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The Agricultural Economy of

FINLAND

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SUMMARY

Agricultural production in Finland has grown steadily during the past decade, as a result not only of expanding crop area but also of increasing yields per unit of land, livestock, and labor input. As in other Western European countries, mechanization and other technological improvements in agriculture, stimulated by the decline in the labor force and Government supports and subsidies, have been substantial. Agricultural education, research, and extension services as well as farmers' cooperatives have also contributed greatly to Finland's continuing agricultural development.

Although Finland is one of the least densely populated countries of Western Europe, land in agricultural use comprises less than a tenth of the land area, making the ratio of farm population to farmland quite high. Although agriculture's relative importance in the economy has declined in recent years, more than one-quarter of the labor force was in agriculture in 1964. Finnish agriculture is limited not only by a cold climate but also by low fertility and need for drainage of most of the soils.

Since Finland obtained its independence from Russia in 1918, several land laws have been passed under which tenancy has been largely eliminated and farms have been made available to landless Finns, especially those from former Finnish territories. Over one-third of Finland's cropland is land that has been cleared and drained since independence. Despite the increase in cleared land, few farmers have enough land for maximum efficiency of operation because of the increase in the number of farms.

The average Finnish farm in 1959 contained less than 9 hectares of arable land and about 1 hectare of pasture land; it also had 35 hectares of forestland, which provided additional income and employment in winter.

Grasslands, mostly cultivated, cover about three-fifths, and grains, one-third, of the agricultural area. Principal grains are oats, wheat, barley, and rye. Other important crops are potatoes and sugarbeets; sugarbeet production has increased substantially in recent years. Most vegetables and domestically produced fruit are grown in small kitchen gardens.

Livestock production leads all farming activities and exceeds the country's requirements. Dairying is the major source of agricultural income, and hog raising, though much less important, ranks second. Poultry raising is generally on a small scale, except for some large-scale production near urban areas.

Agricultural products account for a much larger share of imports than of exports. Finland is dependent on imports for a considerable part of its food supplies, especially sugar, vegetable oils, fruit, dry legumes, and part of its bread-grain supplies. Finland also must import practically all of its

fiber, all of its tobacco, and all of its tropical and semitropical products. Most of these imports either cannot be produced in a country as far north as Finland, or can only be produced at excessive cost. Dairy products are by far the most important agricultural export.

Finland's major source of agricultural imports is the Soviet Union, with which it has a bilateral trade agreement. Most of Finland's agricultural exports are sold to Western European countries. Finland imports only small quantities of agricultural products from the United States, but their value exceeds by far the value of exports to the United States.

Finnish agriculture has substantial government support in the form of direct and indirect subsidies and trade regulations. It is also highly protected by quantitative restrictions on agricultural imports and by export subsidies, which enable surplus livestock products to be exported at competitive prices. The main objective of the agricultural subsidy program is to maintain farm income in the same relationship to the general level of income in Finland as it was in a specified base period, while not encouraging an increase in the output of the products subsidized. For this reason, output in excess of the specified period cannot be included in the agricultural income calculation. However, there has been no effort to limit production by direct acreage or other controls.

Following elections in March 1966, the parliamentary majority shifted from the Centre (formerly Agrarian) Party to the Social Democrat Party. The new coalition government has stated that it will pursue an agricultural policy aimed at gradually achieving a balance between the production and consumption of domestic agricultural production and at permanently improving the production facilities of agriculture, particularly through measures to increase farm size. But until a new agricultural income law comes into effect, the present level of subsidies to agriculture will continue.

THE AGRICULTURAL ECONOMY OF FINLAND

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AGRICULTURE IN THE FINNISH ECONOMY

With an area somewhat larger than the State of New Mexico and a population of some 4.5 million, Finland is one of the least densely populated countries in Western Europe. However, agricultural land occupies less than a tenth of Finland's total area, and the ratio of farm population to agricultural land is quite high.

Over one-fourth of the labor force is mainly engaged in agriculture, but only about one-tenth of the net domestic product was furnished by agriculture in 1963 and 1964. Most farmers do forestry work during the winter on their own farms or for others, and this work accounts for a considerable part of forestry's share in the net domestic product (9 percent in 1963).

Livestock production, mainly dairying, dominates farming activities, providing about four-fifths of farmers' cash receipts and practically all of the agricultural exports. Output of livestock products is based almost entirely on domestically produced feed.

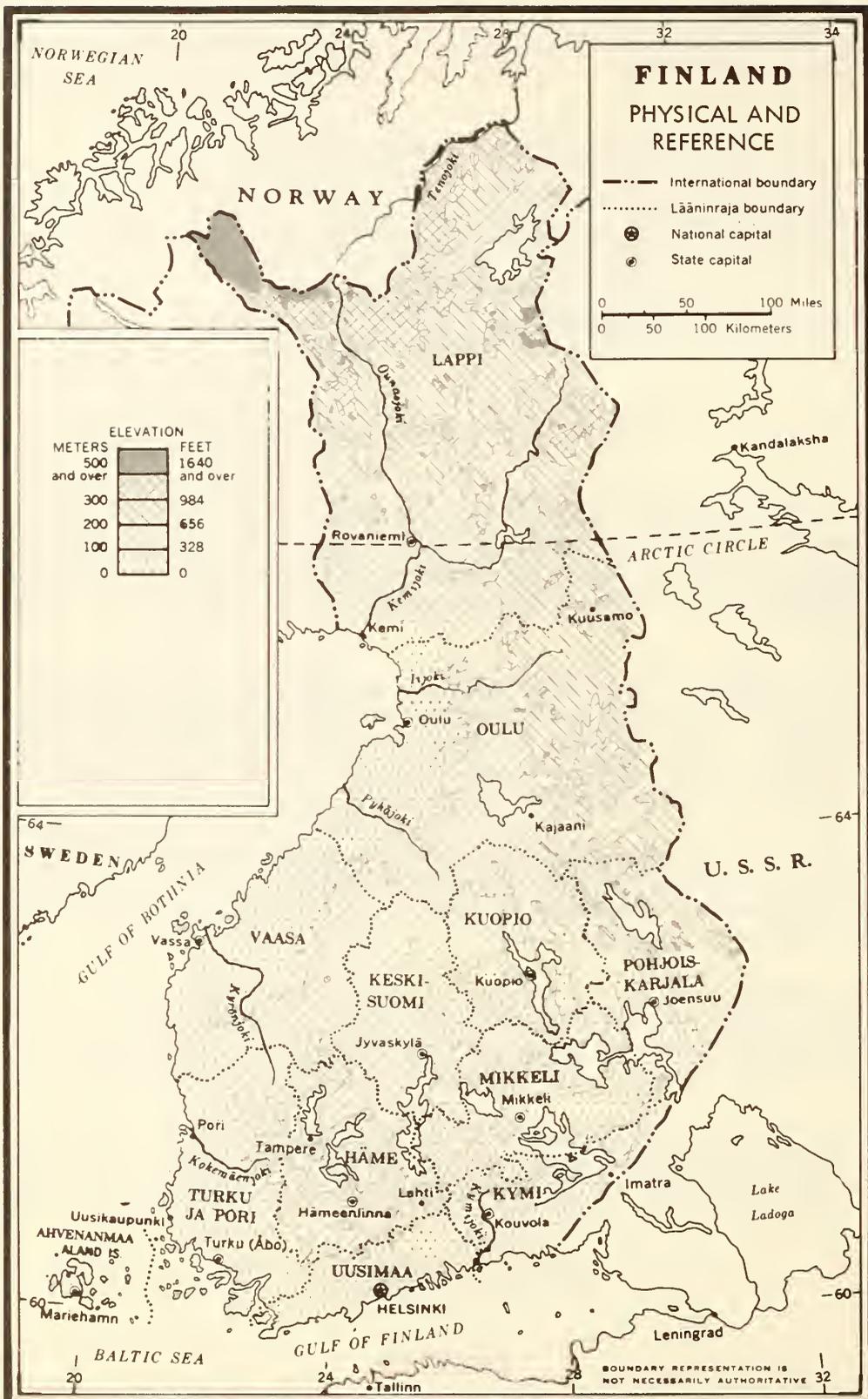
While Finland's output of livestock products is more than sufficient for its own requirements, it is dependent on imports for a considerable part of its other food supplies. It must also import all or practically all of its supplies of fibers, tobacco, and tropical or semitropical products.

