



FINNISH AGRICULTURE IN 1993

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MAATALOUDEN TALOUDELLINEN TUTKIMUSLAITOS
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Abstract. Finnish agriculture in 1993

The crop was very good in 1993. The hectareage yields were exceptionally high, in some cases higher than ever before, and the quality was also good. The average hectareage yield was 3,316 f.u./ha, and the total yield was 5,403 mill. f.u. without straw. The hectareage yields of oats and barley, in particular, were high, but those of oil plants were also good.

The cultivated area increased by about 30,000 hectares from the previous year, because the area under premium fallow, which was about 450,000, remained about 50,000 ha smaller than in 1992. Farmers had to leave fallow 15 % of their arable land area in order to receive the hectareage compensation for the whole area. A special compensation was paid if the area left fallow exceeded the minimum.

A slight decrease occurred in livestock production. The amount of milk delivered to dairies dropped about 10 mill. kg.

Meat production fell altogether by about 5 %. The most dramatic drop occurred in beef production, which fell by 9 %. Pork production decreased by about 5 % and egg production increased by 4 %.

Farm income decreased by about 25 % in 1993. The marketing charges also cut the farmers' incomes by a considerable amount. Producer prices decreased slightly, but support

rose correspondingly. The prices of production inputs did not increase much.

The farm income system was revised at the end of 1993. The decisions on prices are still made in the negotiations between the state and the producer organizations. The new marketing system resembles the price system of the EU. A target price and minimum price are set for the most important products, and the latter forms the basis for decisions on export support. Imports are protected by means of the Act on Import Levies.

A settlement was reached in the GATT negotiations, and this comes into effect at the beginning of 1995. It is not considered very problematic for Finland, because reducing production is an objective in any case.

The adaptation to the price system of the EU, if Finland becomes a member, would be a much more demanding task than the GATT settlement. The response of the EU Commission to the position paper of Finland was very negative for the part of agriculture. Finnish farmers seem to face a very difficult future in the EU.

Index words: Finland, agriculture, production, price, income, policy

Preface

1993 was a year of expectation and adaptation in agriculture. The list of the demands of agriculture presented to the EU with high hopes met with a cold response in Brussels. Farmers are now hoping for a better outcome in the negotiations. However, the reduction in the export support of agriculture and the new Farm Income Act reflect the pressures caused by the integration. Marketing systems that are similar to those of the EU were introduced in Finland, and the support will possibly be lowered. Last year was quite favorable for agriculture proper, because the crop was very good.

This publication presents an overview of the development of agriculture and agricultural policy in 1993. It includes preliminary data on production, consumption, prices and farmers' incomes. As the estimates are made at the end of the year, the statistics are still deficient. Thus it would be advisable to check the statistical data on 1993 from official statistics, when they are completed.

The publication also includes some basic information on Finnish agriculture and time series on e.g. the development of production and prices over a longer period of time. The general trends and changes in agricultural policy are also dealt with briefly. Part of the statistical data of this section are also preliminary.

The structure of the publication is the same as before, and, consequently, part of the text has also remained unaltered. Naturally, an attempt has been made to bring the statistical data up to date as far as possible.

This publication would not be possible without the contribution of the staff of the Research Institute. In particular, I wish to thank Jaana Ahlstedt, Ossi Ala-Mantila, Helena Jokinen, Mari Nuutila, Reijo Pirttijärvi and John Sumelius for their assistance in finishing the text and acquiring the statistical data. I also thank Jaana Kola for the English translation, and Heidi Mittler for translating the publication into Swedish.

The author alone is responsible for the possible mistakes and defects. Also, the judgements and viewpoints presented here are those of the author, and they do not necessarily represent the views of the Research Institute or the official agricultural policy.

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Lauri Kettunen

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I

OVERVIEW OF AGRICULTURE IN FINLAND

1. Agriculture and the national economy

1.1. Gross domestic product and investments

At the beginning of the 1960s the share of agriculture in the gross domestic product was about 10 %, but at present it is only about 2.5 %. During this period of time the volume of agricultural production has increased by about 30 %, but the gross domestic product has grown even more, and the share of agriculture has decreased as a result. The amount of purchased inputs and services in agriculture has also

increased, i.e. part of the value added has shifted to other sectors.

The significance of the total food chain in the national economy is much greater than the share of agriculture in the gross domestic product alone indicates. The sectors providing production inputs, transportation and processing increase the share of food economy in the whole national economy considerably.

In 1992 the total food expenditure amounted to FIM 56 bill., and its share of the consumer expenditure was 16 %. This does not include alcoholic beverages. The food sector employs about 300,000 people, when the production input industry, services and food industry are included, in addition to agriculture, but the retail trade is left out.

Table 1. Gross domestic product (at factor cost) and investments in the whole national economy and in agriculture.

Year	Gross domestic product			Investments		
	total FIM bill.	agriculture FIM bill.	%	total FIM bill.	agriculture FIM bill.	%
1983	246.33	11.40	4.6	70.05	4.68	6.7
1984	275.24	12.44	4.5	73.43	4.61	6.3
1985	298.67	12.43	4.2	80.05	4.80	6.0
1986	315.90	13.05	4.1	83.51	4.59	5.5
1987	344.93	10.93	3.2	93.27	4.25	4.6
1988	384.46	11.01	2.9	111.05	4.54	4.1
1989	422.53	14.19	3.4	136.15	5.06	3.7
1990	447.53	15.17	3.4	139.14	5.08	3.7
1991	426.97	13.09	3.1	109.70	3.75	3.4
1992 ^e	414.23	10.49	2.5	87.41	2.27	2.6

Source: Statistical Yearbook of Finland from various years.

Following the trend of investments in the national economy, the investments in agriculture have also decreased in the past few years. In 1992 the share of agriculture of the investments of the whole national economy was only 2.6 %.

Agriculture is a very capital intensive industry. One job in agriculture costs much more than the average of the whole national economy. A modern farm requires a lot of land, buildings and machinery, but employs only a couple of people.

The share of the employed labor force of agriculture in the whole national economy is about 7 % (Appendix 2). This is considerably larger than the share of agriculture in the gross domestic product. It would seem that the productivity of labor is not as good in agriculture as in other sectors of the national economy. However, there are difficulties in the compilation of statistics on the labor force and labor input in agriculture. Members of a farm family often work outside agriculture as well, which means that the statistics may overestimate the share of agriculture in the employed labor force. Only about half of the incomes of farm families come from agriculture. Finnish farms are still quite small, which also explains the relatively high labor input.

