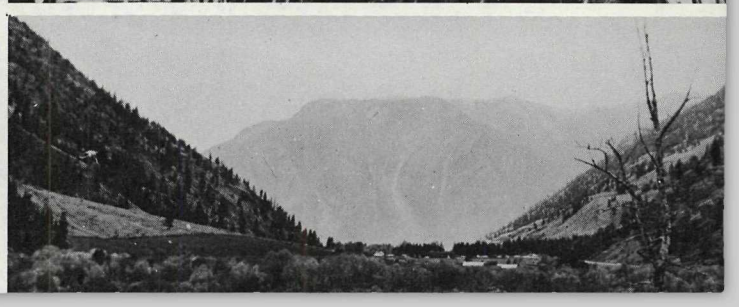
ORGANIZATIONAL STRUCTURE OF THE BRITISH COLUMBIA DEPARTMENT OF AGRICULTURE



* Transferred to Department of Environment, December 1975.

GENERAL SERVICES





GENERAL SERVICES

Agriculture and Rural Development Programs

GENERAL ARDA AND SPECIAL ARDA

The main thrust of General ARDA programs throughout the year continue to be in the areas of irrigation systems, drainage, and community pastures including range improvement.

Of major importance was the signing in July of a revised Rural Development Agreement between British Columbia and the Federal Department of Regional Economic Expansion. The new agreement extends the ARDA program to March 31, 1977. Changes of particular importance are

(1) raising of shareable percentage on land acquisition costs from 50 per cent to 100 per cent shareable;
(2) raising the agreed maximum shareable dollar figures for land acquisition and for land development;
(3) raise the shareable amount for irrigation projects from 66⅔ per cent to 75 per cent;
(4) removal of the dollar limitation of annual Federal contribution and total Federal contribution over the length of the agreement;
(5) expansion of the Designated Rural Development Region to include all of British Columbia except the four municipalities which make up Greater Victoria (i.e., Victoria, Oak Bay, Saanich, and Esquimalt), and the four built-up areas of Greater Vancouver (i.e., Vancouver, Burnaby, Port Moody, and New Westminster).

As a result of this enlarged area now eligible for ARDA assistance to industry, a set of guidelines were developed for the application of the Alternate Income and Employment Opportunities Section of the ARDA Agreement and agreed to by ARDA and DREE.

An Interdepartmental Committee consisting of officials from the following resource departments—Forestry, Fish and Wildlife, Water Resources, Economic Development, Human Resources, and ELUC, has been struck. This committee meets once a month to discuss potential ARDA programs and adjudicates on the wide variety of interdisciplinary requests for ARDA assistance.

During the year, also, an extended Special ARDA Agreement was negotiated and signed with DREE in July, applicable to March 31, 1977. This Special Rural Development Agreement provides for special programs for people of native origin and was essentially of the same form as the previous agreement.

During 1975, under General ARDA, there were 22 projects approved with a total cost of $14.3 million. The Provincial share will be $3.5 million.

Summary of Approved Projects, General ARDA, January 1 to December 31, 1975

	Number of Projects	Total Cost
		$
Research	3	401,000
Land use and farm adjustment	5	3,404,000
Rural development	2	698,000
Resource processing	2	6,015,000
Irrigation, drainage, and farm water supply	10	3,822,000
Total	22	14,340,000

Agricultural Credit

The *Agricultural Credit Act* provides benefits to farmers as follows:

(*a*) Guaranteed loans through chartered banks and credit unions to make additional credit available.

(*b*) Partial reimbursement of interest to reduce interest costs.

(*c*) Incentives through special interest and (or) principal reimbursement provisions to encourage farmers to participate in special programs proclaimed and encouraged by the Province.

In 1975, 81 loans were guaranteed representing $6,251,261, thereby increasing the total loans guaranteed since inception of the program in July 1974 to in excess of $8 million.

Partial reimbursement of interest paid by 3,774 farmers to approved lenders for the period July 1 to December 31, 1974, was made in 1975. This represented reimbursement of interest totalling $1,825,629 on loans made by farmers through chartered banks, credit unions, Farm Credit Corporation, the Federal Business Development Bank (IDB), and the Director of the *Veterans' Land Act*. Loans not guaranteed by the Province were reimbursed to an effective rate of approximately 8 per cent, and those with a guarantee under the *Agricultural Credit Act*, to approximately 8½ per cent. Reimbursement of a portion of the interest paid in 1975 to the levels established for the previous year will be made early in 1976.

Assistance to 53 farmers of the Bulkley-Nechako area of the Province was provided in 1975 to meet the costs of necessary feed supplies. Loans received totalled $213,619 and were eligible for a special reimbursement of interest to reduce the net interest costs to 4 per cent in 1975. These farmers were also eligible for a reimbursement of principal of 10 per cent of the loan, providing the loan was paid in full by December 31, 1975.

In 1975, 100 individual farmers participated in the Peace River Livestock Incentive Program, whereby $637,636 in loans were provided to encourage greater diversification from grain production to livestock. Special reimbursement of interest provisions has been made available to these participants whereby their net interest cost is to be reduced to approximately 4 to 4½ per cent for the fiscal years 1975–78, inclusive.

In 1975, 548 contracts totalling $3,392,434 were issued for primary and secondary land development under the provisions of the *Agricultural Land Development Act*.

Crop Insurance

The function of the Crop Insurance Branch is to administer the *British Columbia Crop Insurance Act* and to promote the maximum participation by eligible farmers in the crop insurance programs that are offered.

Until this is achieved, we cannot claim to be fully meeting the Provincial crop insurance objectives of providing joint participation in protection against climatic disasters, and through this a measure of stability to producers by guaranteeing a minimum level of production.

The Branch now administers five crop programs. A new plan for alfalfa growers was added in 1975 to the long-established berry, grain, grape, and tree-fruit plans.

For the third successive year the premium income has exceeded the amount paid out in indemnities.

The 1975 crop year was the first year in which all programs had a surplus for the year and the tree-fruit and grape programs are now in an overall surplus position since the commencement of the program.

Favourable weather during the more vulnerable times of the year is felt to be the main cause for this positive balance.

The success of the various programs, however, rests heavily on the personal approach by all Branch staff members as they provide the direct link between the farmer and the program.

The entirely new alfalfa program eventually got under way after a number of delays. Last-minute changes in the premium rates required by Ottawa required a rewrite and reprinting of the information brochure. This brought the mailing of applications too close to the onset of the mail strike for comfort.

Market prices for all berry crops have been disappointing. This, coupled with the failure of processors to take all fruit offered, has created an environment of doubt and uncertainty. Against this background of uncertainty, growers are reluctant to commit themselves to the additional costs of an insurance program.

Crop losses were mainly confined to raspberries, where primary bud failure on some plantings gave rise to a few claims.

Grain crops were adversely affected by a prolonged drought. Rapeseed crops in particular suffered where weed control had not been too effective, the weeds becoming established more rapidly than the rapeseed crop, resulting in sharply reduced crop yields.

Favourable weather during the harvest period enabled farmers to complete their harvesting in good time and kept late losses to a minimum.

Grain claims were lighter than expected, but included some sizeable payments to rapeseed-growers.

The grape program had another favourable year, with no crop loss payable and only minor vine loss indemnities to be met.

Participation this year was a record 59 grape-growers. This has been exceeded for the 1976 crop year with 68 applications received and a considerable increase in acreage covered. The new plan for 1976 marks the introduction of the "loss experience ratio table" and an increase in coverage levels to a maximum of 80 per cent of average production. Both of these presumably contributing to the increase in participation.

The normal winter conditions were followed by favourable spring weather so that most fruit crops set well and crops were heavy throughout the Okanagan. The only exception to this were pears, where, following a series of full crops, yields were below normal. The majority of claims were related to this crop.

Farm Income Assurance

In 1975 the number of farm income assurance programs increased to eight from four and the number of participants increased to over 5,400 from 2,900. Programs for dairy, swine, tree fruits, and field tomatoes were in place in 1974 and prior, while greenhouse vegetables, broiler-hatching eggs, beef, and commercial egg programs were implemented during 1975. Programs for sheep and blueberries currently are in an advanced stage of development. Programs for seven other commodities are being considered.

Several other provinces and the Federal Government have shown interest in British Columbia farm income assurance programs. A committee of senior staff from the provinces and Federal Government are working toward mutual agreement on agricultural stabilization.

All the programs have built-in incentives to encourage efficient production and are based on costs and returns of a well-run efficient farm unit model. Indemnities are paid to producers when market returns fall below a calculated basic cost of production. The participating producers pay one-third of the premiums and the British Columbia Government pays two-thirds. Although all commodity programs are based within a similar framework, each has its own specialized operational characteristics related to the individual crop concerned.

Over the long run, the programs should provide an equitable return for producers while supplying consumers with quality foodstuffs.

Farm Products Finance

The Farm Products Finance Branch was established April 1, 1974, to administer the *Farm Products Industry Improvement Act*. The purpose of this Act, which was passed in the fall of 1973, is to encourage and assist in the continued development and expansion of the agricultural industry of the Province.

During 1975, 70 proposals were evaluated. Nine projects representing approximately $26 million in loan guarantees, direct loans, and share acquisitions were approved for financial assistance. Projects approved included food processing, poultry products processing, alfalfa dehy production, tree-fruit packing and storage, fruit and vegetable processing, and fertilizer production.

Other proposals were rejected due either to a lack of indicated financial viability within a reasonable time or to an inability to show that the proposal would have a significant beneficial impact on the agricultural industry of the Province.