Over the last decade agricultural production has risen steadily, but at a slower rate than industrial production. This rise reflects both expanded agricultural area and greater productivity through improved farm practices.

PHYSICAL ENVIRONMENT

Topography

Finland is bordered by the Baltic Sea on the south and west, by Sweden on the northwest, by Norway on the north, and by the Soviet Union on the east (fig. 1). Almost one-fourth of its area lies above the Arctic Circle.



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Figure 1

LAND AND LABOR

From the lowlands along the southern and western coast, the land rises gradually to the central plateau, some 300 to 650 feet above sea level. The surface of the land has been shaped largely by glaciers, and glacial features and deposits cover most of the country's granite substructure. There are nearly 60,000 lakes, and water accounts for almost one-tenth of the total area. Much of the land is poorly drained and peat bogs extend over large areas. Rugged hills and mountainous areas are found only in the extreme northwestern and northeastern parts of the country.

Climate

Although temperatures, modified by the Gulf Stream, are unusually mild for a country so far north, the continental climate becomes dominant with distance from the coast. Except on the southern coastal plain, low temperatures limit the growing season, and summer frosts often damage or destroy crops. In the north, clouds shut off the sun more often than in the south, a disadvantage partly offset by longer days during the growing season. A relatively short growing season does not preclude successful cultivation of Temperate-Zone crops, but the low effective temperature aggregate (the sum of daily-average temperatures in excess of 41° F. during the growing season) lengthens the time required for ripening most crops.

Annual precipitation ranges from 25 to 28 inches in the south to 16 inches or less in the north. Less rain falls in May and June, the early part of the growing season, than in August, when heavy rains sometimes delay or reduce the harvest.

Soils

Soils, mainly moraine deposits left by glaciers, are in most places so thin that the surface follows the contours of the underlying bedrock. Rock ridges and hollows filled with lakes or bogs are common. Bog soils comprise about one-third of the soils of Finland, and in some sections they occupy more than 60 percent of the land. Numerous bogs have been drained for agricultural use and better forest growth.

The soils found in the lowlands in southern and southwestern Finland are poorly drained marine clays with thin, highly organic surface layers which, though acid, are fertile. For the most part, these soils are now drained, and are the most intensively cultivated soils in Finland. Similar soils occurring along the Bothnian Coast are also used for field crops. Elsewhere in Finland, soil productivity is limited not only by poor drainage but also by low fertility and low soil temperature. On the higher land there are better drained but leached and shallow mineral soils. Although some of this land provides pasture, most of it is in forests, mainly Scotch pine and Norway spruce. In the far north are tundra soils that are capable of supporting little vegetation except reindeer browse, but some basins on the lower lying plains in the northeast contain soils that are warm enough for gardens and pasture.

Land Use

Although farms occupy over half of the country not covered by water, in 1959 only 18 percent of the land in farms was in agricultural use (table 1). Some 67 percent of the land in farms was forest; the remaining 15 percent was mainly farmsteads, roads, and wasteland (fig. 2).

Farming is heavily concentrated in southwestern Finland, where climate and soils are more favorable for livestock and crops. Elsewhere, cultivation is generally confined to clearings between wooded tracts (fig. 3). Meadow, pasture, and feed crops occupy most of the agricultural land. In southwestern Finland (which includes the Åland Islands, Turku ja Pori, Uusimaa, and Häme, together with parts of the adjoining provinces on the east), over three-fourths of the arable land is under cultivated grass or feed crops; in other parts of southern Finland this proportion is higher, and in northern Finland, even higher.

Between 1959 and 1964 some of the area which had been in cultivated grassland was planted with grains, especially wheat. The area devoted to sugarbeets and fodder roots was increased while the area devoted to potatoes and certain minor crops was decreased.

Size and Tenure of Farms

Most farms are too small for efficient use of modern technological methods. In most West European countries the number of farms has decreased since World War II, but in Finland the number has increased (table 2). The average area of arable land per farm, however, increased slightly between 1950 and 1959.

In 1959 the average size Finnish farm (excluding farms of less than 2 hectares of arable land operated largely by part-time farmers) contained 52 hectares. ^{1/} On this average farm, 9 hectares were arable; 1 hectare, permanent grassland; 35 hectares, forest; and 7 hectares, other land. In southwestern Finland, the average farm had over 11 hectares of arable land; in Vaasa, over 9 hectares; in the rest of southern Finland and in northern Finland the average farm had only 7 hectares of arable land, but more forest than in the southwest. Over half of all farms (excluding those with less than 2 hectares of arable land) had no more than 10 hectares of arable land; these farms accounted for about 40 percent of total arable land in farms.

Legislation and custom have kept concentration of ownership or fragmentation from becoming problems in Finland. Several land laws passed since Finland obtained independence from Russia in 1918 have substantially affected the size and tenure of farms. The Tenant Farmers' Act of 1918 provided favorable terms for tenants to acquire title to the farms they operated. By 1959, the proportion of farms rented was less than 2 percent. Even including the land rented

^{1/} 1 hectare is equal to 2.471 acres.

Table 1.--Land use, 1959 and 1964 ^{1/}

Use	1959			1964	
	Area	Percentage of--		Area	Percentage of total arable land
		Total area	Arable land		
	1,000 hectares	Percent	Percent	1,000 hectares	Percent
LAND IN FARMS					
Agricultural					
Arable					
Cultivated grassland					
For hay and silage	1,170	3.5	44.2	1,114	40.8
For grazing	245	.7	9.3	240	8.8
Total cultivated grassland	1,415	4.2	53.5	1,354	49.6
Cropland					
Grain					
Oats	461	1.4	17.4	470	17.2
Barley	233	.7	8.8	252	9.2
Mixed (feed) grain	27	.1	1.0	32	1.2
Wheat	139	.4	5.3	268	9.8
Rye	103	.3	3.9	102	3.7
Total grain	964	2.9	36.4	1,125	41.2
Potatoes	85	.2	3.2	71	2.6
Sugar beets	14	^{2/}	.5	20	.7
Fodder roots and forage crops	30	.1	1.1	39	1.4
Gardens	13	^{2/}	.5	13	.5
All other crops	65	.2	2.5	45	1.7
Fallow	60	.2	2.3	63	2.3
Total cropland	1,232	3.7	46.5	1,376	50.4
Total arable	2,647	7.9	100.0	2,730	100.0
Permanent meadow and pasture	278	.8	...	^{3/}	...
Total agricultural	2,925	8.7	...	^{3/}	...
Forest					
Fenced for grazing	1,563	4.6	...	^{3/}	...
Other	9,194	27.3	...	^{3/}	...
Total forest	10,757	31.9	...	^{3/}	...
Other	2,278	6.7	...	^{3/}	...
Total land in farms	15,960	47.3	...	^{3/}	...
FOREST NOT IN FARMS	11,117	33.0	...	^{3/}	...
OTHER LAND	3,463	10.3	...	^{3/}	...
Total land area	30,540	90.6	...	^{3/}	...
WATER	3,161	9.4	...	^{3/}	...
TOTAL FINLAND	33,701	100.0	...	^{3/}	...

^{1/} Because of rounding, figures do not always add to totals given here.

^{2/} Less than 0.05 percent.

^{3/} Not available.

Sources: Finland, Census of Agriculture, 1959 (8), and Monthly Review of the Board of Agriculture (7). (See Selected References, p. 31.)