1.2. Economic situation

The decline in Finnish economy continued in 1993. The gross domestic product fell by about 3 %, after a 4 % drop in the previous year. From the figure of 1990 the GDP has fallen as much as 15 %. The change for the better has not occurred, in spite of the optimistic forecasts. In 1994 the gross domestic product is expected to grow 1-2 %.

The national economy is split into two parts: the export sector is doing well and expanding, but the domestic market is doing very badly. Production decreases in the domestic market, and the unemployment and the deficit of the state economy increase as a result.

At the end of 1993 the level of unemployment was 20 %; the year before this figure was 15 %.

The growth of unemployment has slowed down, but some increase is still expected to occur in 1994. The most serious aspect of unemployment is the fact that the number of people that have been unemployed for a longer period of time has been growing very rapidly. They are no longer entitled to the unemployment benefits that are tied to income, and they have to live on welfare.

The deficit in the state economy is great. There are many reasons for the decrease in the state revenue. Income taxes have fallen very strongly because of unemployment, and sales taxes as a result of the decrease in trade. Many other tax incomes have also fallen, e.g. car sales have collapsed, and the sale of alcoholic beverages has decreased.

At the same time the state expenditure has increased due to the unemployment benefits and welfare payments. The banking sector is consuming a large amount of state funds. The Finnish Savings Bank became completely dependent on public financing, and at the end of the year it was divided between the four other banks. The new special bank where the problem credits were transferred requires about FIM 40 bill. from the public sector.

The positive trends in the economy include the slow rate of inflation. In 1992 inflation was 3.0 %, and in 1993 about 2.2 %.

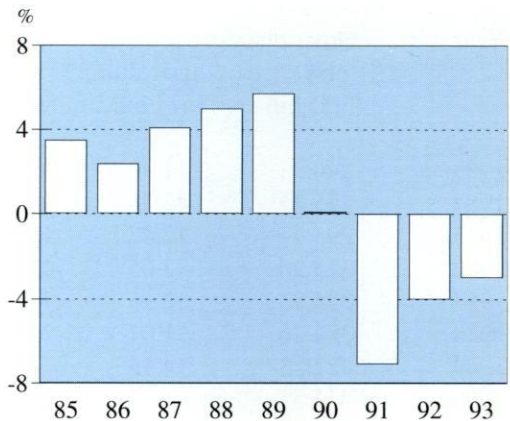


Figure 1. Growth in the volume of market price GDP in 1990 prices (%/year).

markka has been devalued by about 30 % in two years, but the prices have not risen nearly as much as was expected. The weak demand has pushed down the margins of trade and processing, and this has reduced the pressures to raise prices.

The target prices of agricultural products have not been raised. The price of food has actually decreased slightly as the producer prices have remained below the target prices.

Another positive feature is the large surplus in the balance of trade. This was FIM 12 bill. already in 1992, and as high as FIM 29 bill. in 1993. Because of this the deficit in the balance of current accounts has decreased, and in 1993 it was about FIM 5 bill. Exports continue to grow in 1994, and the balance of current accounts is expected show a surplus of FIM 10 bill. Thus the indebtedness to foreign countries can be reduced, which gives some space for the options of the economic policy.

Reasons for the depression

During the whole 1980s Finland had enjoyed a steady economic growth. A change for the worse occurred very suddenly in 1990. There are many reasons for this.

Fluctuations in the economic situation had been quite small in the 1980s, except for the last few years. The turn of the decade was very dramatic. The liberalization of the money market was probably one of the most important factors that accelerated the overheating of the economy. Consumer demand continued to grow, but it was based on borrowed money, and both private citizens and the entire national economy took on too much debt.

At the same time the Soviet Union fell apart, and the foreign trade with it collapsed. The trade with Russia and the other new states is only a fraction of the trade in the 1980s. At its highest, the share of the Soviet Union in Finnish exports was about a quarter, and now the corresponding share is only a few percentage points. However, at present some increase seems to occur in this share.

One reason for the economic growth in the

1980s and the overheating of the economy was the increase in foreign loans. The deficit in the balance of current accounts grew at an alarming rate, but the government did not react to this early enough. The deficit was a result of the weak development of the export industry. In fact, the share of the manufacturing industry in the whole national economy decreased continuously in the 1980s. Instead, the public sector grew, and it swallowed the whole labor force reserve. A shortage of labor force was expected to become a problem in the long run. This also led to wage increases, which weakened the competitiveness in the foreign markets.

Towards the end of the 1980s the private sector ran into debt very badly. The degree of savings fell from the 7 % at the beginning of the decade to almost zero in 1988. The economic growth was maintained by private consumer demand, which received additional support from the reduction of income taxation. The public sector swelled rapidly, believing that the tax revenue would cover all reforms. In 1991 the degree of savings returned to the normal level of 8 %, but this development has brought along a decrease in the demand and a deeper recession. This was necessary in order to restore the balance of payments, but the unemployed, in particular, have suffered from it.

Economic prospects

The economy was expected to start to grow in 1993, but this did not occur. The production of the whole national economy continued to decline, and unemployment grew very strongly. The growth in exports has not been enough to take along the whole economy. The private sector demand has decreased, and there has been no increase in investments. The weak demand resulting from unemployment and the decrease in real wages is probably the main cause for this. The enterprises do not find any possibilities to invest.

Restoring the balance in the economy is extremely difficult. The state is losing tax income as a result of unemployment. Domestic demand decreases, which reduces the state's tax income

further. The state expenditure should be cut, even if there would rather be a great need to increase this because of the depression. However, the deficit in the state economy does not allow any very strong measures to stimulate the economy.

Nominal wages were not raised at all in 1991 and 1992, which means that the real wages have decreased. However, the majority of the collective labor contracts were revised at the end of 1993, and in some branches of manufacturing industry, e.g. paper and metal industries, wages were raised by about 2-3 %. In some sectors the wages still did not increase at all, and in the public sector the wages were actually dropped slightly.

As a result of the increase in unemployment, the disposable income of the whole state economy fell by about 2,5 % in 1993. Taxation has been tightened, which means that the purchasing power of households has decreased. In 1993 private consumption fell by about 5 %, i.e. the same as in the previous year. The decrease is likely to continue in 1994, which slows down the growth of the economy.

Investments fell by about 15 % in 1993. Investments are already at a lower level than at the beginning of the 1980s. It has been forecast that in 1994 the investments should start to increase slightly. However, there is still a lot of unused capacity in the manufacturing industry, so that there is not yet any need for larger investments. The limits of the capacity are gradually being reached only in the export industry.

The decline of the building activity clearly below the normal level has been one of the major factors that have deepened the depression. There are a lot of vacant residential and office buildings, which means that the increase in building industry may start as late as in 1995.

