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## LIVESTOCK AND POULTRY SECTOR

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In 1978, farm receipts from the sale of livestock and livestock products, including dairy products, poultry, and eggs were \$6.6 billion or 55 percent of total cash receipts from farming operations. The other major contributor was total crops at \$4.9 billion or 41.5 percent.

In 1976, a total of 1,045 establishments engaged in one or more of slaughter, meat processing, or processing of poultry or dairy products. They employed a total of 68,318 people and paid wages and salaries of \$85 million. The total value of shipments of goods of their own manufacture was \$7.4 billion.

### Consumption, Imports, and Exports

Most of the output of Canada's livestock and poultry sector goes into domestic consumption. In 1978, per capita consumption of beef was 45.8 kilograms, veal 1.8, pork 26.2, mutton and lamb 0.8, poultry 21.7, butter 4.5, and eggs 18.2 dozen. During the 1970s, per capita consumption of beef has increased while consumption of eggs and butter has declined.

Expenditures for food account for about 15 percent of all personal expenditures on consumer good and services. About 48 percent of the expenditures for food to be prepared at home is on products of the livestock and poultry sector.

In recent years, there has been a very substantial increase in meals eaten away from home. By 1976, the eating place share of total personal food expenditures was 26.6 percent, and some industry sources estimate that it is now 33 percent.

### Distribution

Except for the Montreal market for beef where wholesalers have a significant role, most of the food produced by the livestock and poultry sector goes direct from processor to retailer or food service outlet.

Retail stores are the principal source of food for Canadian consumers. Their key function is to make the food available to the consumer in small quantities. Fresh meat is cut and packaged in appropriate sizes and weights and eggs are packed in dozens. Foods already in consumer type packages such as bacon, sliced meats, and dairy products are removed from the shipping cartons or containers, priced, and placed on the shelves for selection by consumers. Some retailers also have their own warehousing, and a number have integrated back into processing of meat and dairy products.

About 60 percent of the food retail business is done by chain stores, including convenience stores. About 26 percent of the business is done by voluntary groups of independents, and the remainder by unaffiliated independents.

The trends in retailing in recent years have been to larger stores, concentration of business in the chains and voluntary groups, and vertical and horizontal integration. The major merchandising tool used by food stores is newspaper advertising of specials to draw customers into the store. No brand name grocery products at lower prices have recently proved to be popular with consumers, but this tool has not been used extensively with products of the livestock and poultry sector.

The food service industry, commonly known as HRI (hotels, restaurants, and institutions), is enjoying remarkable growth. Increased mobility, higher discretionary income, greater leisure, and modern life styles have caused this change. In the fast food outlets, the main livestock and poultry sector products sold are hamburger, steak, and chicken. Supplying the food service industry is

a conundrum for Canadian cattle producers. The bulk of fed cattle marketed now carries a moderate but adequate finish for the eat-at-home consumer. The same consumer eating out at a fancy restaurant expects beef with much more finish, which may be imported from the United States. The next day that same person eats at a fast food outlet. The best sources of meat for that market are dairy cow beef, grass fed cattle, or imported boneless beef.

### Slaughter and Processing

Operations at the slaughter and processing level for products of the livestock and poultry sector vary considerably in complexity and magnitude. Processing and distribution of milk and other dairy products is complicated. Beef is simple, but volume is very large. Pork is somewhat more complicated than beef, with much processing. Most poultry involves mainly slaughter, and eggs require only selection and packaging.

Dairy products are processed by specialized firms, some owned by large retailers. The highly perishable items such as fluid milk, cream, yogurt, and cottage cheese must be produced and marketed within a matter of days. Butter and cheese are less perishable and can be stored under refrigeration. Milk powder and evaporated milk are shelf stable.

Cattle and calves, pigs, and sheep and lambs are slaughtered in meat packing plants. The slaughtering and processing of red meats is Canada's largest food industry, and in 1976 it ranked fourth among major manufacturing industries in value of shipments. In that year, there were 467 separate establishments, and 33,237 employees. Total wages and salaries were \$439 million, and the value of shipments of own manufacture \$4.0 billion. In the same year, the value of shipments of own manufacture by each of the three leading industries was: motor vehicles \$7.2 billion, petroleum \$6.7 billion, and pulp and paper \$6.0 billion.