Financial assistance was provided for a market study concerning the possible establishment of a beef-processing plant in the southern Okanagan. As well, assistance was provided for a financial feasibility study on the expansion of an apple and grape juice plant also located in the Okanagan. Financial assistance is to be provided also for the promotion and use of dehy products as feed by the livestock and dairy industry.

Information Services

A transition of objectives took place in 1975 within the Information Branch; that of concentrating efforts to service the Department's primary audience—British Columbia farmers versus the predominantly consumer-oriented programs of years past. The majority of projects either carried out or initiated in 1975 by the Branch were designed to assist Department staff in their professional duties of providing farmers with technical, financial, management, and (or) cultural services. Much of the benefit of this transitional groundwork laid in 1975 will be realized in one or two years hence and programs expanded further when appropriate.

A total of 78 printed information pieces was produced in 1975 or prepared for printing in early 1976. These included technical agricultural publications, information brochures on new programs, and factsheets to update farmers on current situations, recent technical advances, or new management practices. The increasingly popular factsheets are mailed to producers in the commodity enterprise concerned.

Ninety news releases dealing with new legislation, progress of existing programs, appointments, and Ministerial statements were issued during 1975. They were mailed to approximately 1,200 print and electronic media, agribusiness, Governments, and Government agencies across Canada. Sixteen news releases dealt specifically with new programs and policies as well as modifications or progress on existing programs.

The Branch placed over 30 institutional advertisements in various agricultural media to publicize Departmental services, announce new programs, and create producer awareness of agricultural events. Assistance also was given to individual branches in placing numerous operational advertisements dealing with specific Branch projects.

Under the series name of "Grassroots," eleven 30-minute films produced in 1974 were broadcast weekly on the CBC-TV network beginning in July 1975 and ending in mid-September. The films featured all aspects of British Columbia agriculture and were of particular interest to the nonagriculturist sector of the community in creating among them a

greater awareness of agriculture. Although most of the filming completed during 1975 focused on producer education presentations, four general interest films also were prepared and are scheduled for completion in early 1976.

Preparation of extension presentations for producers took precedence during 1975, most notably in the audio-visual medium. In addition to the long-standing horticultural chautauqua television seminar held each spring, a similar beef chautauqua television seminar was produced in 1975 for initial broadcast in February 1976 in British Columbia's beef-producing areas. This use of television as an educational medium is expected to continue. Concentrated effort was put into an expanded still-slide library for future slide-tape audio-visual presentations used by specialist field staff in their extension duties.

Branch personnel entered an agricultural display in four agricultural community fairs throughout the Province. There was strong public demand for consumer and agricultural publications produced by the Department.

Property Management

The first year's operation of the Property Management Branch has now been completed and the pattern of activities is more obvious.

A strong liaison is being maintained with the British Columbia Land Commission in supplying both technical data and management advice on properties purchased by the Commission and managed by this Branch.

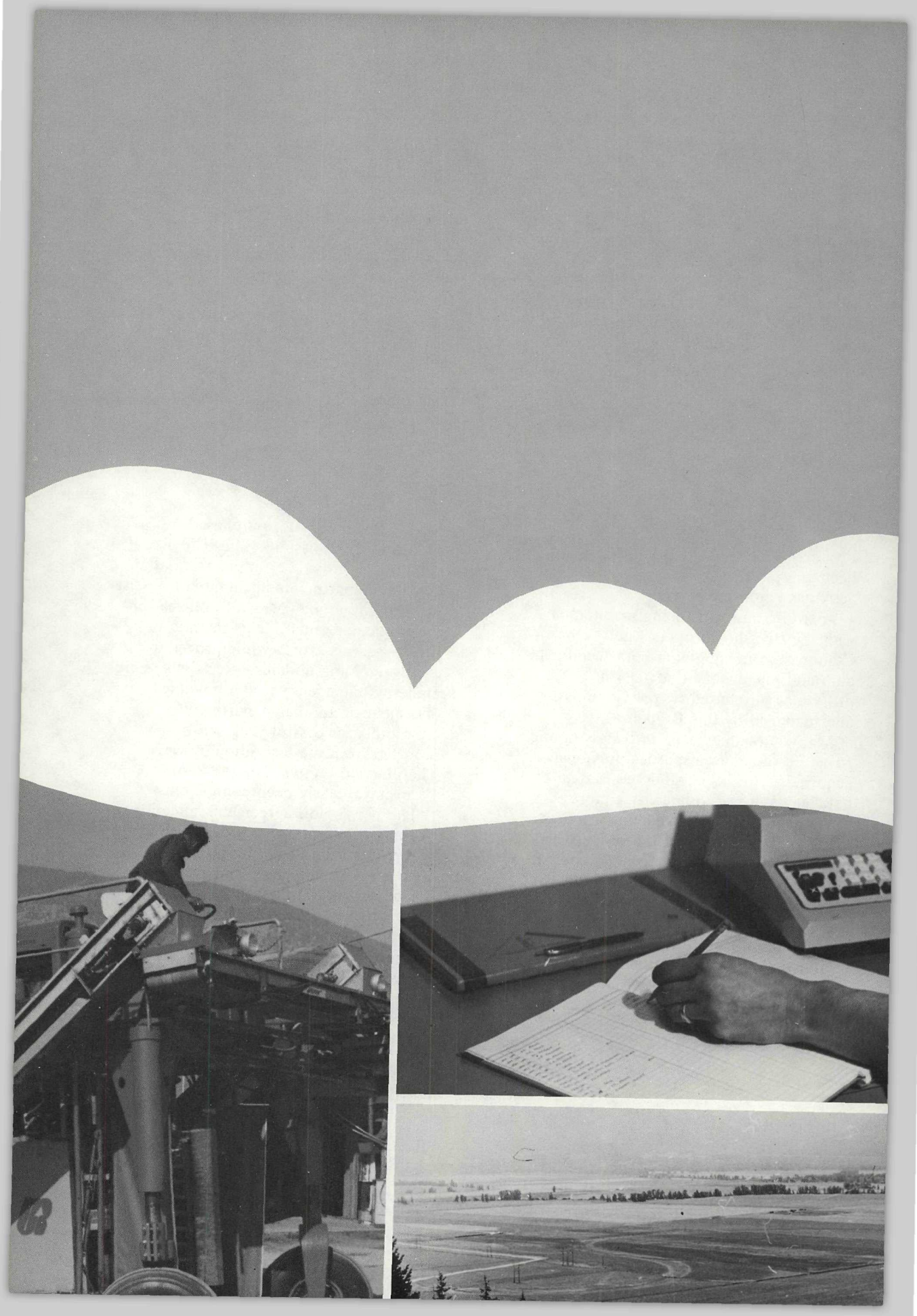
Many anomalies exist in the economic structure of some properties previously acquired. But, as existing leases expire, new leases are negotiated at a more realistic value. Improvements are being made to the majority of the properties on a priority basis within budget controls and tenants are being encouraged to upgrade their properties to improve productivity.

In addition to the normal month-to-month rental administration function, the Branch has formed advisory committees for the larger ranches purchased by the Land Commission. These advisory committees provide an input from all resource departments in the area to assist in formulating management policies for the particular ranch. This method is proving a very worth-while procedure and is avoiding unilateral decisions being made by one agency to the possible detriment of another department.

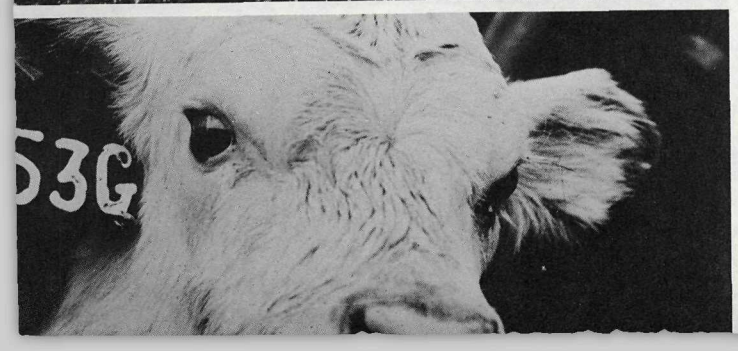
Another successful year can be reported from the institutional farms. The planned renovations to Colony Farm have nearly been completed.

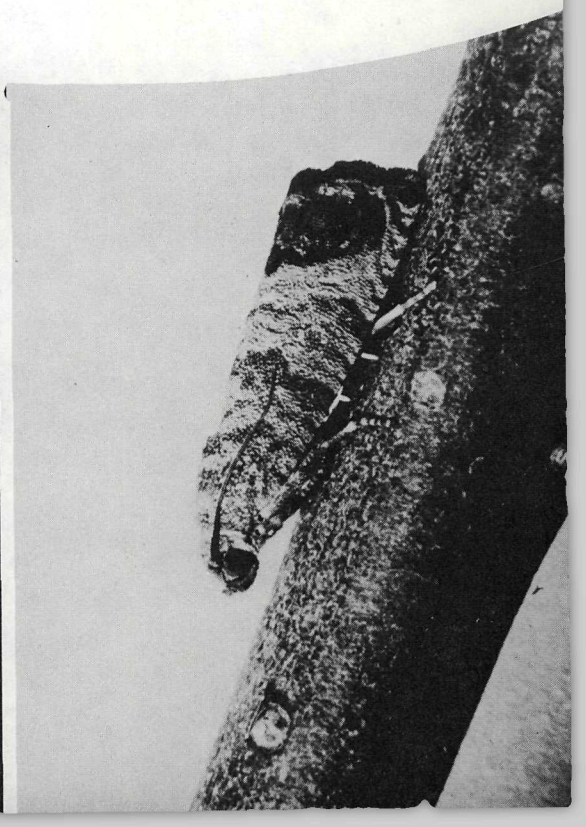
The new union agreements affecting working schedules were a major concern in the operation of the farms. It appeared that very little consideration was given to farm operations while union agreements were being considered.