The devaluation of the Finnish markka has improved the competitiveness of wood processing industry, and the exports increased by about 10 % in 1993. Felling has not increased, however, and raw timber has to be imported more than earlier. At the moment the stumpage prices are about 30 % lower than in 1990, which

weakens the timber supply. Towards the end of the year, however, the stumpage prices started to increase slightly. The low prices in the world market have been problematic to the wood processing industry. Part of the advantage caused by the devaluation has benefitted foreign countries.

The economy should start to grow slowly in 1994, but unemployment will remain at a high level throughout the decade. First, the equilibrium must be restored in the balance of current accounts and in the public economy. Investments and private consumption must begin to grow, and this forms the basis for the improvement of employment. Only the stock markets indicate that there is belief in the future: during 1993 the stock prices rose by about 90 %.

2. The Finnish farm

Finnish agriculture is based on family farms. State and municipal institutions like schools and research institutes own a few larger farms, but their significance in Finnish agriculture as a whole is very small.

78 % of farms are privately owned. However, a large number of farms belongs to pensioners or heirs, and only about half of the farms are owned by active farmers. This group is also likely to include a number of farmers who get their living mainly from other sources than agriculture. Full-time farmers own only 42.3 % of farms, and the share of part-time farms was 18.6 % in 1992.

In 1992 about 17.6 % of private farms were owned by pensioners. At that time, private persons owned 77.8 % of farms, heirs and family companies 21.0 %, corporations and cooperatives 0.5 %, and the state, municipalities and congregations 0.6 %. The share of farms owned by heirs has increased slightly. This is significant for agricultural policy because these farms have the lowest productivity, and their existence slows down structural development.

According to the Farm Register of 1992, there

Table 2. The distribution of farms into farm size classes and the average farm size (over 1 ha).

	1959		1980		1992		1992 ¹⁾	
	1000	%	1000	%	1000	%	1000	%
1-4.9	147.6	44.6	69.4	30.9	68.0	34.4	18.7	15.4
5-9.9	101.8	30.7	69.2	30.8	42.5	21.5	24.4	20.1
10-19.9	62.2	18.8	56.8	25.3	46.3	23.4	38.7	31.9
20-49.9	18.0	5.4	26.4	11.7	35.7	18.1	34.4	28.4
50-	1.6	0.5	2.9	1.3	5.2	2.6	5.1	4.2
Total	331.2		224.7		197.6		121.3	
Arable land area 1,000 ha	2 614.4		2 462.7		2 580.0		2 195.6	
Farm size, ha	7.89		10.96		13.05		18.06	

¹⁾ Producing farms

Source: The Agricultural census of 1959, the Farm Register of 1980 and the Yearbook of Farm Statistics 1992/93.

were altogether 197,627 farms with over 1 hectare, and the average farm size of these was 13.1 ha. However, agricultural production was practiced on only 121,300 farms, and their average farm size was 18.1 ha.

Every year a good number of small farms quit production, but in other respects structural development is slow. The number of large farms has not increased very much, and there is

very little amalgamation of farms. In practice, it is possible to increase the farm size through renting arable land. This has been on the increase, and in 1992 altogether 368,400 ha, i.e. 14% of the arable land area was rented. The average rented area was 8.8 ha.

Forest is an integral part of a Finnish farm: an average farm has 13 ha arable land and 49 ha forest. However, the regional distribution varies. In general, the arable land area is larger and, correspondingly, forest area is smaller in the south than in the north (Table 3).

Finnish agricultural production is mainly based on livestock. Only 15 % of arable land area is used for crop production for human consumption. Milk production accounts for about 30 % of the total return of agriculture, and the share of cattle production rises to about half of the total agricultural production when beef production is taken into account. Consequently, the share of hay, silage and pasture is about a third of the total arable land area.

Production structure has changed in the course of time so that the share of milk has decreased, whereas that of meat has increased. The specialization of agriculture accelerated especially in the 1960s and 1970s. Earlier almost all farms produced milk, but in October 1993 there were only 34,400 milk suppliers

Table 3. Arable land and forest areas in different parts of Finland in 1980 and 1992 (ha/farm).¹⁾

	Arable land and gardens		Forest land	
	1980	1992	1980	1992
Uusimaa	18.2	20.2	28.2	30.4
Häme	14.1	16.1	31.0	39.1
Kuopio	9.4	11.4	37.2	45.3
Vaasa	11.3	13.7	26.4	28.3
Oulu	9.2	10.9	45.8	84.9
Lappi	6.1	6.8	78.8	126.2
Whole country	11.0	13.1	35.5	48.7

¹⁾ In 1992 includes some forestry farms.

Source: The Farm Register of 1980 and the Yearbook of Farm Statistics 1992/93.

(Appendix 2). About half of the farms are engaged solely in crop production.

Finnish farms are highly mechanized. There is usually a tractor and other machines necessary for the production line on the farm. According to an estimate, there are about 234,000 tractors and 49,000 combine harvesters. Calculated per hectare, the level of mechanization is quite high. Almost all dairy farms have a milking machine.

3. Other rural industries

In addition to agriculture and forestry, farmers practice many other industries, e.g. horticulture, fishing, fur farming and farm holidays. An overview of these industries in 1991 and 1992 is presented in the following. No statistics from 1993 are available, and, on the whole, the statistics on these industries are incomplete.

This publication is mainly concerned with agriculture proper, which in Finland includes only outdoor garden production, and *greenhouse production* is excluded. In 1988 the value of greenhouse production was about FIM 1.28 billion, the share of vegetables (mainly cucumber, tomatoes and lettuce) being about FIM 590 million and that of flowers about FIM 690 million. About 3,300 entrepreneurs were engaged in greenhouse production, and the greenhouse area was 475 ha. Thus the average greenhouse area was about 1,442 m². This whole field employs more than 13,000 permanent workers, and more than 13,000 workers as a seasonal labour force.

Greenhouse production does not receive any actual state support. However, imports are regulated through import levies and licenses. The prices of cucumber, tomatoes and lettuce have stayed almost at the same level or decreased slightly from the 1980s, which means that the real producer prices have decreased considerably.

In 1991 there were about 4,120 *professional fishermen* in Finland (1,350 full-time and 2,780 part-time). About 70 % practice their trade at sea. The number of fishermen has been

decreasing rapidly. Most fishermen are part-time farmers.

In 1991 the value of the catch of fish was estimated at FIM 175 million. In addition, aquaculture produced fish (mainly rainbow trout) for about FIM 357 million in 1990. Occasionally rainbow trout is also an important export article. In 1990 10 % of the total production of 18.3 million kg was exported. The value of planting production, which is important for improving the stock of fish, was FIM 100 million in 1990. The increased management of water systems has probably also improved the catch of fish. Many farms are located close to a lake, which makes fishing for household use possible.