Figure 2.--Typical view of Finland showing forests, lakes, and cleared land. (Photo by Marshall Cohen, ERS)



Figure 3.--Farmland in southern Finland. (Photo by Marshall Cohen, ERS)

Table 2.--Number of farms, by size group, 1950 and 1959, and area of farms, by land use and size group, 1959 ^{1/}

Size group (Hectares of arable land)	Farms		Area, 1959					Total
	1950	1959	Arable	Permanent meadows and pastures	Forest	Other		
	<u>Thousands</u>				<u>1,000 hectares</u>			
0.25 and under 2	95.0	97.3	98.1	24.2	737.3	210.1	1,069.7	
2 and under 5	99.4	101.2	343.0	62.6	2,290.3	643.0	3,338.9	
5 and under 10	88.4	101.8	732.7	80.6	3,226.1	684.9	4,724.3	
10 and under 15	38.8	44.7	543.7	42.7	1,781.7	311.6	2,679.7	
15 and under 25	23.7	25.8	486.4	33.7	1,437.6	227.8	2,185.4	
25 and under 50	9.9	9.6	315.0	19.5	840.3	123.5	1,298.3	
50 and under 100	1.3	1.3	86.6	6.3	234.9	32.1	359.9	
100 and over	0.2	0.2	39.4	2.8	123.6	22.3	188.1	
Total	356.8	382.1	2,644.9	272.3	10,671.8	2,255.3	15,844.4	
Total 2 hectares and over	261.8	284.8	2,546.8	248.1	9,934.5	2,045.2	14,774.7	

^{1/} Area figures in this table differ slightly from those given in table 1, which includes some farms with less than 0.25 hectares. Because of rounding, figures do not always add to totals given here.

Source: Finland, Census of Agriculture (8). (See Selected References, p. 31.)

to owner-operators, less than 5 percent of all arable land was rented. The most important of the four land settlement laws passed between the early 1920's and 1945 was the Land Acquisition Act of 1945. Its main purpose was to provide farms for displaced farmers from the territory Finland was forced to cede to the Soviet Union as a result of World War II. This territory included Karelia, in which 10 percent of the cultivated land of prewar Finland was located. Some 230,000 of the 420,000 refugees resettled in Finland were settled on farms. Under the settlement acts, landowners obliged to relinquish land fell into two categories. The first category consisted of the Government, owners of neglected farms, land speculators, parishes, communes, foundations, societies, and "hobby" farmers; and the second, of farmers deriving their chief livelihood from agriculture. Those in the second category had to relinquish land only when enough land could not be obtained from primary sources, and then only if they had over 25 hectares of arable land. In addition to displaced persons from the lost territory, ex-servicemen, war widows and orphans, and former laborers and tenants of partitioned farms received plots. These and other measures led to an increase in the number of small, nonviable holdings.

A new Land Use Act passed in 1958 supersedes earlier land laws. This contains provisions to improve the conditions of existing farms by increasing the land area, by amalgamation of nonviable farms, and by appropriate rearrangement of land-use patterns. It also establishes farms and building plots for those wishing to obtain their livelihood from farming or fishing. The Government obtains land for these purposes by buying it on the open market or taking it from state forests, or, under exceptional circumstances, including neglect of the land, by compulsory purchase. About half of the units created under this legislation in the first 4 years were units added to existing farms, but some completely new farms have been created in northern and eastern Finland with the Government paying up to 50 percent of the cost of clearing formerly uncultivated land.

Labor

The farm labor force declined from about 780,000 in 1950 (nearly two-fifths of the total labor force) to around 550,000 in 1964 (about one-quarter of the total labor force). In 1964, about 30,000 farmworkers were hired laborers; the rest were about equally divided between farm operators and unpaid family workers. According to estimates for 1963, in terms of total workdays, barely 55 percent of the working time of the farm labor force actually was spent in agricultural work; 10 percent was spent in forest work, and 35 percent in other work including domestic duties of women. About 20 percent of the working time was in employment off the farm (a considerably larger proportion, if housework could be excluded from on-farm work); about 70 percent of the outside employment was neither in agricultural nor forestry work. In 1960, the latest period for which labor force data by sex are available, women accounted for 42 percent of the labor force.

FARM PRACTICES

As in most Western European countries, Finnish agriculture has made substantial technological advances since World War II, stimulated both by Government supports and subsidies and by the decline in the farm labor force. Extension services, provided by numerous agricultural societies, and educational and research facilities, provided chiefly by the Government, have played an important role in the achievement of these advances.

Land Clearance and Drainage

By means of land clearance and drainage, the Finns have extended cultivation north and east from the older developed areas on the coastal plain. Almost a million hectares have been cleared since World War I. Much of the clearing has been done by the farmers themselves with Government support. Most of the rest has been done by the official Land Clearance Company, recently with machinery for large-scale clearance. The remaining areas with a potential for cultivation are largely peat bogs. This land needs not only clearance but also extensive drainage, as well as liming and soil mixing.

Over nine-tenths of the arable land in Finland is drained by open ditches. Surface drainage not only hinders field operations and requires maintenance, but the ditches cover an estimated 20 percent of cleared land, which could otherwise be cultivated. Nevertheless, underground drainage has been constructed for less than a tenth of the drained land. Tiles are most commonly used in construction of underground drainage, except for bog soils, for which board drains are more suitable.

Soil Mixing, Liming, and Fertilization

Soil mixing is a common form of soil improvement. Deep plowing of peatland mixes organic soil with underlying mineral soils (sand or clay). Some farmers transport mineral soil to peatland or spread organic material on mineral soil. The addition of mineral soil improves the soil structure and tillability of peatland, and the addition of peat to mineral soil increases its capacity to retain moisture.

Most Finnish soils require application of lime, and its use has increased noticeably in recent years. Lime is obtained chiefly in southwestern and southeastern Finland. The Government subsidizes the transportation costs of lime to regions distant from the source of supply.

Government subsidies also encourage the use of commercial fertilizers, and, since the war, there has been a substantial increase in their use. The use of nitrogen, in particular, has increased. Finland produces three-fourths of its requirements for nitrogen and phosphatic fertilizers; however, it must import rock phosphate and potash. Cattle manure is also an important source of plant nutrients; it furnishes nearly as much nitrogen and more potassium than commercial fertilizers do, and it furnishes a third of the phosphoric acid. An increasing number of farmers have concrete manure pits and liquid manure tanks; others cover manure heaps with peat to preserve the nutrients.

Commercial fertilizers are generally used only for high-value crops, but are applied to most crops on the better managed farms. Nitrogen is applied especially to clay soils. Potash, needed on peat, is supplied to some extent by soil mixing. Manure is spread on mineral soils, particularly for potatoes and rotation meadows.

Machinery and Equipment

Mechanization of farm operations has been rapid in recent years despite the small size of farms and prevalence of open drainage ditches. The number of tractors increased from 14,000 in 1950 to 120,000 in 1964, from 1 for every 170 hectares of arable land to 1 for every 23 hectares (fig. 4). During the same period, the number of horses decreased by nearly one-half. Other machinery reported in 1964 includes 15,000 combines, 32,000 grain driers, and 48,000 milking machines.

Joint use of machinery, which makes mechanized farming possible on units too small to have their own equipment, is common in Finland. The Government has encouraged joint use of machinery since 1944 by subsidies to machinery pools and to persons purchasing machinery to be hired out to small farmers.

In 1959, two-thirds of the farms had electricity; two-fifths had running water in cowsheds, and one-fifth, in farm dwellings. Some 11 percent had silos.



Figure 4.--Flowing with the aid of a diesel tractor in Finland.
(Courtesy of Finnish Embassy)

Improved Seed

Scientific plant breeding, by enabling cultivation to extend northward and by increasing yields, has been of major importance in raising crop output. Plant-breeding stations are maintained by both the Government's Agricultural Research Center and the Central Cooperative Hankkija. Efforts to improve seed have been concentrated on grains, peas, and forage crops; these have been bred for earlier maturity, drought and disease resistance, straw strength in grains, and hardiness for winter crops. The bread grains have also been bred for high milling quality. Good seed for grass and clover is essential because of their importance in crop rotations.

The State Seed Inspection Laboratory inspects all seeds marketed; seeds are classified into three grades--Commercial, Elite, and High Quality. Some 90 percent of all seed, including all imported seed, is classed as Commercial. Classification as Elite or High Quality requires inspection of growing seed plants. Finland depends on imports for some of its seed, especially for sugarbeets, forage legumes, grasses, and spring wheat.

Pesticides

The use of pesticides to control insects, plant diseases, and weeds is increasing. Most pesticides are imported, either in prepared form or as raw materials. All preparations must be tested and licensed by the Agricultural Research Center before they can be sold.