High productivity from the farms can be reported again and the statistics are available upon request.



PRODUCTION and MARKETING SERVICES





PRODUCTION and MARKETING SERVICES

Apiary

Once again cool, wet weather has resulted in a reduced honey crop. Honey production in the fireweed areas of Vancouver Island and in the Peace River district was 50 to 60 per cent below normal.

Active beekeepers in the Province number 3,965, a gain of 893 new producers since 1974. Number of colonies increased from 41,175 in 1974 to 45,855 in 1975. This is the third consecutive year during which numbers of colonies and producers have shown a substantial increase.

The total honey crop during 1975 was 4,033,905 pounds (1,829,767 kg.), 760,000 pounds more than the 1974 crop of 3,339,660 pounds (1,514,860 kg.). Cold weather during August again resulted in at least a 2,000,000-pound (907,194 kg.) reduction of the total honey crop.

The wholesale market for honey was only fair, whereas retail sales continued generally good. Local markets were disrupted, however, when some Alberta producers brought in and sold large volumes of their honey at well below market prices.

The price of No. 1 white honey in bulk 660-pound (299-kg.) barrels ranged between 40 cents and 43 cents per pound f.o.b. The on-farm price for honey has ranged as high as 90 cents per pound, with an average of 75 cents per pound.

Although the price of sugar for feeding bees has decreased since 1974, the present price of between $28 and $30 per 100 pounds represents a costly expenditure.

Bee diseases were slightly lower in 1975 compared with 1974.

Colonies inspected numbered 12,213 compared with 9,666 during 1974. A total of 55,149 brood combs was inspected in the warehouse. The incidence of American Foulbrood and European Foulbrood was less in 1975 than during 1974, whereas Nosema and Chalkbrood diseases increased. The increase and spread of Chalkbrood throughout western Canada is causing concern among honey producers.

Producers of tree fruits, small fruits, White Dutch clover, and vegetable seeds continue to use honeybees for pollination. The use of honeybees for planned pollination is of much greater importance to agriculture than for the production of honey.

DATE funds were again allocated to continue studies on wintering colonies of honeybees in a controlled environment. The spiralling costs of package bees and queens increases the need for and value of this program.

Two demonstration apiaries were established, one at Vernon and one at Cloverdale. These apiaries are being used to test equipment, disease-control procedures, and methods of management.

Tests were carried out using Ethylene Oxide (Oxyfume) to fumigate diseased brood combs. The present practice of burning infected equipment is costly and

wastes expensive equipment. Results to date are very encouraging. Tests will continue during 1976.

Extensive tests and demonstrations were undertaken to help reduce bear damage to beehives. Electric fences, screened pallets, emetic inducing compounds, and other devices were tested. The results of this work will enable the Department to recommend the best methods of protection against marauding bears.

Many beekeeping courses were conducted throughout the Province as a result of the increasing public interest in beekeeping. Over 2,500 information packages were sent to persons requesting advice.

Development and Extension

In 1975 the Development and Extension Branch was involved in a wide range of programs and projects which provided assistance and service to the agricultural industry. District Agriculturists, located in 17 district offices throughout the Province, responded to a large number of inquiries and initiated both regional and district extension programs. Many inquiries dealt with the Beef Income Assurance Program, special incentive programs under the *Agricultural Credit Act,* land clearing, and information on production, marketing, and farm economics. Branch staff responded to serious emergency situations such as the flooding of the Vedder area in the Lower Fraser Valley in early December and surveys of crop loss due to adverse weather at Grand Forks, Quesnel, and the Tatla-Anahim area.

Regional extension programs were established for dairy and beef cattle producers dealing with forage crop production, marketing of dehydrated alfalfa products as livestock feed and community pasture usage and administration.

Meetings and field days were held in all regions of the Province to provide producers with information on a wide range of subjects, including forage production, range management, farm business management, manure handling, dairy, beef, and sheep management, and agricultural engineering. Demonstration work in forage and cereal varieties, soil fertility, beef feeding, range and wetland development, and Christmas trees provided the focal point for many producer field days.

The Branch has been heavily involved in co-ordinated resource management planning with other agencies. Field staff have been assigned to regional committees to represent the agricultural interest in resource management. These interagency committees have included Regional Resource Management Committees, Regional Predator Management Committees, Land Management Committees, and Technical Planning Committees.

The Branch provided field service to a number of Departmental programs. The Farm Business Management program has received priority attention, and producer interest in the program is expanding. The district agriculturists were involved in interpretation of farm records from the CANFARM and AJOHN programs and collection of cost of production information from various crops.

The Federal-Provincial Small Farm Development Program is administered by the Branch. Five Farm Business Management Consultants are located throughout the Province. The consultants work closely with the district field staff on farm economics but give priority to providing in-depth counselling to small and emerging commercial farmers. The general response to the program has been very positive.

Farm Economics

The Farm Economics Branch plays an important role in advising and assisting farmers when making their management decisions. Farm records and their analysis is the key upon which the Branch provides this service to farm managers.

The Farm Economics Branch offers the B.C. Farm Account Book and the CANFARM record system to British Columbia farmers. During 1975 enrolment on the Canfarm system increased substantially, while use of the B.C. Farm Account Book Program declined as managers were transferred to CANFARM. A long-term comparison of enrolment is shown in Figure 1. A comparison of enrolment for 1975 compared to 1974 is shown in Table 1.

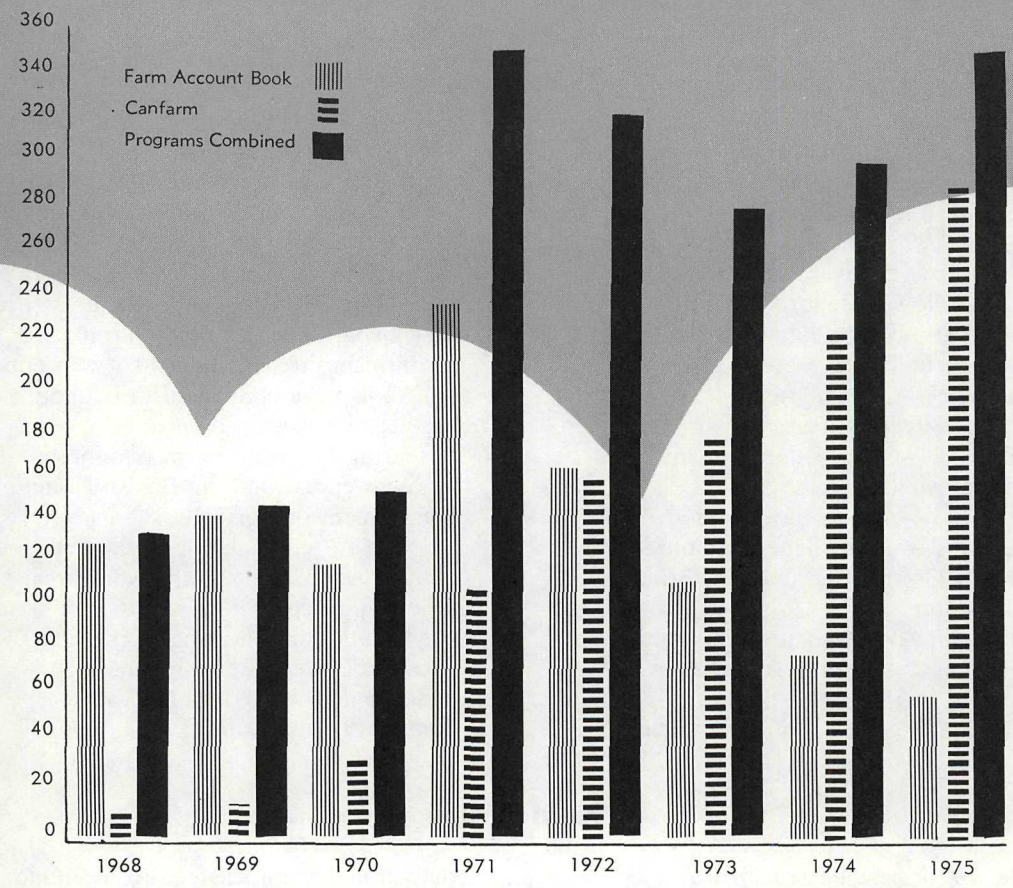


Figure 1. Comparison of Enrolment on British Columbia Farm Account Book and CANFARM Program, 1968 to 1975, Inclusive

Table 1—Comparison of 1974 and 1975 Enrolment on British Columbia Farm Account Book and Canfarm

Record System	1974 Enrolment	1975 Enrolment	Change as as per cent of 1974
B.C. Farm Account Book	72	52	−28
Canfarm (V2 and V3)	212	293	+38
Total	284	345	+21

During 1975 two comparative analysis reports were published for use by farm managers. These were the 1974 B.C. Farm Business Analysis Report and 1974 B.C. Dairy Farm Business Analysis Report.

A number of booklets were produced as education resource materials in 1975 to provide district staff advisers

and farmers with guidance on farm business planning. They are:

Taxation and the B.C. Farmer
Sources of Farm Credit in British Columbia
Your Home Business Centre
British Columbia Farm Business Management Data Handbook (for release in 1976)

In 1975 the use of the *portable computer terminal* and *computerized decision aids* was being tested. Decision aids currently offered to clients include (1) loan calculator program, (2) feed formulation program, (3) cash flow forecaster, (4) machinery replacement planning program, (5) machinery buy vs. custom hire program.