An especially important side-line for agriculture is *fur farming*, which is also practiced on its own. In 1991/92 there were 3,354 fur farms in Finland, of which about 60-70% were located on farms. The value of fur production was about FIM 1.0 billion in 1988, and, including all its indirect effects, fur industry employed annually about 25,000 people. Fur production is mainly concentrated in Ostrobothnia, where about 3/4 of fur farms are located. The most important fur animals are mink, silver fox, blue fox, fitch and finnraccoon.

However, the past few years have been very difficult for fur farming. The collapse of the world market prices has forced many fur farms to stop their production. The depression may be over in fur farming, as the prices of both mink and fox pelts rose as much as 50 % in the last auctions of 1993.

Finland has been the leading fur producer in the world. The production is mainly exported. In 1988 the value of exports was about FIM 1.0 billion, but in 1991 this had dropped to only about 590 mill. In 1989 57 % of the world's fox pelt production came from Finland. Mink accounts for about 46 % of the value of our fur production, but the share in the world market is less than 10 %.

Fur farming is subsidized very little. Fur farms can buy feed (including domestic feed grain) for the world market price. In other respects this field has to adapt itself to the

changes in the world market, which may be great. However, Finnish producers have tried to adapt themselves to international competition through breeding.

Reindeer herding is the main source of livelihood for about 800 households in Lapland. In addition, in about 1,500 households it is a very important secondary occupation. In the herding year 1991/92 there were about 7,320 reindeer owners. At reindeer round-ups in 1991/92 there were about 410,000 animals, of which 169,000 were slaughtered. Meat production was 4.2 mill. kg, and its value was about FIM 97 million. Reindeer meat has mainly been consumed in Finland, and hardly any is exported.

In 1992 there were about 48,000 horses in Finland, and about 40 % of them were on farms. The number of horses has increased in the past few years, although they are very rarely used in farm work. *Horse husbandry* is practiced on about 6,000 farms, and on 550 farms it forms the main production line. Horses are mainly used for riding and trotting. On the farms horse husbandry employs 1,300-1,400 people full-time and about 5,000 part-time. The value of the production of horse husbandry on farms is estimated at about FIM 230 million.

Beekeeping provides additional income to

about 5,000 beekeepers. In 1992 altogether 1.7 mill. kg honey was produced, and its value was about FIM 48 mill.

Wild berries (cloudberry, blueberry and lingonberry) are an important source of income for many people, especially in northern Finland. In 1990 this income amounted to about FIM 52.1 million. In addition, there is the value of the berries used in households. The income from picking mushrooms was about FIM 6.8 million in 1990.

In 1991 about 10.1 mill. kg wild berries and 0.5 mill. kg mushrooms were picked up for sale.

Farm holidays have also become an important side-line industry to agriculture. About 5,000 entrepreneurs are offering farm or summer cottage holidays, and about half of them are farmers. This activity includes restaurants and feasts, and has expanded year by year. The return of all holiday and traveling services is estimated at FIM 60 million. Compilation of statistics is difficult because this field is very heterogenous.

In addition to the side-line industries that are close to agriculture, it is possible for farmers to practice other industries, too. These small-scale enterprises have received subsidies and loans from the state.

II PRODUCTION, PRICES AND FARM INCOME

4. Crop production

4.1. Weather conditions

After the mild winter, the snow melted early, especially in Southern Finland. Spring sowing was completed in good conditions about a week ahead of the normal in a beautiful sunny weather. In the beginning the growing season looked very promising. However, the situation changed later on in the spring. In May it was warm but very dry. The weather got cooler in June, and together with the drought this slowed down the growth of crops.

In May the temperatures were clearly above the average, but after this they remained below the normal, especially during the latter part of the summer. In Southern Finland the effective temperature sum of the whole growing period was slightly below the normal, and in Eastern and Northern Finland it was about 10 % below the long-term average. There was some frost in the early part of the summer, but the damages remained small.

The rains were very unfavorable for the development of crops. The spring and early part of the summer were very dry in almost all parts of the country, but the precipitation was high in the latter part of the summer. The amount of precipitation during the whole summer was normal, but it was unevenly distributed.

Thus the weather conditions seemed unfavorable for growth. However, the cool temperatures in June were in fact quite favorable for the sprouting of grains, and the drought in May did not cause any major damages, either.

As a result, in terms of the quantities the grain crop was above the normal. Regional differences were not as great as in the previous year. The growth of pastures, hay and silage was slow in the early part of the summer, but the rains that started in July improved the situation to some extent.

Fall sowing was completed in satisfactory conditions. Because of overproduction, only about 8,100 ha of rye was sown, which is clearly below the area that would be needed to meet the consumption (about 50,000 ha). There is still a lot of rye in stock for the coming years. The area of winter wheat was 12,800 ha, which is 30% less than in 1992.

4.2. Areas and yields

Because of land clearing, the arable land area grew by about 60,000 ha at the end of the 1980s.

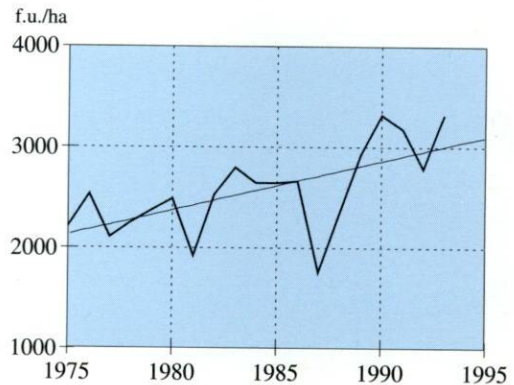


Figure 2. Total yield without straw in 1975-1993, f.u./ha.

Since 1989 the total arable land area has been on the decrease, and in 1993 it was 2,50 mill. ha.

The cultivated area decreased very strongly in 1989-92 as a result of fallowing. In 1993 a slight deviation from this trend occurred. The area of premium fallow was altogether 450,000 ha, which was 50,000 ha less than in the previous year. Other area under fallow grew by 23,000 ha, however, so that the cultivated area increased about 30,000 ha from the previous year. In 1993 the area under cultivation was 1.75 mill. ha.

No major changes occurred in the area under grains. The area under bread grain increased slightly, but the area under barley decreased correspondingly. According to the statistics, the area under hay and silage grew about 20,000 ha. The area under sugar beets and oil plants was about the same as before. Their production is based on cultivation contracts, which prevents annual variations in the areas. The area under potatoes has also become established at the present level.