FARMERS' ORGANIZATIONS AND CREDIT

Organizations

A large number of agricultural societies have as their primary purpose the provision of extension services to their members; the local and regional societies belong to one of five central organizations, the largest of which is the Central Association of Agricultural Societies. The central organizations have established joint committees for planning and supervising some of their extension activities. All receive financial assistance from the Government. Other societies which specialize in such work as livestock breeding, seedgrowing, horticulture, peatland cultivation, and grassland improvement also belong to one of the central associations.

The Central Union of Agricultural Producers is an organization to promote the socioeconomic interests of its members. It receives no Government support and, thus, is able to maintain an independent position as spokesman for farm producers; it has considerable influence on national policies affecting the farm economy. A smaller organization for Swedish-speaking farmers has a similar purpose.

Agricultural cooperatives are of major importance in processing and marketing farm and forest products, in purchasing farm requisites and consumer goods,

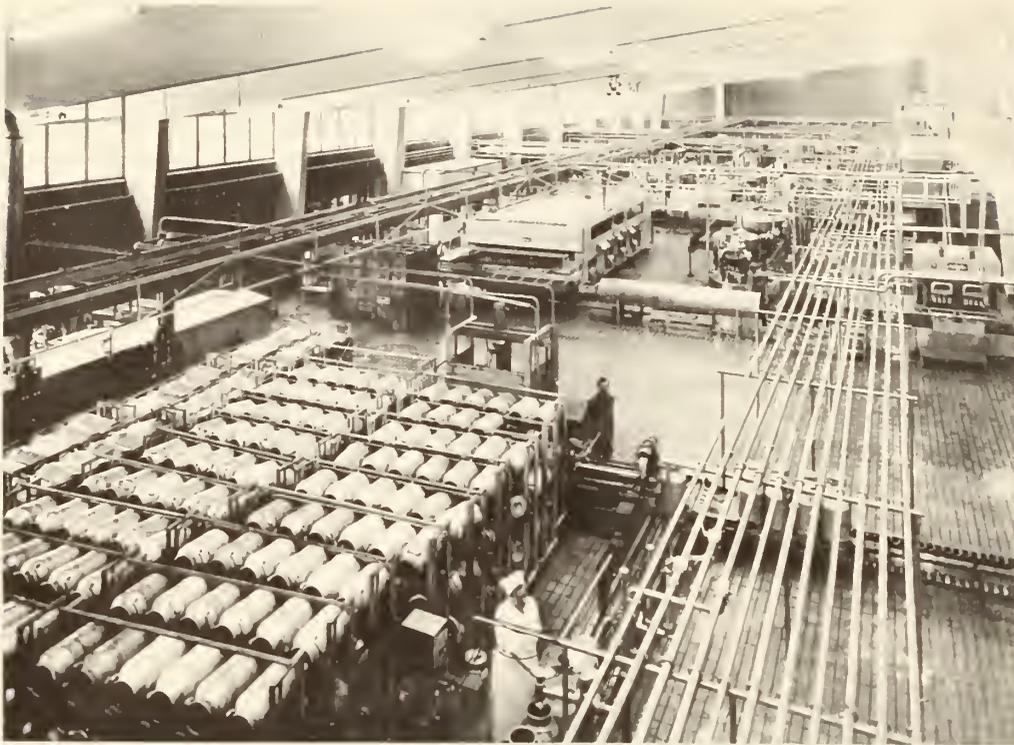


Figure 5.--Valio Cooperative Dairy in Helsinki. (Courtesy of Finnish Embassy)

and in providing credit. Some cooperatives engage in educational activities, and maintain plant-breeding stations, experimental farms, and nurseries. One cooperative manufactures a wide range of farm equipment in its own factories, installs machinery for dairies and flour mills, builds power stations, and installs electric equipment. Most farmers belong to at least one cooperative.

In 1961, cooperatives handled one-third or more of the country's wholesale and retail trade in consumer goods, three-fourths of the egg exports, nine-tenths of the meat received at slaughterhouses, and virtually all of the milk received by dairies (fig. 5).

Farm Credit

The primary sources of credit for Finnish farmers are the Government and the credit cooperatives. The major source of government credit is the fund available under the Land Use Act of 1958. Under this Act, loans are granted for land purchase, avoidance of land partition after death of owner, land improvement, construction (including residential building), installation of electricity, and road building. The Land Settlement Fund, from which the loans are made, obtains funds through budgetary appropriations and makes loans at interest rates of between 1 and 5 percent, for periods of 6 to 45 years. Loans made by this fund during 1963-64 averaged nearly 75 million markkas. ^{2/} In

^{2/} 1 markka is equal to 31.25 cents.

December 1964, a new Basic Credit Law was passed supplementing the Credit provisions of the 1958 Land Use Act. Under this law, credit may be obtained for purposes similar to those in the earlier act, but in addition to obtaining loans from the land settlement fund, borrowers may obtain loans from financial institutions with the Government paying the difference between 4 percent and the actual interest charged for the loan. The Ministry of Finance budgeted 1 million markkas in 1966 for interest subsidies to be made under provisions of the 1964 law, making it possible for agriculture to receive 46 million markkas in credit.

The credit cooperatives and their Central Bank (the Central Bank for Cooperative Agricultural Credit) represent the most important source of nongovernment credit for Finnish farmers. Local credit societies derive their working capital from deposits by the public and from loans from their Central Bank. Loans are made only to members and must be secured. In addition to supplying their members, both the local credit cooperatives and their Central Bank grant credit to other cooperatives and to local communities. Since 1925 the credit societies have provided long-term amortization loans, secured by mortgages, in addition to short-term loans. The Central Bank has provided the necessary capital by issuing bonds which are guaranteed by the Government.

GOVERNMENT AGRICULTURAL POLICY

For more than a decade the primary goals of the Finnish Government's agricultural policy have been to achieve a high degree of self-sufficiency in farm products and to maintain farmers' incomes at a level comparable with those of other sectors of the economy. Since the country has become nearly self-sufficient in grains and produces a surplus of livestock products, the main emphasis is on surpluses of livestock products that can be exported only with the aid of large subsidies. The Finnish Government relies heavily on foreign trade regulations to protect its agriculture from outside competition, but it also uses a large variety of internal measures to support agriculture.

A basic feature of Finnish agricultural policy is the income calculation system, patterned partly after the Swedish system. The latest legislation governing this system, the Agricultural Price Level Act of 1962, was in effect until the end of August 1965. In the absence of a new law since then, the Government is continuing the present level of subsidies to agriculture and will do so until a new agricultural income law (planned for presentation to Parliament by 1967) comes into effect.

The objective of the income calculation system is to maintain gross farm income and farm expenditures in the same relationship as during the base period -- 1961/62 for cost of inputs, and 1959/60-1960/61 for level of outputs and inputs. The cost of inputs includes family labor, valued at hired farm labor rates revised according to changes in the general level of earnings in Finland. Any decline in net income of agriculture, as shown by the income calculation made semiannually under the 1962 law, was compensated by increases in target producer prices and agricultural subsidies.

Under the system, the Government establishes target producer prices for wheat, rye, milk, pork, beef, and eggs for each crop year beginning September 1;

under certain circumstances, prices for the livestock products covered can be revised the following February. Target prices are supported by various methods, differing by commodity. To discourage increases in surplus production, the compensation to agricultural income indicated by the income calculation is reduced by an amount equal to the costs of subsidizing exports of such increases. Support is limited to a volume equal to that required for domestic demand or to actual output in the specified base period, whichever is greater. There has been no effort to limit production by acreage controls.

Besides target prices there are numerous other measures to support agriculture, partly, but not all, under the income calculation system. One of these is a direct area subsidy to small farmers, the amount of which varies by size of farm and the region in which it is located. Under the Agricultural Price Level Act of 1962, at least 10 percent of any increase in compensation owed to the farming sector under the income calculation system must consist of increases in such area subsidies. Farmers in the northern two-thirds of the country and in outlying islands also receive special subsidies designed to compensate for natural disadvantages. Among these are price subsidies on beef, pork, milk, barley, and rye; annual cash subsidies based on the number of cows held; and subsidies on transportation of products between farm and market. Other types of assistance to agriculture include financial support of agricultural schools and extension services; price-reducing subsidies to the fertilizer industry; premiums for land clearance and improvement of existing cropland; and government-subsidized credit for purchase of equipment and other farm improvements.