During 1975 the costs of production were studied for several commodities with the following reports being released:

CDS 188—Silage, hay, and pasture, Robson Valley.
CDS 189—Creeping red fescue seed, B.C. Peace River.
CDS 190—Grape establishment, Kelowna.
CDS 191—Alfalfa hay, Salmon Arm.
CDS 192—Corn silage, Salmon Arm.
CDS 193—Hay production, Prince George.

The joint Alberta-British Columbia study on creeping red fescue was completed in 1975 with the Farm Economics Branch compiling the costs and returns section of the report in co-operation with the Market Intelligence Division of the Alberta Department of Agriculture.

During 1975 a study of computer needs of the British Columbia Department of Agriculture was compiled, resulting in the development of new computer systems and programs for (1) prediction of egg production in British Columbia, (2) calculation of cost data study results, (3) statistical analysis related to dog licensing requirements under the *Domestic Animal Protection Act,* (4) calculation of interest reimbursement claims under the *Agricultural Credit Act.*

Ongoing projects completed during 1975 included work on 4-H statistics, calf-loss study, grain quality study, and the B.C. Farm Account Book project.

Four staff-training sessions, to ensure that Departmental staff are up to date on farm business management concepts and tools,were conducted throughout the year by Branch personnel.

During 1975 the Farm Economics Branch represented the British Columbia Department of Agriculture on several Provincial, regional, and national committees relating to the work area. One of particular note was the organization and hosting of the first Western Canada Farm Business Management workshop held at Vancouver in late 1975.

Field Crops

The 1975 growing season was characterized basically by a very wet, cold, delayed spring; a moderate mid-summer; a very wet, cool August; an open, early fall, and a very wet, late fall. Forage yields were above average in most parts of the Province except in the Peace River where yields were reduced due to summer moisture deficiency. Field losses of forage were heavy in central British Columbia and in the Cariboo-Chilcotin due to rain damage.

The South Peace Dehy Products Plant at Dawson Creek, which produces dehydrated livestock feed from alfalfa, operated at less than capacity because of dry conditions which reduced yields to 1.1 tons per acre. By contrast, irrigated alfalfa yields in the southern interior averaged 5 tons per acre and the new Kootenay Dehydrators Plant at Creston, although it opened late in the season, was able to process a substantial tonnage.

In the Peace River area, very favourable harvesting conditions prevailed, resulting in a complete harvest of grain and oilseed crops of greatly improved quality. Barley and rapeseed

acreages increased substantially in 1975. Rapeseed, at 82,000 acres, now ranks second to barley in terms of acreage of annual crops in British Columbia.

Co-operative trials with cereals included an extensive variety trial at Dawson Creek and a fertilizer trial at Fort St. John. In the latter trial the fertilizer application based on soil tests resulted in the highest yield of barley and the best return per dollar of fertilizer invested. An extensive grain quality study, now in its third year, was also conducted. The Earth Resources Technology Satellite (Canada, U.S. Groundtruthing) Project was again conducted on a 20-square-mile site at Dawson Creek.

Yields of forage seed crops were relatively good in the Peace River area. Because of increased yields, total fescue production was considerably higher than in 1974. In many districts, fescue is well established as part of a regular rotation, and even though the market has become very depressed, the plough-down acreage was not as great as anticipated.

The Field Crops Branch co-operated with the Alberta Department of Agriculture and BCDA Farm Economics Branch in a comprehensive study on the production and marketing of creeping red fescue seed. This report was released in April 1975.

In central British Columbia and the Cariboo where there are now approximately 377,000 acres of improved land, mostly in forage crop production, the Branch has initiated a greatly stepped-up program of forage and fertilizer demonstrations and trials involving approximately 20 locations. Large-scale alfalfa grass variety trials on a number of alfalfa varieties grown in pure stand and cross sown with grass varieties have been established at Alexis Creek, Lac la Hache, Quesnel, and McBride. Economics of fertilizer application were demonstrated on a number of sites including the Punchaw area. A considerable input was also required on a consultive basis on Community Pasture Development in central British Columbia and the Peace River.

In the southern Interior, a co-operative alfalfa production committee was set up to conduct alfalfa production and management demonstrations at Creston, Lillooet, and Vernon.

Corn silage production increased to 20,000 acres in 1975, 14,000 of which were in the Fraser Valley. In co-operation with district agriculturists, variety trials and demonstrations were conducted on 18 farms throughout the corn-growing areas. In addition, fertility trials involving different rates of nitrogen and phosphorous were conducted on three farms in the Fraser Valley. An extensive corn management survey involving all aspects of corn production management was also conducted.

Range improvement projects in the Cariboo-Chilcotin, Kamloops, and East Kootenays included four DATE projects involving grazing management, range development, range renovation, and a range renovation equipment project. All were conducted in co-operation with other agencies, including the British Columbia Forest Service, Agriculture Canada, and BCDA Engineering Branch. Two range specialists were appointed to integrated resource management study committees which have been instrumental in bringing together people from various resource departments. This resulted in a noticeable decline in the amount of criticism of range management appearing in the news media. In 1975, crested wheatgrass seeded in 1970/71 on the Semlin Ranch at Cache Creek yielded in excess of 200 per cent over unseeded range. At Alexis Creek, plots of crested wheatgrass fertilized 92 pounds of nitrogen three years ago, still showed increases of 50 per cent over nonfertilized plots in the third year of production following application.

Weed control received greatly increased attention in 1975. A major Provincial program on the control of diffuse knapweed in range land areas is

now under way. More than 1,500 acres of infestation were sprayed with Tordon in 1975. Advisory Weed Control Committees have been established in the Okanagan-Similkameen, Thompson-Nicola, Kootenay-Boundary, Central Kootenay, and North Okanagan Regional Districts. North and Central Okanagan are in the process of forming committees.

Control of weeds other than knapweed was also stepped up substantially. Two weed inspectors were again employed in the Peace River area. In addition to normal inspection duties, a program of roadside weed mapping was initiated to enable the Department of Highways to maintain control of problem sites. In the North Okanagan, a program designed to contain Hoary Cress was activated in co-operation with the Municipality of Spallumcheen. In the Lower Mainland, the municipalities of Kent, Matsqui, and Abbotsford applied for and received grants for weed control.

The Branch conducted more than 50 weed-control demonstrations and test trials on a wide range of field and horticultural crops in 1975. More than 40 of these were summarized and forwarded to the Canada Weed Committee for inclusion in the reports.

Monitoring was carried out on four industrial spray projects.

Potato acreage increased to 10,400 acres in 1975 including the 1,500 acres grown at Creston. Movement of British Columbia potatoes to the Vancouver market increased to 66 per cent in 1975 from 57 per cent of the total fresh market in 1974. Movement from Alberta and Washington dropped due to lower acreages in those areas. Two part-time inspectors kept a close check on all potatoes coming into Vancouver and Victoria from Alberta and the United States as part of a program designed to keep out Bacterial Ring Rot. These inspections have reesulted in a significant improvement in the general quality of potatoes shipped to British Columbia.

Regional variety trials involving 17 varieties were conducted at four locations. These varieties are being evaluated for french fry and saratoga chip qualities as well as for table quality.

Extensive fertility trials with potatoes were conducted at Creston and Grand Forks.

The Soil, Feed, and Tissue Testing Laboratory at Kelowna processed 9,780 soil samples with nine routine determinations per sample plus a number of special tests for a total of 91,255 determinations. In addition, 3,748 feed and tissue samples involving 20,257 determinations were processed. Total revenue was $27,831, a 30 per cent increase over 1974. Co-operative projects involving the laboratory included a corn and forage fertility study in the Fraser Valley, corn fertility trials in the Okanagan, forage crop nutrient and fertility study at Prince George, meadow soil research at Kamloops, Peace River grain quality study, tree-fruit leaf critical level survey and survey of nutrient values of native vegetation on range and forest land.

There was a very light movement of lime in the areas eligible for subsidy.

The Creston-Wynndel Feed Grain Freight Assistance Policy was terminated in April 1975. A total of $15,334 was paid to 27 claimants on 2,735 tons during the 1974/75 fiscal year.

As in past years, the staff of the Field Crops Branch has been heavily involved in extension programs, field-days, seminars, and planning sessions, as well as inter-resource meetings.

Horticulture

The Horticultural Branch has had a busy year because of the record volumes of crop in many areas. Each horticulturist found his specialty in strong demand throughout the year, from the start of growth until the end of the marketing period.

Climatic and cultural practices combined to produce the first full crop of apples since 1963, the largest peach crop since 1964, and the largest cherry crop on record. A continuation of the upward trend on grapes occured with another record crop. Crops of mushrooms, nursery stock, greenhouse vegetables, and flowers were all increasing.

There are problems in the berry and vegetable industries, especially those destined for processing. There was great uncertainty as to whether labour negotiations in the processing plants would be settled in time to plant the crops. The settlement came so late at one processing plant that 2,000 acres of peas were not planted.

The strawberry and raspberry growers had a disappointing year. Lower-priced imports of fresh processing berries and processed products undermined the price structure so badly that the industry is now in danger of being lost. The position of the blueberries has improved over the last year but still has a ways to go on returns to meet the cost of production. A number of other berry crops have problems including cranberries, loganberries, and blackberries.

Economic problems are of special concern to many producers of horticultural crops. Imports from countries with lower standards are increasing and no effective check on this movement appears to be possible. Consequently, unless growers have at least the assistance of the Income Assurance Program, they will fail. Of course, a national program of price stabilization would be of great assistance to the horticultural industry of British Columbia.