All red meats and poultry meat for interprovincial or international transit must be federally inspected at the place of slaughter and point of origin. Also, the major retailers require that all the meat they buy come from federally inspected operations. Meat inspection is carried out by trained government lay and veterinary inspectors. Meat destined for intraprovincial transit may be inspected under authority of provincial governments.

The evaluation of quality of meat and poultry is routinely done through a grading system administered by the federal government. Additional selection to meet brand specifications is done by the processors.

Cooperatives have an important role in processing of dairy products. In 1977, a total of 113 establishments owned by 52 cooperatives had sales of over \$2.2 billion, which represented 60.7 percent of total industry sales of milk and milk products in Canada. In the same year, 11 poultry cooperatives had sales of poultry and eggs of \$113 million--22.9 percent of total industry sales. The activities of 21 livestock marketing cooperatives with sales of \$8.7 million were confined mainly to the assembly and sale of livestock.

### Farmer's Marketing

Except for the marketing of cattle, calves, sheep, and lambs, farmer's marketing in the livestock and poultry sector is largely through marketing boards and agencies under authority of provincial or federal legislation. The primary purpose of such boards and agencies is to improve income and stabilize prices for agricultural producers. Critics of the boards and agencies argue that by their actions some boards tend to reduce supply, cause waste and inefficiencies, and raise prices to consumers.

There is considerable difference in the powers of the various boards and agencies in the livestock and poultry sector. Milk marketing boards determine

prices to producers for all milk delivered to market. This directly affects consumer prices. Poultry product marketing boards can set minimum sales prices for producers and establish marketing quotas. The Canadian Egg Marketing Agency sets a national production quota which is shared out to provinces and thence to producers. Pricing is based on a cost of production formula. Pig boards organize pig marketing through teletype or other selling arrangements.

Cattle producers have resisted the trend to marketing boards, and maintain an open system. Canadian beef competes with the United States in the North American market, and price is determined by the larger United States market. Three main channels are used—direct to packers, through public stockyards, and country auctions. Sales direct to packers may be made either on a live weight or rail grade basis using sealed bids or private treaty. Sales through public stockyards and country markets are generally by auction, on a live weight basis.

## Production

### Dairying

Dairying is a major part of Canada's livestock and poultry sector. About 13 percent of all farm receipts are from the sale of dairy products. In the East, they account for over 21 percent. In addition, the dairy herd provides an estimated 25 percent of the beef produced in Canada. As of January 1, 1979, there were 1,870,500 milk cows on Canadian farms.

About 7.7 million tonnes of milk are produced each year. Production is divided into two main types, fluid and manufacturing. Fluid is characterized by high production in large, efficient herds, the latter by generally smaller herds and more seasonal production.

Dairy production is based primarily on forage grown largely on land not generally suited to other crops. Such feed provides for maintenance, replacement, and a modest output of milk. For higher levels of production, grain and supplements of protein, vitamins, and minerals are fed. It has been estimated that each dairy cow uses the output of 0.4 hectares of land for grain crops, 0.8 hectares for pasture, and 1.2 hectares of forage for hay and silage, on the average. The total dairy industry land base is estimated at 5.2 million hectares.

### Cattle and Calves

Beef is the largest segment of the Canadian livestock and poultry sector. Farm cash income from sale of cattle and calves in 1978 amounted to \$3.0 billion or 24.9 percent of total farm cash receipts. As of January 1, 1979, there were 12,328,000 cattle and calves on Canadian farms.

Canada has a major resource base of rangeland, some 20 million hectares in the West and two million in the East. Seventy to eighty percent of the beef cow herd is maintained in the West. Forage accounts for 80 percent or more of the total feed required for beef cattle. Beef production is an efficient means of converting these forage resources and some agricultural wastes into high quality food products. In addition to the rangelands, an estimated 2.4 million hectares of hay, grass silage, and maize silage, and about 1.6 million hectares of land for cereal production are utilized for producing feed for beef cattle.