AGRICULTURAL PRODUCTION AND TRADE

Crops

Throughout Finland, most of the agricultural land is used for growing feed for livestock--grass, feed grains, fodder roots, and forage crops. Part of the potatoes and bread grain, as well as byproducts of beet sugar and vegetable oil production, are also fed to livestock. Imported feed grains and concentrates represent a relatively small part of the feed supply.

Grass

Grass, the leading crop of Finland, is mostly grown in rotation with other crops. During 1960-64, rotation grassland averaged about 1.4 million hectares. Most of this was in southern Finland, where a crop rotation generally runs 5 to 6 years and includes 2 to 3 years of grass. In the far north, over four-fifths of the arable land is in grass, compared with about one-half in the southwest.

Meadow and pasture are not clearly distinguished from each other, as much of the meadow is grazed after the last cutting. Usually the grazing season lasts about 4 months, and the livestock must be stall fed about 8 months of the year. Hay production has risen substantially, from an average of 3.2 million tons for 1951-55 to an average of 3.8 million tons for 1961-65, mainly as a

result of increasing yields per hectare. In Scandinavian feed units (each equivalent to 1 kilogram of barley), grass for hay represents nearly two-fifths of total crop production. This does not include grass that livestock obtain through grazing; more than one-third of total cattle feed is estimated to come from grazing rotation grassland, forests, and permanent grassland.

Timothy and red clover are commonly planted on rotation grassland. Meadow fescue, which has a strong second growth, ranks next to timothy for hay. Some alsike clover is used, and white clover is especially important for pasture. Since Finland's climate allows growth of only vigorous grasses, few of which are perennial, farmers must reseed frequently to prevent replacement by low-yielding native grasses.

Although some small farmers still use scythes, hay is now commonly cut mechanically (fig. 6). Hay is often dried on poles or frames and stored under cover. In swampy or low-lying areas, it is stored in sheds in the field until it can be hauled away after the ground is frozen. The Government has tried, with little success, to popularize silage making. Silage is made under the AIV method (named for the initials of its Finnish discoverer) by adding a chemical solution to the silage materials (fig. 7).

Feed Grains

Finland has long been nearly self-sufficient in feed grains, which far outrank bread grains (table 3). Feed grains do not come under the price guaranty system, but receive protection through quantitative restrictions on imports.

The principal feed grain is oats, the grain most easily grown in Finland since it tolerates the acid peat soils and the cool, moist climate. Should bad weather prevent ripening, oats have excellent feed value even when cut green. North of the Arctic Circle, oats are grown solely for green fodder. Most farmers grow oats, but production is concentrated in the southwest. The area in oats has remained fairly steady at somewhat less than half a million hectares. In 1960, production exceeded 1.1 million metric tons, and in 1961, Finland even exported some oats. With a poor crop in 1962, however, the country resumed importing on a small scale. Most of the oat crop is fed to livestock; less than one-tenth leaves the farm. Some of the oats sold are made into rolled oats for human consumption. Oats are planted in spring and harvested in September for grain. The oat sterile virus is the major disease; in the midfifties it caused heavy damage.

Barley, though less important than oats, has been gaining in area and output. After a poor crop in 1962, output in 1963 reached a peak of 492,000 metric tons, harvested from more than a quarter million hectares. The average for 1961-64 was 379,000 tons. Most of the barley is grown in southern Finland but it is important in northern Finland because it is the most dependable and the highest yielding of the spring grains that can be grown. It is sensitive, however, to poor drainage and strong acidity. About three-fifths of the crop is fed to livestock, and less than one-fifth is sold off the farm. A small quantity of barley is used for human consumption. Also, some malting barley is grown under contract with processors. Barley is planted in May and harvested



Figure 6.--Cutting hay and hay drying on poles at Espoo (southwest of Helsinki). (Courtesy of Finnish Embassy)



Figure 7.--Filling silo preparatory to making silage under the AIV method, Finland. (Courtesy of Finnish Embassy)

Table 3.--Selected crops: Production, net imports, and supply, averages 1951-55, 1956-60, and 1961-64

Crop	Production		Net imports		Supply	
	1951-55	1956-60	1951-55	1956-60	1951-55	1956-60
Grains						
Oats	769	792	6	18	775	810
Barley	255	362	7	2	262	364
Wheat	215	240	246	239	461	479
Rye	151	140	104	83	255	223
Other grains ^{3/}	31	41	38	44	69	85
Sugar (raw) ^{4/}	29	42	123	140	152	182
Potatoes	1,273	1,425	6	1	1,279	1,426
Dry legumes	12	10	3	4	15	14
Oilseeds	17	11	10	36	27	47
				1,000 metric tons		

^{1/} 1964 data are preliminary.

^{2/} No adjustment for changes in stocks.

^{3/} Production, all mixed grain; imports, principally corn.

^{4/} Sugar from imported Danish beets (included in production but excluded from trade) averaged less than 5,000 tons during 1957-64.

^{5/} Insignificant.

Sources: Finnish official statistics including Statistical Yearbook of Finland, 1960-64 (6); Monthly Review of the Board of Agriculture (7); and Foreign Trade, annual and monthly issues (4). Grain Trade Statistics (25). (See Selected References, p. 31.)

in late August. Plant-breeding efforts have concentrated on varieties resistant to loose smut.

The remaining feed grain production in Finland is reported as mixed grain-- a mixture of grains (mainly barley and oats) or grains and dry legumes. During 1961-64, production of mixed grain averaged 51,000 metric tons annually. Imported feed grain consists solely of corn except in years of poor oat and barley crops. Annual corn imports have averaged about 40,000 tons since 1950.

Bread Grains

Since World War II, wheat has been the leading bread grain in Finland. It is cultivated throughout southern Finland. Both the area devoted to wheat and the yield per hectare have increased over the past decade. Production reached a record of almost 463,000 metric tons in 1964, and a similar crop was harvested in 1965. Imports of wheat have dropped since 1960, but hard wheat continues to be imported for mixing with soft domestic wheat to make the desired quality of flour.

Under long-term bilateral trade agreements, Finland imports semisoft wheat from the Soviet Union. As domestic production has risen, Finland has had to resell and ship some Soviet wheat directly from Soviet ports or export flour milled largely from this wheat. Some downward adjustments have been made in the quota, including the adjustment in 1963 when the Soviet crop was poor.

Spring wheat makes up at least four-fifths of the total wheat crop. In the past, wheat cultivation was limited to the more fertile clays of the warmer coastal areas. About three decades ago when Finnish research developed higher yielding, stiffer strawed varieties of wheat that were more tolerant of acid soils and more resistant to rust, cultivation began to spread northward. Research has also developed earlier maturing varieties, which are better adapted to combine harvesting.

The Finnish Government, through the State Granary, purchases all domestic wheat offered to it at guaranteed prices, and protects the domestic market by requiring mills to use a specified proportion of domestic grain. For some time this proportion has been 80 percent. The State Granary also is the sole importer of wheat, which it sells to the mills at the domestic price. Since the domestic price is considerably above the world market price, the Government makes a profit on these transactions.

Cultivation of winter wheat is limited to southern coastal areas. Breeding of winter varieties is concentrated on winter hardiness and resistance to the two common fungus diseases, snow mold and snow rot. Spring wheat is planted in May and harvested generally in August or September, which is also the time for harvesting winter wheat planted the year before.

Rye occupies less than half the area it did before World War II and a much smaller area than wheat, which has replaced it as Finland's major bread grain. Because of winter hardiness and tolerance of soil acidity, rye can be cultivated in the central and northern parts of the country, where it is still the major bread grain. Since 1950, production has declined, averaging 134,000 metric tons

per year in the 1961-64 period. Imports from the Soviet Union under bilateral trade agreements have also declined in recent years. As with wheat, the State Granary guarantees the producer price of rye. It also sets the proportion for domestic and imported rye used in milling and the price of the final mixture.