The raspberry industry had a new innovation in dealing with their problems. They had four of the younger growers' wives offer their services to put forward their situation and elicit help from all available sources. Briefs were prepared and presented, resulting in a grant from the Province for promotion and direct assistance by various Provincial agencies and departments. A member of the raspberry industry was included in a trade mission to Europe and trade inquiries were made in Japan. Raspberries were promoted in many ways and the result was a much greater awareness of the importance of raspberries in this Province.

The Allotment Garden Program started in 1974 with 378 plots on four sites and has expanded to 1,354 plots on six sites. These are set up in Victoria and Vancouver to service those living primarily in multiple-unit dwellings having no access to land for vegetable production. Allotment gardens of 1,000 square feet will produce more than an estimated $375 worth of vegetables and a few flowers as well. The general public has been most appreciative of this program.

The Plant Protection Advisory Council has been active in examining regulatory activities in the area of plant pest control. A considerable amount of time has been spent at meetings and doing investigative work or in drawing up regulations as a result of the council's decisions.

The council has made slow but worth-while progress in the area of pests such as balsam wooly aphid, pear trellis rust, European pine shoot moth, and golden nematode, to name only a few of the subjects discussed during the course of the year. This council is the only adequate forum for the views of growers and all levels of Government to be aired and presented in concert when changes in legislative programs are needed. As such, the council performs a vital role.

In April 1975, Horticultural Branch offices were opened at the Summerland Research Station, after many months of planning. The horticultural supervisor for the Interior, A. W. Watt, now is located there along with the district horticulturist for the area and the horticulturist in charge of the apple program. This first step in close liaison with Agriculture Canada has worked well. A similar move was made in the Victoria area in September when the district horticulturist for Vancouver Island was located at the Sidney Research Station along with the allotment garden supervisor.

Livestock

The dairy and hog industries continued to enjoy a favourable year with respect to returns. Income assurance programs have been in place long enough to have a stabilizing effect on both industries.

The beef industry made a historical step during the year in a decision to adopt a Beef Income Assurance Program. Impact of the program was only beginning to be felt near the year-end. Prices received during the heavy marketing period during this fall indicated all but very uniform lots of steer feeder calves were heavily discounted. American buyers were in evidence at sales during the latter part of the year.

The sheep industry, according to Statistics Canada, increased its numbers in the Province slightly during the year. The major thrust of producer organizational effort has been in connection with an attempt to organize a Sheep Commission and an Income Assurance Program.

While the Livestock Branch was represented at three national meetings of the now renamed Canadian Milk Recording Board, only limited progress has been made toward implementation of the national milk recording standards. Additional resources are needed to go further with these. The Dairy Herd Improvement Division carried out its work for the majority of 1975 with less than normal staff requirements.

Some progress has been made in developing an improved Dairy Feeding Recommendation Service. Commencement of pilot work on this new model is dependent upon provision of an adequate computer terminal under the CANFARM Program.

The Hog Quality Production competition sponsored by the Livestock Branch indicates some interesting facts. It is of note that patterns for 1974 have indicated similarities in production as related to volume, as between 1974 and 1972. In both years, there were 26 producers who produced 400 hogs or more per year, which were slaughtered and graded in British Columbia. However, the number of hogs marketed by 26 producers was 24,103 in 1972 and 37,391 in 1974. Resources to commence a Swine Record of Performance Program were not available during the year. Patterns for production during 1975 will not be available until 1976.

Enrolment in the Beef Record of Performance Program continues to grow with 9,201 cattle on test in 240 herds during the year. There is only limited evidence to suggest that breeders use the data from the program for selection purposes. British Columbia hosted a very successful annual National Beef Record of Performance Advisory Committee meeting during June. This is the first time the group has met in British Columbia.

Plans by Agriculture Canada to develop a national Sheep Record of Performance Program did not materialize during the year; consequently, the performance program initiated by the Livestock Branch during 1970 was continued. A total of 18 flocks were enrolled, involving 1,165 lambs during 1975, up four flocks from the previous year.

Enforcement work under the *Domestic Animal Protection Act* could not be expanded during the year due to lack of personnel. Headquarters administration work has continued to increase.

The Livestock Branch has been actively involved in studies associated with production of animal feed from wood waste. Further efforts in this direction will be made in 1976.

Marketing

The proclamation in February of the revised *Natural Products Marketing (British Columbia) Act* introduced a new dimension into the regulated marketing structure of the Province. In the main, this took the form of increased intervention by Government into that part of the total marketing process occupied by those products currently under regulation by the 10 commodity marketing boards established under the Act.

Among the changes effected by this new legislation, the most obvious was the reorganization of the British Columbia Marketing Board and the expansion of its supervisory role. Whereas the original Provincial Board comprised three public servants, the newly constituted body has five members, all appointed by government from the private sector, and reimbursed on a *per diem* basis for their services.

The extension of the Board's powers now include the authority to hear appeals from persons who may feel they have been aggrieved or injured by any action of a commodity marketing board, and during 1975 two such appeals were heard. In addition the Board carefully reviewed all marketing boards orders to ensure that these were drawn in the best interests of all concerned, and recommended changes where such were considered necessary.

For the greater part, the Board's attention was focussed on the poultry industry, and on activities of the egg and turkey marketing boards in particular.

These two marketing boards are now each directly involved in national marketing plans under Federal legislation. As signatories, along with the Government of British Columbia, the boards are now committed to the terms of their respective national plans. An integral feature of the latter is the development of supply management programs which, among other things, have resulted in production rollbacks to bring supply and demand into balance.

At the Provincial level, a guidelines policy was devised by the Department to stimulate a process of decentralization in the egg industry. This had been deemed advisable because of a heavy concentration of production facilities in the Lower Mainland and a presumed shortage in outlying areas. During the year, there was a steady flow of marketing quota allocation outward from the Lower Mainland, virtually all of which accrued to producers already established in the less-populated regions. The transfer of actual production units which had been anticipated under the guidelines did not materialize, instead one of only two tangible results was the increase in size of existing units in the Interior and on Vancouver Island, the other was the appearance of surpluses of eggs in these areas.

In other regulated commodities there were a number of problem areas in 1975, most of which came about from developments beyond the control of the primary producer. A series of strikes early in 1975 effectively tied up substantial stocks of turkeys in cold-storage facilities, adding to the difficulties attached to efforts at reducing an unusually heavy inventory. With some financial assistance from the Government of British Columbia these stocks were substantially reduced to manageable proportions.

Elsewhere on the farm front the tree fruits and vegetable industries encountered a few marketing problems, but these were largely of a temporary nature. The Government's price freeze, for example, hampered somewhat the movement of late vegetables and potatoes but did not create undue hardship.

Among the berry crops, blueberries were still difficult to move at other than distress prices during most of the year, but by late autumn there were indications of a firmer market tone. Strawberry and raspberry sales to the processing industry were reduced to the point where the growers, with Government assistance, turned to Ottawa for some measure of relief from the inroads of lower-priced competing product from other sources. When no material aid was seen to be forthcoming from the Federal authorities, many growers elected, again with Government assistance, to sell direct to consumers on a "U-pick" basis.

The mushroom industry continued to face stiff competition from Asian sources of the canned product, but by means of a consistent marketing promotion campaign were able to increase sales of a steadily increasing production on the fresh market.

Grape-growers met with strong buyer resistance from domestic wine manufacturers in 1975 and were obliged to accept somewhat lower returns, particularly for the Bath variety. This situation pointed to the need for a reappraisal of the production pattern in the years ahead, with greater emphasis on production of those varieties best suited to wine manufacture.

Elsewhere, 1975 proved to be a reasonably profitable year in the regulated sector but, as in all parts of the economy, primary producers became increasingly aware of the eroding effects of monetary inflation. On the one hand they again felt the impact of rising costs of virtually all input items, on the other, a growing resistance by consumers to higher prices at the retail level, coupled in many instances with the availability of competing products from lower-cost sources.

FOOD PROMOTION PROGRAM

The Food Promotion Division of the Marketing Branch has as its main function, to promote the consumption of British Columbia agricultural products. This is done with the co-operation of commodity associations in such activities as direct media advertising, food preparation demonstrations, recipe sheets, printed circulars, point-of-sale promotion, informational audio-visual kits in educational institutions, and by personal contact.

Over 2.5 million recipe sheets were printed during the year and distributed through food retail outlets to consumers. The series was expanded to cover 22 individual British Columbia food products. The release of many of the sheets coincided with the product being available on the fresh market. In the three-year existence of the program, response to the recipe sheets was greatest during 1975.

During the year, two mobile demonstration units operated from May 14, 1975, to September 15, 1975, inclusive. A total of 142 days of demonstrations were conducted, of which 24 were at fairs and exhibitions and another 118 at retail stores. Five fairs and 58 stores were visited, making a total of 63 separate areas of operation during that time period.

Various media were used throughout the year in the promotion of British Columbia food products. Every Thursday morning on the CTV network, Mona Brun, a well-known Vancouver television personality, presented a 15-minute cooking demonstration using British Columbia-grown foodstuffs on the Jean Cannem Show. Recipe sheets were promoted on the show relating to the particular food topic being discussed.

Radio and newspaper advertisements were placed on a Province-wide and regional level as deemed necessary.

A special ad promoting the mobile demonstration trailers was placed in 43 individual newspapers. Also, newly designed queen-size exterior bus signs, representative of many of the products of British Columbia agriculture, were displayed prominently on the exterior of 50 buses in Vancouver and Victoria.