Table 4. Harvested areas and yields of main crops in 1992 and 1993¹⁾.

	Area 1000 ha	1992 Yield 100 kg/ha	Total mill. kg	Area 1000 ha	1993 Yield 100 kg/ha	Total mill. kg
Winter wheat	12.3	28.6	35	18.1	34.3	62
Spring wheat	75.6	23.4	177	80.9	36.6	296
Rye	10.6	25.0	27	22.7	27.7	63
Barley	472.9	28.1	1331	457.7	36.7	1679
Oats	330.7	30.2	998	330.6	36.4	1202
Potatoes	34.9	192.9	673	36.4	213.5	777
Sugar beets	32.4	323.8	1049	32.9	302.7	996
Hay	219.7	35.2	774	228.9	40.1	918
Green fodder	37.6	158.0	594	37.9	178.4	676
Silage	267.8	171.4	4589	280.2	190.5	5337
Oil seeds	72.5	18.3	133	69.4	18.4	127
Other crops	62.5			56.6		
Total	1629.5	2786 ²⁾	4475 ³⁾	1652.3	3316 ²⁾	5403 ³⁾
Pasture	128.5			131.7		
Premium fallowing	508.9			450.4		
Other fallow	19.6			43.3		
Other arable land	226.5			225.8		
Arable land, total	2513.0			2503.5		

1) A general agricultural census was made in 1990, and this has caused some changes in the statistics. The total area is larger than the area based on sampling: the earlier figure for 1990 was 2.436 mill. ha, and the new figure based on the census is 2.544 ha. This must be noted when comparisons are made with the statistics from the 1980s.

2) f.u. without straw. Feed unit norms changed at the beginning of 1990 for the part of grains. The average raise was about 2 %.

3) mill. f.u. without straw.

The hectareage yields of grains were good. The hectareage yield of spring wheat was 3,660 kg, i.e. 15 % above the normal yield, which is the highest hectareage yield ever. The yield of winter wheat was a little smaller, but it also exceeded the long-term average clearly. In

terms of quantity, the yield of bread grains was clearly higher than in the previous year, resulting from the increase in both the cultivated area and hectareage yield.

The yield level of feed grain was also good. The hectareage yield of barley was 3,670 kg and

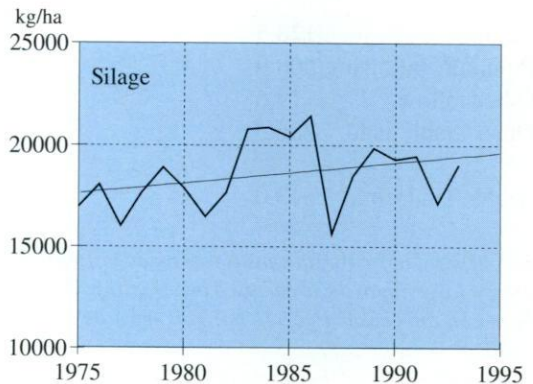
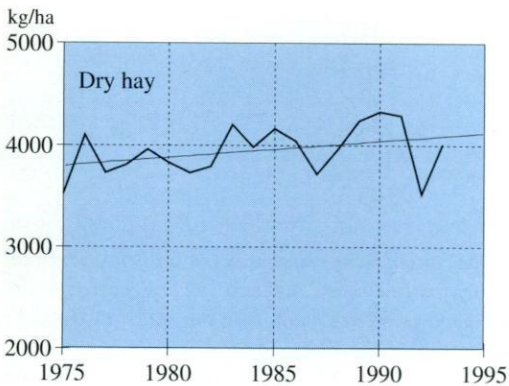
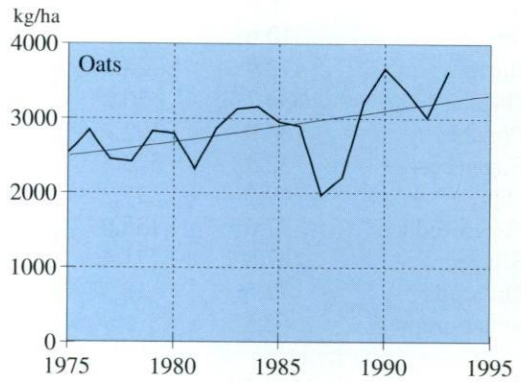
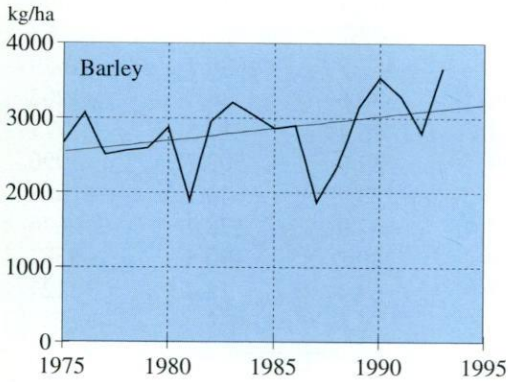
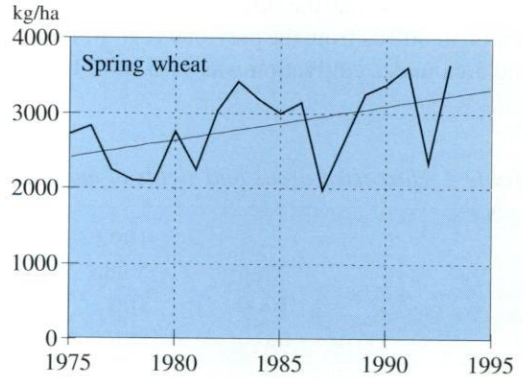
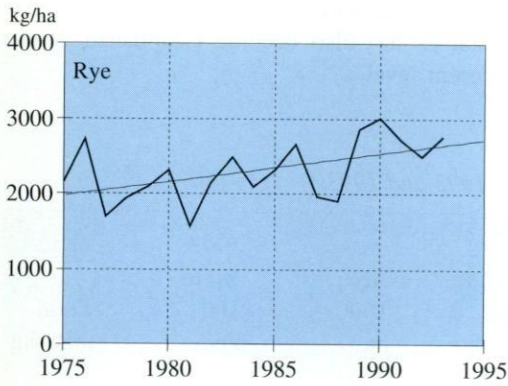


Figure 3. Yields of main crops (kg/ha) in 1975-1993.

that of oats 3,640 kg. Both yields were 400-500 kg higher than the long-term trend values, and in the case of barley the yield hit a record. The yield of feed grain was about 24% higher than in the previous year, and the production exceeded the domestic need by about 800 mill. kg. The extensive fallowing is not yet adequate to prevent surpluses. It must be noted, however, that the yield level of 1993 was higher than the normal.