Plant breeders have crossed stronger stemmed Swedish and German varieties with native winter-hardy rye to eliminate lodging. Weak straw, however, remains a problem. Rye is generally sown in late August and harvested in the following August. A midsummer rye is also cultivated; this is usually cut green for fodder the first summer and harvested for grain the next.

Potatoes

Potatoes, grown by most Finnish farmers, are one of the most valuable food crops. They can be grown in the far north, mature in less time than grains, sometimes do well in years of poor grain crops, and are valuable in crop rotations. Production during 1956-60 averaged over 1.4 million metric tons per year; however, for 1961-64, the yearly average declined to less than 1.0 million tons. The area in potatoes declined from an average of over 90,000 hectares during 1951-55 to 74,000 in 1961-65.

Although frost is a danger, yields are higher in the north than in the south, where potato disease is more prevalent. Almost half of the potato crop is fed to livestock. Potatoes are also used in the manufacture of starch and alcohol.

Sugarbeets and Sugar

Cultivation of sugarbeets began in 1919, when the first sugarbeet factory opened. At first, beet growing was heavily concentrated in the extreme south, but it has recently begun to spread northward. Although production has increased substantially since the early fifties, reflecting both larger plantings and higher yields, Finland still remains dependent on imports for over two-thirds of its sugar, most of which is purchased from the Soviet Union. Poland is another important source of sugar. Imports are controlled by the Finnish Sugar Corporation, which has large interests in the domestic processing mills and owns all the refineries. The Government fixes prices paid to beet growers and reimburses the mills for production costs in excess of the controlled price at which they are authorized to sell the sugar. Finnish-grown beets cannot supply the mills to capacity, and the mills have contracted for beets from Danish growers since 1957.

Sugarbeets are planted in the spring. The short growing season in Finland has led to attempts to transplant seedlings. Plant breeding has produced seed strains better adapted to Finnish conditions.

Oilseeds

The cultivation of oilseeds, begun in the forties, is now limited almost entirely to rapeseed. At one time flax was grown for both seed and fiber, but

production has been insignificant since 1956. Imports of oilseeds (largely soybeans and flaxseed) and copra have risen fairly steadily since 1950, reflecting greater demand and processing activity. Annual imports of oil, on the other hand, have declined from about 16,000 metric tons in the early fifties to 2,000 tons or less in recent years. Imports of oil cake and meal for livestock feed have averaged about 50,000 tons in recent years; an additional 30,000 tons or so are obtained from the pressing of imported seed.

Finnish farmers grow rapeseed under contract with processors. The Government has discontinued direct support prices for rapeseed, but requires margarine producers to use oil from domestic seed for about 20 percent of their raw material. Margarine production declined from its peak of nearly 34,000 metric tons in 1957 to 19,000 in 1964 because of higher prices relative to butter prices, which are subsidized.

Other Crops

Dry legumes, chiefly peas, were grown on an area of only about 2,000 hectares in 1964 and 1965, mainly in southern Finland. Production fell from an annual average of 12,000 metric tons in 1951-55 to 3,000 in 1961-65. Peas are grown largely for human consumption; other dry legumes are produced in small amounts for fodder. About two-thirds of the supply of dry legumes is imported.

Other vegetables and fruit are not regularly reported. Most of the vegetables and domestically produced fruit consumed in Finland come from small kitchen gardens. Market gardens produce only a small part of the total vegetable crop, estimated at 180,000 metric tons in 1963. The main vegetables produced are carrots, beets, white cabbage, onions, and cucumbers. Vegetables scarcely figure in international trade; net imports totaled only 8,000 metric tons in 1963.

Among tree fruits, only apples are significant; 44,700 metric tons were produced in 1964. Imported fruits account for one-half to two-thirds of fresh fruit consumption. Citrus fruits and apples lead among imports, although apples cannot be imported until the domestic crop is marketed. Other fruits imported include bananas, grapes, and pears.

Although fodder roots return good yields in some areas, their cultivation is restricted by climatic limitations in the north and insect damage in the south. About 70 percent of the fodder-root area is devoted to leaf turnips, which are the least sensitive to frost; swedes (rutabagas) rank second. Other roots for fodder include ordinary turnips, fodder sugarbeets, and mangel-wurzels.

Livestock and Livestock Products

Livestock production dominates farming in Finland, especially on the smaller farms, and provides nearly 85 percent of agricultural income. Cattle are by far the leading source of agricultural income. During the crop year 1963/64, dairy products contributed 61 percent; beef and veal, 10 percent; pork, 8 percent; eggs, 5 percent; and all other livestock products (excluding mink pelts), less than 0.4 percent of the gross agricultural return.

Table 4.--Number of livestock, 5-year averages, 1951-65 ^{1/}

Kind	Average		
	1951-55	1956-60	1961-65 ^{2/}
	- - - - - Thousands - - - - -		
Cattle			
Cows	1,159	1,137	1,171
Other	693	761	947
Total cattle	1,852	1,898	2,118
Horses	346	268	215
Hogs	461	481	536
Reindeer	143	167	^{3/} 189
Sheep	976	431	249
Chickens ^{4/}	3,890	3,819	^{3/} 3,694

^{1/} As of June 15.

^{2/} 1965 data are preliminary.

^{3/} Less than a 5-year average.

^{4/} Over 6 months of age. Total number, including chicks, averaged 6.6 million in 1961-64.

Sources: Statistical Yearbook of Finland, 1963, 1964 (6); Finland, Monthly Review of the Board of Agriculture (7), and reports of U.S. agricultural attaché at Helsinki. (See Selected References, p. 31.)

Livestock Numbers and Breeds

Cattle are kept primarily for milk, but dairy breeds also furnish most of the domestic supply of beef. Though the increase in the number of cows has been slight, the total number of cattle has increased substantially since the early fifties (table 4). Milk production has increased at a much faster rate than number of cows.

In 1959, over half of the farms with cows had three cows or less. Cattle production is concentrated in the south and southwest, but some cattle are kept above the Arctic Circle in areas where feed can be grown. Native breeds are small but productive (fig. 8). Finnish is the most common breed, followed by Ayrshire (especially in the southwest); less than one-fifth are crossbreeds.

There were 1,790 milk-recording associations in 1963/64 which kept records on almost 30 percent of the total number of cows. Recorders, who visit farms monthly, also give advice on dairying. For owners of herds containing fewer than 8 cows, the Government pays more than half of the butterfat-recording costs. In the past, women took care of almost all dairying, including milk recording, but men have taken on more of this activity since the advent of milking machines.



Figure 8.--Native Finnish cattle, small but productive. (Photo by Marshall Cohen, ERS)

Artificial insemination, begun in 1947, has spread quickly, and many cows are now registered with artificial insemination societies. Finnish cattle are hardy and healthy. Tuberculosis and contagious abortion, serious cattle diseases in many countries, rarely occur.

Hogs, though much less important than cattle, rank second as a source of livestock income. Hogs are kept mainly in the southwest; they have increased in number since 1950, and totaled 552,000 in 1965. The Yorkshire and an improved but similar native breed are raised; both breeds grow fast and produce good bacon. Some dairies raise hogs to make use of the byproducts of butter and cheese making as hog feed. Since 1963, increasing numbers of hogs have been served by artificial insemination societies.

Horses have declined steadily in number; there were only 184,000 in 1965. Tractors now do most of the farm and forest work once performed by horses.

Reindeer, the major means of livelihood of Lapps living in northern Finland, provide draft power as well as meat and milk. Reindeer are now more numerous than they were in the 1950's. In winter the reindeer browse on lichens, moss, and twigs, and in summer migrate northward to grass pastures. Recently a cooperative herding system enabled some of the Lapps to have permanent farms. The Finnish Government limits the size of herds to prevent overbrowsing of winter feeding areas.

The number of sheep decreased from over a million in the early fifties to

Table 5.--Milk utilization and dairy product output and net trade, averages 1951-55, 1956-60, and 1961-64

Product	Average		
	1951-55	1956-60	1961-64 ^{1/}
- - - - 1,000 metric tons - - - -			
Milk used for --			
Fluid milk ^{2/}	1,185	1,269	1,272
Butter making	1,306	1,633	2,040
Cheese making	206	216	254
Other purposes (e.g., dried milk and ice cream)	2	23	65
Feed	89	88	82
Total milk production	2,789	3,229	3,713
Dairy products other than fluid milk:			
Output:			
Butter ^{3/}	61	82	100
Cheese	21	26	34
Net trade: ^{4/}			
Butter	+2	-20	-17
Cheese	-10	-15	-19

^{1/} 1964 data are preliminary. ^{2/} Includes milk used for cream.