Direct consumer communication played a vital part in the over-all promotion program. As in previous years and in addition to the trailer and television work, the Branch took part in several store/mall food demonstrations in the Vancouver area where British Columbia fresh products were displayed, sampled, and recipes distributed. During the year, an average of 250 requests per week were received for information and material about food. These inquiries came by telephone, mail, and personal visits. Every request is answered as fully and promptly as possible.

The "Country Fair Stage Show" at the Pacific National Exhibition was continued for a second year and was well attended, generating a strong interest in British Columbia food products.

Close communication with the agricultural industry was maintained. A monthly newsletter to over 500 producers, processors, retailers, and Government agencies, itemized activities of the Marketing Branch in reference to food promotion. However, personal contact with these groups was the vital key to the success of the year's work.

A number of new programs were introduced to create additional consumer awareness of British Columbia-grown food products. A new advertising theme entitled "Do Yourself a Flavour" was initiated in April 1975. A touring display booth entitled "More Than Trees Grow in B.C." received recognition at numerous locations. Placemats were printed and distributed to British Columbia restaurants. Nine slide presentations on various selected agricultural crops were produced to acquaint consumers with the aspects of raising that crop, processing it, and preparing it for the table.

The Branch has begun groundwork on a co-operative advertising system whereby agricultural commodity groups would promote their products in a co-ordinated effort and realize savings in promotional costs. Statistics are being compiled, also as a necessary base, on which to plan effective advertising campaigns and evaluate current prices and product inventories. These new projects will continue to be developed in 1976.

THE BRITISH COLUMBIA MARKETING BOARD

Following proclamation of the amended *Natural Products Marketing (British Columbia) Act* late in 1975 the British Columbia Marketing Board was reconstituted in February with the appointment of five members. These were George R. Winter, Department of Agricultural Economics, University of British Columbia; George J. Okulitch, retired, Vancouver; Barbara B. Wallace, housewife, Ladysmith; Russell C. Freeze, farmer, Falkland; and David W. Mossop, barrister, Vancouver. All were appointed for a period of one year, effective February 11, 1975.

Dr. Winter was named chairman and Mr. Okulitch, vice-chairman, the latter assuming the chairmanship in June when Dr. Winter tendered his resignation. Barbara Wallace was then named vice-chairman.

In its supervisory function the Board reviewed orders of each commodity marketing board to ensure not only that none exceeded the legal powers granted to it, but to satisfy itself as well, that all such measures were framed within the bounds of fair play for all concerned.

As a part of its orientation program, the Board visited nine of the 10 commodity marketing boards established under the Act, thereby gaining a valuable insight into the workings of

each. Plans to visit the tenth, the British Columbia Tree Fruit Marketing Board, were postponed to a later date when other matters intervened.

The first of these arose in May with the refusal by the Province's poultry processors to accept turkeys from growers in the face of an alarming build-up of storage stocks. In a series of meetings with both the processors and the British Columbia Turkey Marketing Board a compromise solution was devised by the Provincial Board, and the regular flow of birds to market resumed. This was achieved by the development of an inventory reduction program, with assistance from the Department, and the introduction of a quality control system embracing penalties for the production of undergrade birds. By the year's end the stocks on hand had been sharply reduced to manageable proportions and the general quality of product substantially improved.

Under provisions of the amended Act, any person who feels injured or aggrieved by action of any marketing board may file an appeal with the Provincial Board, and the first of these took place in August when an Abbotsford farmer protested a ruling of the British Columbia Egg Marketing Board.

The case involved the sale and transfer of a substantial egg marketing quota from premises about to be dismantled in Delta to a proposed new location in the Abbotsford area. The appellant's application to the Egg Board for approval of a licence to him as the transferee had been refused.

At this point the Board engaged Vancouver barrister D. A. Sutton as counsel in appeal cases.

This first appeal was heard in Matsqui early in October, with the chairman, Mr. Freeze, and Mr. Mossop presiding. The Board found in favour of the appellant, following which the proposed transfer was concluded.

A second appeal was lodged on behalf of five central British Columbia egg producers whose application for exemption from all regulations of the Egg Board had been rejected by the latter. The two-day hearing took place in Prince George late in October, with the chairman, vice-chairman, and Mr. Mossop presiding.

In this instance the action of the Egg Board was upheld, whereupon the appellants launched reappeal proceedings as provided in the covering legislation. Since this legislation also provides that those Board members who sat on the original appeal may not take part in any subsequent reappeal, and since a minimum of three members are required in reappeal hearings, it became necessary to appoint additional members to the Board to satify this need. When this had not been accomplished by the end of the year the reappeal hearing was postponed to a later date.

Following her election to the Legislature in December, Mrs. Wallace submitted her resignation, thus reducing the Board membership to three. Also in December, as required, the Board approved the designation by a number of commodity marketing boards of their respective agencies.

Altogether, the Provincial Board convened on a total of 48 days during the period from its establishment until December 31. In that relatively brief span it has earned a reputation for both firmness and fairness in the field of regulated marketing in British Columbia.

STATISTICS

The Statistics Program operated under Policy Development and Planning during the past year. A statistician was appointed in May and work has focused on liaison and communication with Statistics Canada and Agriculture Canada toward co-operative improvement of the agricultural statistics system.

A set of agricultural reporting regions was established which are compatible with the geographic composition of British Columbia agriculture, census subdivisions, and Provincial resource management regions. Such regions will

facilitate over time a move to collection and reporting of agricultural statistics by Federal and Provincial agencies on a sub-Provincial basis.

Substantial progress was made during the year toward assembly of existing historical statistics on British Columbia agriculture into a handbook format. Statistics on resource use, commodities, and farm finances are being assembled as a ready reference for those interested in the agricultural industry.

Research was undertaken into the quality of data secured under several field crop and livestock surveys and discussions are under way with Statistics Canada to determine the feasibility improving the reliability.

An analysis of prepared feed and feed ingredient prices in British Columbia was conducted and a Feed Grain Supply Security Study in co-operation with the Canadian Livestock Feed Board is in progress.

Poultry

The problems and difficulties experienced by the poultry industry in 1975 were mainly in the area of marketing and were due primarily to sections of the industry attempting to instil smooth operation of the national marketing schemes. The Canadian Egg Marketing Agency (CEMA) continued to have problems which brought it close to abandonment. However, a new agreement drawn in April 1975 and agreed to by all parties, restructured the Agency and at year-end seemed to be overcoming most difficulties. The Canadian Turkey Marketing Agency appeared to have little difficulty in 1975 and, although a Canadian Chicken Marketing Agency has been discussed, there has been no formal agreement reached.

Cost of production of eggs, chicken, and turkey continued to increase; however, feed costs, a major item, remained at about the same level as in 1974. Average prices paid to producers for these products increased slightly for chicken and turkey but declined for eggs.

The staff of the Poultry Branch planned and supervised a broad range of projects in all areas of poultry production at the Poultry Test Station to demonstrate and obtain information pertinent to poultry production in British Columbia. The Poultry Test Station has proved to be an extremely valuable asset to the extension staff of the Branch. It provides a means of problem-solving and demonstration of techniques to the industry without excessive cost to Government. The test station in the period December 1, 1974, to November 30, 1975, returned $92,275.91 to Provincial revenues from the sale of poultry produce.

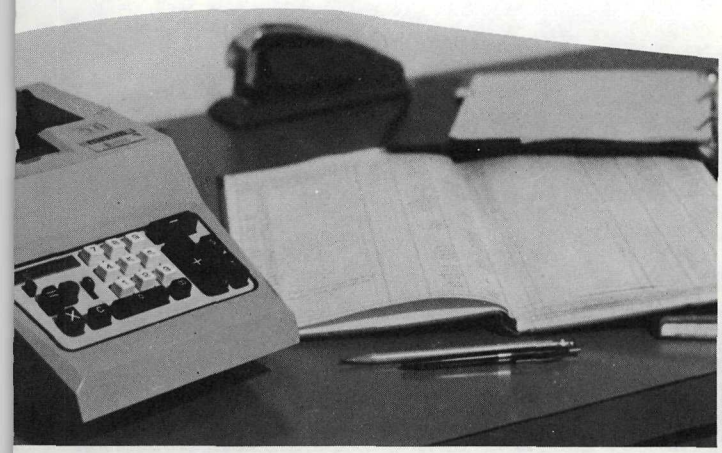
The Poultry Branch staff members worked closely with the Farm Income Assurance Branch to develop the models used and the terms of Farm Income Assurance for two products in the poultry field. These were programs for the egg-production industry and the broiler-breeder industry, both of which were implemented in 1975.

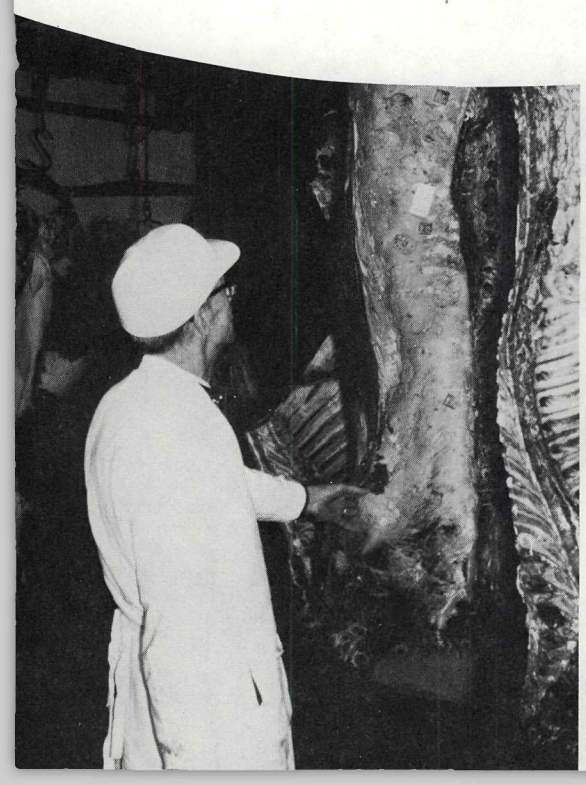
Disease problems of poultry are always a major production factor in British Columbia largely because of the high concentration of poultry in the Lower Mainland. The Poultry Branch staff works closely with producers and with the Veterinary Laboratory in monitoring poultry diseases and establishing programs to control outbreaks.