The hectare yield of potatoes was higher than in 1992, which means that the supply will exceed the domestic demand to some extent. The hectare yield of sugar beets was normal, and the quantity was about the same as in the previous year. The yield level of oil plants was higher than ever.

In feed units the yield was 3,316 f.u./ha, which is clearly higher than the trend value. The total yield, 5,403 mill. f.u. was about 21 % larger than in the previous year, but comparison is made with 1992 when there were quite serious crop damages.

5. Livestock production

Livestock production continued to decrease in 1993. There was a slight increase only in egg production. Even if no active production restriction measures were in effect, the measures that were effective in the previous year still had an impact on production. As a result of these beef production decreased, too. Also, poultry meat production decreased last year.

Milk production decreased by about 10 mill. liters. No new contracts to reduce production were made in 1993, and thus the production stayed at the level of 1992 in the early part of the year. However, in the fall the production began to decrease because of slaughterings of cows, although the good feed crop would have required keeping the number of animals at the same level. However, some farmers gave up production, especially owners of small herds.

The reduction of milk production has had a great impact on the dairy industry. It has become more difficult to obtain raw material. The demand for consumer milk must be satisfied

first, which means that the production of cheese and milk powder must be reduced a great deal. The positive effects can be seen in the decrease of the export support.

Milk production still exceeds the domestic demand clearly. The consumption has decreased, and thus in 1993 the self-sufficiency level in liquid milk was about 110 %. The self-sufficiency in fat is higher than this.

Beef production was about 106 mill. kg in 1993, i.e. 9 % smaller than in 1992. This was caused by the decrease in the number of dairy cows, which results in a decrease in the number of slaughter animals. Growth of production has been maintained by the increase in the slaughter weights, but these are reaching their limits. The production is going to decrease in the future as the number of slaughter animals drops. The forecast for 1994 is 104 mill. kg.

At the moment the oversupply in beef is still great, because the consumption has dropped. However, it is to be expected that there will be a shortage of beef as the production continues to fall and the demand increases after the depression.

Pork production decreased by about 5 % in 1993. The production has been restricted by means of an export charge act, which forces to keep the slaughter weights below 76 kg. If the slaughter weight is higher, the producer has to pay a marketing charge, which is FIM 1.00/kg

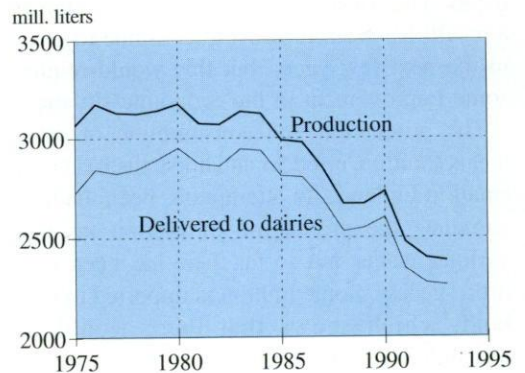


Figure 4. Milk production and the amount of milk delivered to dairies in 1975-93.

Table 5. Livestock production in 1988-93.¹⁾

		1988	1989	1990	1991	1992	1993 ^e
Milk	mill. l	2668	2668	2730	2477	2399	2374
Dairy milk	"	2531	2547	2600	2345	2274	2264
Beef,	mill. kg	111	107	118	122	117	106
Pork	"	169	174	187	177	176	168
Eggs	"	77	76	76	67	67	70
Poultry meat	"	28	30	33	37	36	35
Other meat	"	4	4	4	5	5	5

¹⁾ The hot weight reduction of meat was abolished at the beginning of March 1990. As a result, the quantities are 3 % bigger than earlier. The prices were dropped correspondingly by 3 %.

for the whole carcass. The slaughter weights have dropped to 73-74 kg, when in 1989 they were close to 80 kg. The production is expected to stay at the same level in 1994.

Egg production increased in 1993 by about 3 mill. kg to 70 mill. kg. No production restriction measures were in effect and earlier contracts were discontinued, which explains the growth in the production. Hatching has increased, so that there are pressures to increase production. Egg production is expected to stay at the present level in 1994. The self-sufficiency in eggs is still relatively high, 123 % in 1993.

Poultry meat consumption has increased quite steadily for a longer period of time. In 1992 and 1993 production has fallen slightly. The consumers have favored broiler, and the prices have been competitive compared with the other meats. The consumption, and the production as a result, has been forecast to continue to grow in the next few years, but this would require some improvement in the economic situation.

The production and consumption of other meats (mutton, reindeer and horse meat) is very small in Finland. An attempt has been made to stimulate the production of mutton through various means, but so far there has been very little success. Some mutton is imported to Finland, which shows that there would be possibilities to increase production. However, the producer price of mutton has remained below the target. The production of reindeer meat is about 4 mill. kg a year. Other meats also

include reindeer but not venison, the amount of which is about 6-7 mill. kg every year.

6. Consumption

The economic depression has been reflected in consumption. The disposable income has decreased in real terms and, on the other hand, the degree of saving has increased due to the repayment of loans. Consequently, there has been less money available for consumption than earlier. This can also be seen in food consumption.

Food prices have been quite steady in the past couple of years. The official consumer price index shows that during 1993 the food prices

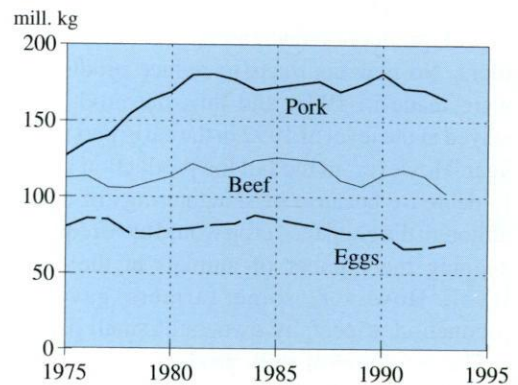


Figure 5. Production of beef, pork and eggs in 1975-93.

decreased by about half a per cent. This resulted from the lowering of the producer prices as well as the decrease in the margins of trade. Special prices have become more and more common in the retail trade.

The total consumption of dairy products decreased slightly in 1993. The consumption of liquid milk continued to fall, and, in particular, the consumption of milk with the fat content of 3.9 % decreased considerably. Instead, the consumption of skim milk increased somewhat. The consumption of other liquid milk products stayed about at the same level as before.

The consumption of actual dairy butter decreased a little, but the amount of butter consumed in various kinds of mixes increased correspondingly. The consumption figure of 5.7 kg/capita presented in Table 6 includes only the consumption of actual butter.