^{3/} Includes farm output, insignificant in recent years.

^{4/} + = imports; - = exports.

Source: Foreign Agriculture Circulars (28). (See Selected References, p. 31.)

only 199,000 in 1965. The native breed commonly kept is small and prolific, and provides both mutton and wool. Goat raising is of minor importance. Less than 1,000 have been reported since 1960.

Poultry are generally kept in small flocks, but large-scale poultry farming is developing around urban areas. In 1964, the number of hens (6 months or older) was almost 3.9 million. White Leghorn and Rhode Island Red are the most common breeds. There is no significant broiler industry; poultry for meat consists chiefly of culls. Small numbers of turkeys, geese, and ducks are raised.

Mink farming is a rapidly growing enterprise, and some foxes are also raised. In 1965, Finland had about 2,500 mink farms, including one at Keppa (near Vaasa) which is claimed to be the largest in the world. The mink population in 1965 was about 1.5 million.

Livestock Products

Annual average milk production rose from 2.8 million metric tons in 1951-55 to 3.7 million tons in 1961-64 (table 5). Over half of the milk produced goes into butter. Most of the rest is sold as fluid milk or cream. About one-tenth

of the milk is used for cheese, feed, ice cream, dried milk, or similar products. Dairies, which received less than three-fifths of all milk produced in 1951-55, now receive over three-fourths; they produce virtually all of the butter and cheese. More than half of the cheese is an Emmental (Swiss) type; and two-fifths is Edam. Cheese production, which averaged 21,000 metric tons annually during 1951-55, increased to 34,000 tons in 1961-64. Finland was a small net importer of butter in the early fifties, but is now a substantial exporter. In 1964, butter production reached 102,000 tons, of which 24,000 were exported. In recent years the United Kingdom has been by far the largest outlet for Finland's butter exports. Preliminary data for 1965 indicate that, because of large stocks and export difficulties, butter production declined to about 100,000 tons in that year. The small but growing output of dried milk reached 20,000 tons in 1963. Most of the whole milk powder is exported but much of the skim milk powder is fed to livestock. A rise is expected in the output of cheese, dried milk, and other dairy products, which can be marketed more readily abroad than butter.

Annual surpluses of dairy products have developed under Government support programs; these surpluses can be exported only with the aid of substantial subsidies. The butter surplus would have been even greater without subsidies to reduce butter prices to consumers, and high fixed prices for margarine.

Meat and eggs also receive substantial Government price support. Production of meat, which remained stable throughout the fifties, swung upward in the early sixties (table 6). A record level of 173,000 metric tons was reached in 1964. Preliminary data indicate a further increase to more than 180,000 metric tons in 1965, with beef and veal making up 56 percent, and pork, 39 percent. Foreign trade in meat is minor; small exports of pork and beef have been subsidized by the Government.

Poultry meat remains a byproduct of egg production. Egg production, which averaged 37,000 metric tons annually during the late fifties, reached 51,000 tons in 1964. Exports of surplus eggs (about one-fifth of total production in recent years) are subsidized by the Government.

Other animal products are minor except for mink pelts. Fur skin exports, almost entirely mink pelts, rose in value from 24.1 million markkas in 1961 to 42.6 million in 1964, when they accounted for 17 percent of the value of all agricultural exports.

FOREIGN TRADE IN AGRICULTURAL PRODUCTS

Trade Patterns

In 1964, agricultural products accounted for only 6 percent of total exports, but for 18 percent of total imports.

Dairy products (chiefly butter and cheese), eggs, and meat contributed 65 percent of all agricultural export earnings in 1964; hides, skins, and furs contributed 24 percent. Over four-fifths of total agricultural exports went to

Table 6.--Meat and egg production and trade, 5-year averages, 1956-60 and 1961-65

Product	Average	
	1956-60	1961-65 ^{1/}
- - <u>1,000 metric tons</u> - -		
Meat ^{2/}		
Production		
Beef and veal	69	87
Pork	61	66
Mutton	3	2
Horsemeat	4	4
Total	137	159
Net imports	^{3/}	^{4/} 3
Eggs		
Production	37	^{4/} 46
Net exports	6	9

^{1/} 1965 data are preliminary estimates. ^{2/} Includes edible offal, intestines, and edible and inedible fat, but excludes reindeer and poultry meat. ^{3/} Less than 500 metric tons. ^{4/} 1961-64 average.

Sources: Annual Statistics of Agriculture and Sampling Census of Agriculture, 1960 (9), and Monthly Review of the Board of Agriculture (7). (See Selected References, p. 31.)

European countries. Of the total exports to Europe, members of the European Free Trade Association (EFTA) received 44 percent; the European Economic Community (EEC), 21 percent; the Soviet Union, 13 percent; and other European countries, 2 percent. The United States and Canada together took 11 percent of all agricultural exports, and Western Hemisphere countries, most of the remaining 9 percent.

The United Kingdom, mainly because of large butter purchases, stood first as a market for Finland's farm produce, and the Soviet Union, second. West Germany, with fairly large purchases of dairy products and hides and skins, although first among EEC countries, ranked third. The United States, the largest buyer of Finnish mink pelts, followed closely after West Germany.

In 1964, coffee, tea, and spices -- of which coffee was most important -- constituted the leading category of agricultural imports (table 7). Sugar was next, fruits and vegetables were third, and fibers, fourth. Other imports included grains and their preparations; fats, oils, and oilseeds; raw tobacco; hides and skins; and animal feed other than grain.

Table 7.--Agricultural imports, by commodity and origin, 1964

Commodity	EFTA	EEC	U.S.S.R.	Other : Europe	United : States and : Canada	South : America	All : other	Total	Distribution : by : commodity
Coffee, tea, cocoa, and spices	3.7	6.0	4/	0.1	2.8	112.2	39.9	164.7	21.8
Sugar and sugar preparations	.3	.4	47.9	12.1	4/	8.7	54.3	123.7	16.3
Fruits and vegetables	8.0	16.3	.4	26.5	22.2	12.5	29.3	115.2	15.2
Fibers	34.9	10.4	20.2	.1	6.0	1.6	14.0	5/ 87.2	11.5
Grains and preparations	5.6	1.7	16.7	4.1	15.9	4.3	4.3	52.6	7.0
Fats, oils, and oilseeds	4.4	4.1	.6	.4	13.0	.6	19.9	6/ 43.0	5.7
Tobacco	.2	.6	4/	5.7	16.3	.1	4.4	7/ 27.3	3.6
Hides, skins, and furs	6.5	1.6	2.2	.9	2.5	2.3	7.1	23.1	3.1
Animal feed	3.0	.2	5.4	9.3	.2	2.2	.3	6/ 20.6	2.7
Rubber	.8	2.7	4/	4/	4.3	4/	10.8	9/ 18.6	2.5
All other	31.6	34.5	.4	5.2	1.8	.3	6.8	80.6	10.6
Total	99.0	78.5	93.8	64.4	85.0	144.8	191.1	756.6	100.0
Distribution by origin	13.1	10.4	12.4	8.5	11.2	19.1	25.3	100.0	...

1/ Includes Iceland and Turkey.

2/ Argentina, Brazil, Colombia, Peru, and Venezuela, the only countries listed separately.

3/ Cost, insurance, and freight.

4/ Insignificant, if any.

5/ Includes (in millions of markkas) wool, 10.5; cotton, 26.3; other vegetable fiber, 6.8; and partly manufactured and synthetic fibers which are not agricultural items but cannot be separated by countries, 43.6.

6/ Includes the following items which are not agricultural but cannot be separated by countries: Under "Fats, oils, and oilseeds," marine oils, 2.0 million markkas; under "Animal feed," fishmeal, 2.4; under "Rubber," synthetic and reclaimed, 8.4; and under "All other," whisky and other liquors included with beverages, 21.6.