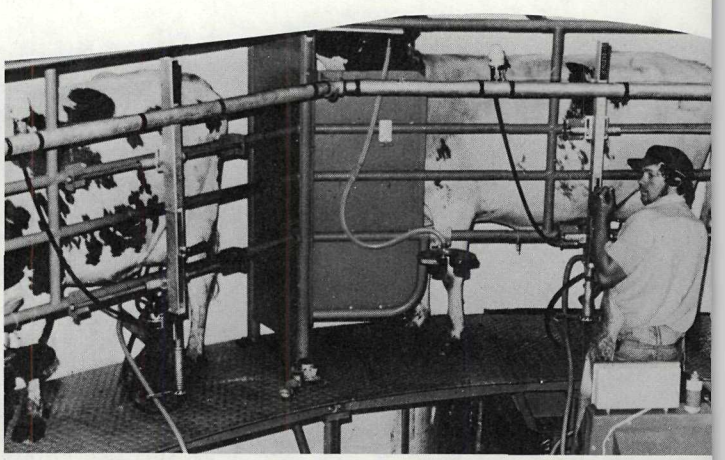
The Poultry Branch staff is composed of specialists in the fields of egg production, chicken meat production, turkey meat production, and disease of poultry. As such, they work closely

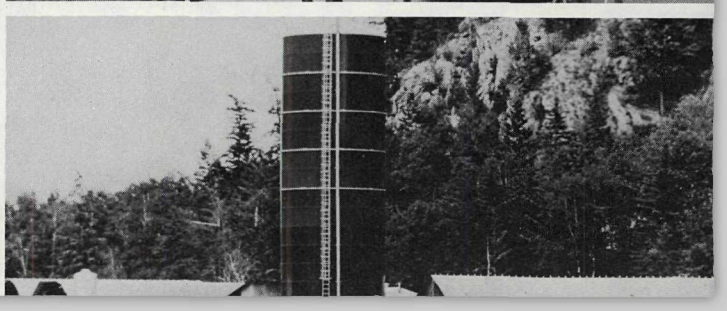
with the poultry production community of British Columbia to disseminate information derived from experimental projects and research. To accomplish their aims, the staff not only makes direct producer visits, but also attends meetings of producer groups and organizations and maintain a liaison with the various marketing boards.

SPECIAL SERVICES









SPECIAL SERVICES

Engineering

Engineering advisory service expanded in 1975 through an increase in staff in the Okanagan and the opening of a new field office in Prince George. The advisory service covered most aspects of on-farm engineering needs—drainage, irrigation, farm buildings, waste management, farm mechanization, and land development.

Farm drainage system design continued to be in strong demand with planning assistance being provided on nearly 5,000 acres. Much of the funding was provided under the *Agricultural Land Development Act* (ALDA). Cost-benefit data was collected on the ARDA Drainage Research Project, a project designed to illustrate the benefits of improved water control.

Irrigation feasibility studies were carried out for 73 farms and 112 plans, prepared by commercial designers under the ALDA program, and were checked for adequacy. Irrigation seminars involving 149 farmers were held across the Province to promote the basic principles of adequate irrigation. Farmers attending these seminars represented approximately 8,626 acres at a potential equipment expenditure of $2 million.

The farm structures service included the provision of individual building plans to farmers who remodelled or built new livestock housing facilities in 1975. There were 245 of these requests at a potential expenditure of over $4 million.

The Branch was active in developing guidelines and technical information on the management of agricultural wastes. Advice was provided to upgrade waste handling systems.

To ensure that the agricultural exemption under the *Pollution Control Act* is maintained, a regulatory program, effective in all areas of the Province, was developed whereby the poultry, swine, dairy, and beef producers police their own pollution problems through a system of sanitation committees.

With the addition of another engineer, the Farm Mechanization Program was expanded and now covers the development of a wide range of items, including range renovation equipment and machine combinations for harvesting, storing, and feeding forage.

To assist in answering design and production problems, a number of applied research and demonstration projects were carried out by the Branch. Notable among these were the projects associated with providing a solution to milk production losses due to tingle voltages in milking parlours and the development of a range seeder.

Branch personnel, in conjunction with other Department staff, were instrumental in the emergency evacuation of livestock during the heavy flooding of the Sumas Prairie near Chilliwack in early December 1975. About 1,800 animals were moved to safer areas from 25 farms covering 6,500 acres of flooded farm land.

Several special assignments were handled in 1975, including detailed drainage, irrigation, and farm building plans for the Property Management Branch; preliminary plans for B.C. Livestock Co-op's $1 million cattle sales

facility; and cattle handling facilities for community pastures. Others included feasibility or assessment reports on topics such as "Utilization of Waste Heat from Hat Creek Power Generating Plant" and "Waste Handling and Treatment Implications of Proposed Okanagan Poultry Processing Plant."

Dairy

Milk production surged to 1,086,000,000 pounds for a 6.5-per-cent increase over 1974. The Provincial dairy herd increased by 7,000 cows to a total of 90,000 head. The number of approved dairy farms levelled at 1,339, a decline of 26 compared to a decrease of 44 during 1974. The rate at which producers are leaving the industry has slowed considerably since the development of the Dairy Income Assurance Program.

Fluid milk sales declined for the first time in recent years. The reduction in actual sales amounted to 1 per cent for the year, but registered a 6-per-cent decline for the month of November. Increased supplies of milk for industrial purposes resulted in a butter production increase of 61 per cent and a cheddar cheese increase of 24 per cent.

Six-year Production/Fluid Utilization Summary for Milk Board Areas

Year	Approximate Millions of Pounds			Per Cent of Production	Per Cent of Quota
	Production (Qualifying Milk)	Quota Milk	Fluid Sales		
1970	752	563	489	65.0	86.8
1971	773	595	507	65.6	85.3
1972	789	605	528	66.9	87.4
1973	795	618	550	69.1	88.9
1974	824	656	575	69.7	87.6
1975	873	673	571	65.4	84.8

Farm cash receipts from dairying are estimated to be in excess of $105,000,000, up from $92,154,000 in 1974. A portion of this increase is from Federal subsidy payments on milk for industrial purposes under the comprehensive Milk Market Share Program; 1974, $4,937,000; 1975, $8,000,000 (estimated). The impact of the reduction in the Milk Market Share Program, a Federal program that provided $2.66 per cwt. to eligible farmers for industrial milk, was evident in November statistics, as the comparative monthly production figures indicated that the increase had levelled off to 2.8 per cent for that month.

Amalgamation of the Fraser Valley, Okanagan-Kootenay, and Cariboo-Central areas of production into the British Columbia Mainland area of production provided for more equitable sharing of the fluid milk market by Mainland farmers.

The levy paid by producers into the Dairy Products Promotional Fund was increased to 3 cents per cwt. to allow for more input to dairy-product advertising.

Dairy farm and plant inspections, aided by the analytical services of the Dairy Laboratory, continued to ensure the consumer of a high-quality product.

DATE Program

The DATE Program, "Demonstration of Agricultural Technology and Economics," continued to support staff-supervised projects aimed at increasing net farm income.

A large-scale insect biological control project was activated to minimize the number of sprays required for insect control in the Cawston-Keremeos area. The project is based on the production and distribution of sterile male codling moths. The males are released in the orchards to mate with the females, which only mate once in their life cycle; thus the codling moth population is reduced, as is the need for chemical sprays. Growers are providing operational funds, with the Department and ARDA providing the codling moth rearing facilities. Agriculture Canada is involved in a significant technical input as the technique was perfected at the Summerland Research Station.

Another study of substantial interest to Okanagan farmers involved detailed mapping of frost zones. The maps can be used in conjunction with frost-control techniques developed in an earlier DATE project.

Projects related to the improvement of range land in British Columbia continued, primarily, in the area of developing and assessing equipment for range seeding. Seven different sites in the Southern Interior were planted with crested wheatgrass to compare fall and spring seeding techniques. These projects are aimed at making more efficient use of the 2½ million acres of range land in the Province.

Computerized decision aids to assist farm managers were made available at several locations, along with a publication titled *Taxation and the B.C. Farmer.* The decision aids allow a farmer to utilize computer programs, stored in Ontario and accessible by telephone, to select optimum feed rations, to determine interest on long-term loans, etc. The publication is designed to acquaint farmers with the fine points of financial planning related to estate taxes and succession duties.

A rapid system for Little Cherry detection is now being investigated in one DATE project. If the presence of Little Cherry can be detected more rapidly than is now the case, the infected trees can be removed earlier to contain the spread of the disease. Little Cherry has the potential to wipe out the cherry industry in the Okanagan.

In order to reduce the need for importation of bees into the Province to replace those killed over the winter, a specially designed building has been erected in the Fraser Valley. The environment in this structure is totally controlled to allow for the overwintering of bees. These bees will be removed in the spring and used to start new colonies.