The consumption of light spreads is altogether about 3 kg/person. Their consumption has reached quite a steady level, and no great changes have occurred any longer. Consequently, it can be assumed that the total consumption of butter has become established at the present level.

Cheese consumption has been growing steadily year after year, but in 1993 the growth

Table 6. Consumption of dairy products and margarine/capita in 1985-93.

	Liquid milk litres	Butter kg	Cheese kg	Marga- rine kg	Butter mixes ¹⁾ kg
1985	243.2	10.9	9.6	7.1	1.7
1986	235.7	8.8	10.3	7.2	1.7
1987	232.8	8.2	11.5	7.1	2.2
1988	228.9	7.0	11.7	7.3	2.1
1989	224.7	6.5	12.5	8.0	2.1
1990	222.9	5.5	12.7	7.6	2.2
1991	215.7	6.2	12.8	7.9	2.6
1992	214.7	5.8	13.1	8.5	2.8
1993 ^c	214.5	5.7	13.0	8.6	2.9

¹⁾ butter-vegetable oil mixes

Source: MTTL, Food Balance Sheets, ETT

Table 7. Consumption of meat and eggs in 1985-93, kg/capita ¹⁾.

	Beef	Pork	Poultry	Eggs
1985	21.3	32.0	4.2	11.1
1986	21.1	32.7	4.5	11.7
1987	20.9	32.6	5.2	11.8
1988	20.8	32.7	5.6	11.6
1989	20.4	31.6	6.2	11.1
1990	21.6	33.0	6.5	11.1
1991	21.3	32.9	7.2	10.7
1992	19.7	32.4	7.4	10.9
1993 ^c	18.8	30.5	7.2	10.9

¹⁾ The consumption figures for meat are about 3% higher than earlier as the hot weight reduction has been left out.

came to an end, probably as a result of the depression. Calculated per person, the consumption is already over 13 kg, which is the same as in many European countries.

Pork consumption is about 32-33 kg per person. In 1992, however, the decrease in the income level caused a reduction in the consumption of pork by about 1.5 % in 1992, and in 1993 the consumption fell by about 3 %. This trend is forecast to continue in 1994, too. Earlier, pork consumption was forecast to rise as high as 37 kg, but this has not occurred.

Beef consumption also decreases very strongly. In 1992 the decrease was 7.5 %, and in 1993 about 4 %. Beef consumption has been on the decrease for several years. This has been caused by the change in the price relations in favor of pork and poultry meat, but in the past couple of years the main reason has probably been the decrease in the purchasing power due to the depression.

The consumption of poultry meat has been on the increase for some time, at the cost of other meats. Changes in the stocks confuse the calculation of the consumption figures to some extent. It is likely that the consumption is still on the increase, albeit slowly. Last year the increase was 2 %.

Egg consumption became established at the present level of about 11 kg/person in 1989, after a slight increase when the prices fell as a result of the dual price system. With regard to eggs, consumer habits are not likely to change very much, which means that no major changes are to be expected in the consumption. However, the statistics show that in 1993 egg consumption decreased by about 2 %.

The consumption of meat and eggs is internationally quite low in Finland. This is the case in Sweden, as well. Consumer habits have been formulated in the course of time, and they do not change very rapidly. Instead of meat, Finns consume fish and milk, and thus the share of animal protein in the consumption is at about the same level as in the industrialized countries in general. Internationally the consumption in Finland as calories (2,800 kcal or 11.7 MJ) is low.

7. Foreign trade

As self-sufficiency has been set as the objective for Finnish agriculture and the borders have been closed to foreign competition, the main function of exports and imports is to balance the variations in demand and supply. Consequently,

the task of foreign trade is to export overproduction in order to keep the domestic prices at the set level. There is very little import of basic foodstuffs. Only grain must be imported in larger quantities when the domestic crop remains small as a result of weather conditions. This was the case e.g. in 1987 and 1988.

Fruits and vegetables are imported according to demand because there is little domestic production. Coffee is one of the most important free import articles, and the import of certain tropical fruits is also relatively free. The monetary value of imports is higher than that of exports (Table 8), although overproduction is considered the greatest problem in agriculture.

The decrease of agricultural production has reduced the amount of exports to some extent. Decrease in milk production has led to a reduction in the production of milk powder, in particular, and the export has stopped almost completely in the past couple of years (Table 9). The export of butter has also decreased to some extent, but as the consumption is on the decrease, considerable amounts have still been exported. The export of cheese has continued at quite a steady level due to various contracts. It would be desirable to continue the export of cheese in its present extent, because Finnish cheeses have a very high reputation in the international mar-

Table 8. Exports and imports of agricultural products in 1984-1992 (FIM mill.).

	Exports total	Imports total	Coffee	Fruits	Beverages and tobacco
1984	2994.1	5226.5	1360.5	775.1	342.3
1985	2876.2	5388.9	1125.5	814.0	358.9
1986	2256.3	5713.2	1376.9	855.2	405.0
1987	2074.7	5798.1	990.9	978.7	401.7
1988	1815.8	5705.2	787.6	915.4	372.6
1989	2098.5	6111.3	825.5	942.1	494.3
1990	2508.7	5613.9	562.5	963.3	537.8
1991	2375.1	5794.5	562.1	1016.4	561.4
1992	2796.1	6488.4	526.2	1132.7	613.9

Source: Official statistics of Finland IA. Foreign trade.

Table 9. Exports of some agricultural products in 1983-93, mill.kg.

	Butter	Cheese	Milk powder	Pork	Beef	Eggs	Grains
1983	26.6	32.3	37.5	26.6	16.7	32.2	-
1984	20.0	37.0	41.2	20.8	19.2	35.4	811.3
1985	18.6	37.0	40.1	17.8	21.5	32.9	561.0
1986	14.9	34.5	33.9	10.2	21.3	25.1	664.3
1987	21.3	34.4	31.7	17.3	22.0	21.6	294.9
1988	19.2	32.5	18.4	9.2	10.5	18.6	25.0
1989	20.3	26.3	8.0	14.0	5.5	19.1	334.8
1990	35.9	28.9	25.9	22.7	10.0	20.4	513.6
1991	22.7	27.8	16.5	14.5	18.5	12.9	1113.8
1992	17.3	24.9	7.8	13.4	16.2	11.9	717.8
1993 ^e	17	25	3	14	14	15	746

Source: Statistics of the Ministry of Trade and Industry.

ket. However, the shortage of raw material makes it necessary to reduce cheese production, and thus it is to be expected that the export of cheese will decrease in the future. According to an agreement made with the EC, about 2 mill. kg cheese is imported to Finland every year, and the import from Sweden has also started.