Though a significant number of producers have both cow-calf and growing-finishing operations, many tend to specialize. The output of the cow-calf operators is weaned calves of 180-230 kilograms which may be sold as feeders or maintained on a forage programme to go into the feedlot at a later date. The cow-calf segment depends upon inexpensive grazing land and low cost feed.

The bulk of the feeder cattle is produced in western Canada. About 80

percent are finished to market weight in the West. The remainder are either shipped to Ontario for finishing or exported to the United States.

### Pigs

Pigs provide Canadian farmers with about 9.6 percent of their receipts from the sale of farm products. As of January 1, 1979, there were 7,495,000 pigs on Canadian farms. Historically, a large proportion was produced on relatively small mixed farms, providing an efficient market for home produced grains and a source of income. A growing percentage are now produced by large, specialized operations which buy the bulk of their feed requirements.

The three to four year production and price cycle is a major feature of the industry. As in beef, the cycle is related to lags between price and production changes, but is shorter due to the relative ease of expanding or contracting production. The cycles tend to be more erratic because in addition to the North American market influence, pig production is strongly affected by the market for barley in western Canada.

Feed grain is the major input used to produce pigs. Barley is the main feedgrain used, except in Ontario where it is maize. In 1978, pigs consumed the equivalent of about 3.3 million tonnes of barley from 1.4 million of hectares of land, and protein equivalent of 0.6 million tonnes of soybeans from another 0.4 million hectares. A large proportion of the protein supplement used is imported from the United States.

There are three main types of pig enterprises in Canada. Weaner pig producers specialize in selling weaned pigs (at about 18 kilograms and 2 months of age) to producers who specialize in feeding market pigs (about 95 kilograms and 5-6 months old). The third group, a large number of smaller and some large operators are farrow-finish operators.

During the early 1970s, western Canada enjoyed a boom in pig production due primarily to the abundant supplies of low cost feedgrain. In recent years, there has been a sharp reduction in the West, and increases in the East. The factors favouring increases in the East appear to be lack of alternative opportunities for intensive agriculture, proximity to major markets, availability of maize as feed, and, in Quebec, the absence of a marketing board. The latter permits feed manufacturers and packers to contract for pigs and gives them an incentive to make inputs of capital and management expertise.

### Poultry

Poultry and eggs are an important source of farm income, accounting for about 7 percent of cash receipts from the sale of farm products. Poultry is almost completely dependent on cereals and protein for feed. The annual feed requirement is about 1.5 million tonnes of barley and 450,000 tonnes of soybean meal, equivalent to the production of one million hectares of land. About three-quarters of this is produced in Canada, the remainder (mostly soybean meal) is imported from the United States.

Poultry production is highly specialized with primary breeders, hatcheries, flock suppliers, and producers of started pullets, chicken broilers, turkeys, and waterfowl. The trend for some years has been to fewer producers with those remaining becoming larger and much more efficient. Entry into the business is becoming more difficult due to high investment costs for land and buildings, environmental laws, and difficulty in getting production quotas from marketing boards.

### Sheep and Lambs

Sheep production in Canada has suffered a marked decline since 1950. It

contributes only about 0.1 percent of cash receipts from the sale of farm products. As of January 1, 1979, there were 420,800 sheep and lambs on Canadian farms.

Sheep and lamb production uses about 282,500 tonnes of hay or equivalent in feed or pasture. Sheep compete with beef cattle for feedstuffs and grazing land, and are considered to be competitive in initial investment and potential return. Approximately 60 percent of Canadian sheep production is in the West due primarily to the availability of feed at reasonable cost.

#### Observations

Canada's livestock and poultry sector enjoys the advantage of large land areas suitable only for pasture, particularly in the West, and large supplies of barley in the West and maize in Ontario. Production technology and knowhow compare favourably with those of other major producing countries. Disadvantages include price and income instability due to cycles and fluctuations in feed supply and costs, the relatively small domestic market of under 24 million people, a long expensive haul to market for much of the product, and a relatively harsh climate which adds to costs of production and distribution. The net result is that the sector, providing it remains competitive with the United States, will continue to grow and prosper with the general economy, but, except in times of feedgrain surplus, Canada is unlikely to be a major exporter of livestock and poultry products.