In total, some 37 projects have been supported by the DATE program.

Entomology

The Branch continued to provide services in the area of insect and pest control and to enforce policies designed to curtail any irresponsible sale or application of pesticides.

In 1975, agreement was reached between the B.C. Department of Agriculture, Agriculture Canada (Research Branch, Summerland), Agriculture Canada (ARDA), Regional District of Okanagan-Similkameen, and fruit-growers of Cawston-Keremeos to construct and operate additional facilities for the rearing and release of sterile codling moths, and to oversee this biological control project for three years. The spray program required prior to release of the moths was pursued in 1975 and construction of the rearing facility started. Moth release will begin in Cawston-Keremeos in the spring of 1976.

Several Okanagan orchards were involved in a closely monitored pear pest-management program. The populations of four species of insects and three species of mites were monitored to establish economic parameters and to determine the effects of the spraying program. Results indicated that a similar program based on monitoring of pest populations, is likely to be feasible on a commercial basis. At least another year is needed to refine techniques.

The study of mites on strawberries in the Fraser Valley continued for the second year. This latter study indicated that earlier pre-harvest treatment would result in greater control.

The inspection and certification program of nurseries for pine shoot moth continued in Coastal areas. Testing of control chemicals resulted in locating a more effective material for control of pine shoot moth.

More emphasis was placed on starling and mouse control in the Okanagan. Some 24,450 birds were trapped and destroyed. Projects were initiated on bird marking, roosting areas, bait testing, and chemical repellants. Several new chemicals were tried as mouse baits.

All proposed aerial spraying for mosquito control required an investigation of population levels prior to assessing the necessity of aerial treatment. Several new possible biological control agents such as nematodes, growth retardants, and predators are being tested, together with chemicals for larval egg control.

The B.C. Interdepartmental Pesticide Committee reviewed approximately 190 proposed pesticide (mainly herbicide) projects and either allowed them (1) to proceed under certain basic requirements, (2) proceed with amendments or change in materials or treatment methods but still adhering to other requirements, (3) rejection. Monitoring of certain of these projects was carried out by Agriculture, Fish and Wildlife Branch, and (or) Environment Canada.

The Pesticide Laboratory completed 915 analyses for pesticide residues. Of these, 118 were for Agriculture, 300 for Fish and Wildlife, eight for B.C. Forestry, 134 for B.C. Pollution Control Board, 319 for Environment Canada, two for B.C. Health, and 34 for private vendors.

Hundreds of insects were identified and controls recommended. Extension programs and grower meetings continued to constitute a major portion of Branch activity.

Many courses were presented throughout the Province for those engaged in the sale and use of pesticides.

Farm Vacation Program

The British Columbia Farm Vacation Program, administered by the Youth Development Branch, makes available a listing of farm families that are prepared to host vacationers. The intent of this program is to encourage a closer view of food production techniques by urban residents and to provide another avenue of income for farmers.

In 1975 over 280 people took vacations on British Columbia farms and ranches. Vacations averaged five days for a total of 1,395 vacation-days taken.

The program was very well received, both by the vacationing public and by the farm and ranch hosts. It was promoted on television, through the press, radio, tourist information booths, community centres, and libraries. An increase in farm vacationers and farm hosts is anticipated in 1976.

Plant Pathology

In 1975 the Plant Pathology Branch provided advisory and regulatory services to control plant diseases.

Disease diagnostic services, available at Victoria, Cloverdale, and Kelowna, handled in excess of 1,000 specimens.

Agricultural education and extension is provided to the public. Staff participated at meetings, conferences, field-days, and seminars, as well as preparing publications containing detailed descriptions of the more serious diseases together with control recommendations.

Plant disease surveys were carried out where serious diseases occurred. In the Okanagan, the survey for little cherry disease was continued. At the Coast, disease surveys were conducted for pear trellis rust, green and bulb onion diseases, and juniper dieback.

Applied research projects during 1975 included fungicide trials for control of onion neck rot, onion white rot, onion smut, mummyberry of highbush blueberry, cottonball disease in cranberry, pear trellis rust, downy mildew of onion, apple scab, and powdery mildew of grape.

An Onion White Rot Regulation was implemented to reduce the rate of spread of this serious soil pathogen. Under the Little Cherry Regulation, 300 additional Okanagan cherry trees were removed in 1975 in the hope of eliminating the source of the disease.

The Branch worked closely with other crop-oriented branches and Agriculture Canada on joint regulatory matters such as golden nematode control.

Soils

Soil inventory work traditionally conducted by the Branch proved to be of great value in mapping the Agricultural Land Reserves. Without this data, the B.C. *Land Commission Act* could not have been implemented so quickly and effectively.

It has now been recognized that many of the soil inventory needs of agriculture have been satisfied, whereas the demand for soil advisory services is increasing. In order to respond to this demand, the Branch began to concentrate more attention to advisory services in 1975. Along these lines, an agreement was signed to transfer the soil inventory function to the Environment and Land Use Committee (ELUC) Secretariat.

In response to requests from resource departments, reconnaissance surveys were undertaken in Prince Rupert, Terrace-Kitimat, Morice Lake-Ootsa Lake, East Kootenay, Central Vancouver Island, Nass River, and Kluskus. Initial field mapping is essentially complete. In 1975 a total of 14,655,000 acres was mapped (soil-landform). Agriculture and forestry capability ratings were determined for 10,355,000 acres. Special emphasis was placed on distributing and presenting the survey information in a manner that allowed for resource planning and management. Several of the mapping projects were done in co-operation with Agriculture Canada and Environment Canada.

Approximately 1,400 samples (entailing about 20,000 separate chemical analyses and 1,000 physical analyses) were analysed by the soil characterization laboratory at Kelowna.

Advisory services were provided in the South Interior area and the Lower Mainland area. Drainage recommendations on tile spacing were provided on 25 farms covering 2,002 acres, up approximately 600 acres from 1974.

Irrigation advisory services were provided to growers. Irrigation water-storage capacities were determined for more than 1,100 soil samples emanating from irrigation workshops. Growers were advised on a variety of other soil problems.

Technical service was provided to the B.C. Land Commission in the form of on-site inspections and reports on properties under appeal to the Commission. Three staff conducted more than 150 such inspections.

Veterinary

The general incidence of disease continued low in the livestock population of British Columbia.

The Veterinary Laboratory fulfilled its two roles of diagnostic veterinary medicine and disease investigation. Persistent death or production losses were investigated in co-operation with staff of other branches. In total, the diagnostic caseload amounted to 5,600 submissions, down from 5,800 in 1974 due to a reduction in calf submissions. The Virology Section has continued to develop in order to provide a more useful service through improved virus detection techniques.

The Branch administers the Provincial Meat Inspection Program, which is designed to ensure wholesome meat from abattoirs in designated meat-inspection areas. At the present time, this program is active in the Lower Fraser Valley and Victoria vicinity. The seven abattoirs in these areas experienced a 66-per-cent increase in the number of cattle slaughtered in 1975. The per unit charge for inspecting carcasses was increased from $1 to $2 to offset rising operational costs.

Under the Saleyard Inspection Program, field veterinarians and agricultural officers inspected animals at 12 of the 18 public saleyards operating in the Province, with the result that a total of 204,353 animals received inspection. This amounts to 84 per cent coverage of all cattle sold through saleyards in British Columbia.

Businesses selling veterinary drugs or medicated feeds were required to have a trained person on the premises. A veterinary drug dispensing licence was introduced as a requirement during the year to establish the necessary level of training. A total of 217 persons wrote the licensing examination.

Several meetings were held with the British Columbia Cattlemen's Association to streamline the inspection service for minimizing livestock rustling in the Province. Changes will be implemented in 1976 and will result in a lesser dependence on consolidated revenue for brand inspection support. Brand inspection fees were increased from 15 cents to 30 cents per head.

The number of cattle moved in 1975 amounted to 236,451 as compared to 172,620 in 1974. The most significant increase was in the Williams Lake area, where stock shipments increased from 12,502 in 1974 to 41,328 in 1975. Also, stock shipments more than doubled in the Cranbrook area, from 5,373 to 11,500.

The *Stock Brands Act* was amended to provide for the compulsory identification of abandoned horses in areas of the Province designated by regulation. This amendment was in response to an SPCA request to provide a means of identifying abandoned horses in the northern regions of the Province.

Youth Development

4-H is an informal educational and recreational program which has as its over-all objective the personal development of young people. Membership is open to young people from 9 to 19 years of age. Clubs are formed around a wide variety of projects with leadership provided by volunteer adults. The Youth Development Branch enrolled 4,428 and 843 leaders in 284 clubs in 1975.

Members participated in a wide variety of travel and exchange programs and experienced an increased awareness of Canada and the Federal Government, the Canadian legal system, and 4-H on a national and international level.

The second annual Provincial 4-H Leaders Conference was held at Naramata in 1975. Twenty-seven 4-H leaders from throughout the Province took part. This conference gives

volunteer leaders the opportunity to exchange ideas on 4-H and to benefit from discussions on developing leadership skills, working with young people, and many others.

Through activities such as camps, conferences, activities at fairs, travel programs, and club and project work, the 4-H program is helping to develop young people with positive attitudes and definite goals.

In 1975 the Youth Development Branch assumed responsibility for the co-ordination and development of the International Agricultural Exchange Association (IAEA) in British Columbia. This program enables young people to travel to many different countries where they can work on farms or ranches for up to six months. The IAEA combines the opportunity to learn about agriculture and homemaking in a different country while living with a host family.

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