7/ Almost entirely unmanufactured.

Source: Finland, Board of Customs, Foreign Trade, Dec. 1964 (preliminary data) (4). (See Selected References, p. 31.)

Although EFTA countries as a group were Finland's chief source of imported farm products in 1964, the Soviet Union stood first as an individual country; it was a leading supplier of sugar as well as of grains. The United States ranked third, furnishing mainly fruits and vegetables, tobacco, and oilseeds.

In addition to Brazil, Finland looked to Colombia, Peru, and the Netherlands for coffee and cocoa in 1964. Spain was the second source of fruit after the United States.

Trade Regulations

Finland makes extensive use of trade regulations to protect its agriculture from imports of commodities which compete with domestic production. Quantitative controls on imports into Finland are imposed primarily for this purpose. These controls are imposed also to insure fulfillment of import commitments under bilateral trade agreements, and, less importantly, to conserve foreign exchange. From the standpoint of import controls, imports may be divided into four categories: (1) commodities subject to Government monopoly control (most grains and sugar), (2) commodities subject to individual import licenses when imported from any source, (3) commodities under specified annual quotas for which licenses are freely granted when from countries participating in Finland's multilateral trade agreement ("Helsinki Club"), and (4) commodities that may be imported without license when they are from "Helsinki Club" members. Although Finland is an associate member of the EFTA and a member of the General Agreement on Tariffs and Trade (GATT) and is thus committed to a policy of trade liberalization, imports of practically all agricultural commodities also produced in Finland are still either fully controlled or covered by global quotas.

Collection of variable or fixed import fees, which replaced tariffs after October 1962 on most agricultural products competing with domestic production, is another important method of safeguarding domestic price levels.

A variable import fee is subject to change if world market price of the commodity concerned has changed by 5 percent or more in the course of 2 calendar weeks. Commodities subject to fixed instead of variable levies consist mainly of those on which rates have been agreed to under GATT, and grains (except corn).

On January 1, 1965, a new Law on Import Fees of Farm Products replaced the Law on the Agricultural Marketing Fund of 1962 as the statutory basis for Finland's system of import fees. However, the only major difference between the current law and the older one is that import fees are placed into a budgetary fund instead of an extra-budgetary fund. As before, proceeds from import fees are used for the following purposes: (1) To reduce domestic consumer prices of agricultural products, (2) to reduce prices of concentrated fodder and of refined fats and oils processed from domestic oil seeds, and (3) to pay to farmers the increased cost resulting from storage of farm products.

As of October 1965, Finland had bilateral trade agreements with 11 countries. The most important of these agreements is that with the Soviet Union, under which the Soviet Union supplies most of Finland's imports of agricultural products. The protective trade policy of the EEC countries during the past few years has

had an adverse affect on Finnish agricultural trade, and Finland has had to find new markets, particularly in Communist countries.

Export subsidies have been paid in recent years on butter, cheese, dried milk, eggs, pork, and beef. The amount of the subsidy is generally equivalent to the difference between a guaranteed export price and the price actually obtained, although flat export subsidies have been paid at times for pork and eggs. To comply with EFTA and GATT prohibitions against subsidies which encourage further increases in subsidized exports, subsidies paid on exports in excess of base-year quantities are deducted from the compensation allowed to agriculture under the income calculation system.

U.S. Trade with Finland

Agricultural products make up only a small part of U.S. trade with Finland. Imports of Finnish farm products into the United States consist almost entirely of cheese. In 1964, they amounted to only \$1.4 million, about 2 percent of total imports from Finland (table 8). If undressed mink furs (classed as non-agricultural in U.S. trade statistics, though produced in Finland by farmers) had been included, the share of agricultural products would have been about 10 percent of total imports. However, Finland is the source of less than one-tenth of U.S. imports of undressed mink furs.

U.S. exports of farm products to Finland far outvalue farm products imported from Finland. U.S. farm exports represented about 22 percent of total U.S. exports to Finland in 1964 (table 9).

The leading category of U.S. farm produce shipped to Finland in 1964 was fruit and fruit preparations, chiefly fresh apples, dried prunes, and raisins. Raw tobacco, mainly flue-cured, ranked second in 1964, the value having dropped considerably since 1962 and 1963, when tobacco ranked first. Oilseeds, chiefly soybeans, decreased in value during 1962-64, but oilseeds were still third in 1964. Cotton was next, then grains (mainly wheat in 1964), and coffee (mainly instant and roasted).

Gains in coffee and fruit sales failed to offset losses in tobacco and oilseed sales, and total dollar value of U.S. agricultural exports to Finland was lower in 1964 than in either of the 2 preceding years.

AGRICULTURAL PROSPECTS

As a result of both an expanding crop area and increasing crop and livestock yields, Finnish farm output has risen over the past decade at a rate estimated to be nearly 3 percent a year. This has made Finland nearly self-sufficient in grains and more than self-sufficient in livestock products. Finland still imports some wheat (to blend with domestic wheat to maintain the desired bread quality), part of its sugar and fruit supplies, and all of its semitropical and tropical products. The Finns have a generally satisfactory diet, and domestic demand for food is expected to rise only as the population increases, at a rate of about 1 percent a year. Increasing per capita incomes may, however, result in shifts of demand to higher quality foods. Crop and livestock yields are

Table 8.--U.S. imports from Finland, 1962-64

Commodity	1962	1963	1964
- - - - 1,000 dollars - - - -			
Agricultural			
Wool, unmanufactured	33	27	<u>1/</u>
Cheese	872	951	1,177
Hides and skins <u>2/</u>	76	60	84
Bread, yeast leavened	-	50	35
All other	36	38	88
Total agricultural	1,017	1,126	1,384
Nonagricultural	58,841	60,404	72,996
Total, all commodities	59,858	61,530	74,380

1/ Insignificant, if any.

2/ Excludes furs, valued in 1964 at \$5.8 million (considered a nonagricultural product in U.S. statistics).

Table 9.--U.S. exports to Finland, 1962-64

Commodity	1962	1963	1964
- - - - 1,000 dollars - - - -			
Agricultural			
Cotton, excluding linters	1,269	2,140	1,469
Fruit and preparations	5,345	5,191	5,443
Grains and preparations	<u>1/</u>	2,049	1,155
Vegetable oilseeds	2,718	2,502	2,215
Tobacco	5,750	5,503	2,939
Coffee	598	804	964
All other	1,054	1,101	1,289
Total agricultural	16,734	19,290	15,474
Nonagricultural	40,730	37,327	53,551
Total all commodities	57,464	56,617	69,025

1/ Insignificant, if any.

expected to increase during the sixties; even without continuing expansion in agricultural area, larger surpluses may be expected.

A special Agricultural Policy Committee recommended in 1962 that the Finnish Government discontinue its policy of subsidizing land clearance and of creating new farm units, and that it concentrate on improving the economic position of existing farms by promoting more efficient management. In particular, the Committee recommended that the Government encourage the consolidation of farms into larger, more efficient units and pass legislation prohibiting the division of farms among heirs into units below a specified size. The Committee's report recognized that adoption of its recommendations for rationalization of farming would require a further decline in the farm population.

No action of any significance had been taken to carry out these recommendations by the time elections were held in March 1966. These elections brought about a shift in the parliamentary majority from the Centre (formerly Agrarian) Party to the Social Democrat Party. The greatest difficulty in forming the new government was reaching an agreement on agricultural policy. The program finally adopted by the coalition government, which took office late in May, called for changes in agricultural policy which would in effect carry out most of the recommendations made by the Agricultural Policy Committee in 1962. One of the major economic problems is nonagricultural employment for those who would have to give up farming, since the level of unemployment is fairly high. The Government's program calls for an economic plan to create new jobs for persons leaving agriculture, as well as for unemployed workers. However, pending the passage of a new agricultural price law, planned for 1967, the farm income calculation system continues to operate as it has in the past. Whether or not adequate measures will be adopted to bring about the rationalization of agriculture and better balance between production and consumption, which the program calls for, depends on various factors, both economic and political.

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3/ In addition to the references listed, unclassified dispatches of the U.S. Foreign Service pertinent to regional agriculture were freely used for this report.

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