The export of meat varies according to the amount of overproduction. The export of pork has become established at about 14 mill. kg, and it should stay at this level in 1994, too. In 1993 beef exports amounted to about 14 mill. kg. An attempt has been made to reduce meat exports by cutting the production, but the consumption has decreased correspondingly, and the attempts to abolish overproduction have not succeeded. In the past few years restaurants have required the import of some beef. There is a special agreement between Finland and Sweden on reduced import levies on meat imports.

Egg exports have been about the same in the past few of years, but last year there was some increase due to the growth in the production. The situation should be about the same in 1994, too.

Grain exports have caused a heavy burden on the economy of both the government and farmers in the past few years. In 1993 grain exports amounted to 746 mill. kg. In addition, in 1993 286 mill. kg grain was used for other purposes,

e.g. as malt barley (65 mill. kg) and as feed for fur animals (44 mill. kg).

The EEA agreement negotiated between the EFTA and the EC (EU) came into effect at the beginning of 1994. The agreement concerns agricultural production only partly. Imports of processed foods increase slightly, and it has been forecast that this is where the liberalization of the foreign trade will be seen the most clearly. At least for the time being, basic production seems to remain quite well protected. It would be extremely difficult for Finnish agriculture to adapt itself to free competition in the world market, because the cost level in Finland is too high compared with that of many agricultural countries.

8. Price settlements

Producer prices of agricultural products are decided twice a year in the farm income negotiations. According to the law, the negotiations are held between the state and the producer organizations, i.e. the Central Unions of Agricultural Producers of both Finnish and Swedish-speaking farmers.

There are two phases in the negotiations. In the first phase, the rise in costs due to the increase in the prices of production inputs is

compensated to the farmers. An agricultural price council with representatives from the state and the producers, wage-earners and consumer organizations and food industry has been appointed for this purpose. The price council prepares a total calculation of the return and expenditure of agriculture, based on the average amounts of the past three calendar years (for details, see the calculation presented in Chapter 8.1.). Current prices as well as those of the last settlement are used in this connection. According to the act, the farmers receive a full compensation for the rise in costs through a rise in the so-called target prices and in the price policy support so that the increase in the total return corresponds to the rise in costs.

The price council decides how the total calculation is made. In practice, it has included (with some exceptions) the same products and production inputs as the total calculation of the Agricultural Economics Research Institute. However, the quantities used are the average quantities of the past three calendar years, and the prices are those of January and July (with some exceptions). Consequently, the return and costs of the calculation do not represent the real figures of any year.

Target prices are set for milk, pork, beef, mutton, eggs, rye, wheat, feed barley and feed oats. Producer prices of other products may fluctuate freely, but the changes of prices are taken into account in the total calculation. Target prices should be realized completely. In the spring settlement a calculation is made which shows deviations from the target prices both for the part of different products and as a total amount. In 1991 the shortfalls had to be credited or excesses deducted for the part that they exceeded one percentage point. In connection with the previous act, the deviation was taken into account in full, but in 1992 and 1993 this was the case only if the deviation was more than 2%. This correction is returned to the prices in the following year. Retroactive payments that are paid afterwards are also taken into account in the price settlement, so that it is not possible for farmers to get additional price through these.

In the second phase the raise of farm income is negotiated. Farm income is a compensation for farmers' labor input and own capital (interest on loans is taken into account in the cost calculation). In the earlier acts the raise of agricultural income was tied to the development of the general income level or to the income development of rural wage earners. This is no longer the case, but the negotiators can freely decide upon the raise of farm income. In practice, the general labor market settlements are still followed, agriculture being considered a kind of a low wage sector, and the raise of income has been determined in the same way as in the other sectors of the national economy. An attempt has been made to raise the income on the basis of a calculated hourly wage, and the overall increase in farm income is then determined for the whole agriculture, based on the total labor input in agriculture. Because the settlement is always an outcome of negotiations it cannot be described by any particular formula.

In the negotiations on prices, the average raise of prices is decided first. Then the raise is transferred to the different target price products, and in this connection it is possible to use price policy as a means of production policy by changing the price relations. In practice, there are many cases in which the price of a certain product has been raised considerably in order to stimulate production (e.g. wheat and rye).

Maintaining the price level

In order to make the producer prices reach the target prices or at least come as close to them as possible, the state interferes with the price formation in various ways. Up to 1988 the Commerce and Industry Board confirmed the maximum retail prices of dairy and grain products, and in determining these, the changes in the costs in collecting, processing and trade were taken into account so that the prices paid to producers were in accordance with the target prices. The prices of certain meat products were also regulated. All price regulation was abolished in October 1988, and since then the formation of the retail prices of the aforementioned

products has also been free.

In the case of meat and eggs, the price formation has always been free. However, the state regulates the supply by granting export and/or import licenses. If the producer price falls too much, export licenses are granted to reduce supply and raise the price. Similarly, it is possible to lower too high producer prices through imports.

Export support is an essential part of the price policy. To prevent the producer price from dropping below the target price, the difference between the target price and the export price is compensated to agriculture, in practice, to export companies, which are mainly cooperatives, i.e. owned by farmers. In the case of imports, correspondingly, an import levy is collected, through which the world market price is raised to the domestic price level. A dual price system, which means the equalizing of the difference between the lower world market price and the higher domestic price, is applied in connection with the import of grain, sugar and oil seeds.

In the following chapter, the price settlement is illustrated by presenting the settlement of spring 1993 in detail.

8.1. Spring price settlement

The rise of costs since the fall price settlement of the previous year (i.e. the cost level in July) is calculated in the spring price settlement. In many recent years, however, no correction has been made in the fall because inflation has been low. This was also the case in the fall of 1992, and, consequently, the cost calculation was made from the level of January 1992 to that of January 1993.

Table 10 presents the main points of the spring price settlement. First, the return on the target price products is presented by means of the target prices of the previous settlement and the average production quantities. Target prices are the same at both points of time, and thus the totals are the same, as well. This return is needed in order to calculate the total return and, later, the farm income.

Next, the calculation shows the increase in the return on the non-target price products (potatoes, sugar beets, oil plants, poultry meat and malt barley). Their prices fluctuate freely according to market forces, although the prices of oil plants and sugar beets are agreed on in the negotiations. The final producer price of sugar beets is determined on the basis of production, because the basic price is determined for a certain quantity of production, and a lower price is paid for the excess. An attempt has also been made to regulate the price of potatoes, but this has not been very successful. In addition, the calculation includes the changes in retroactive payments, rent income and support.

All products must be included in the calculation because it is not possible to determine the costs of target price products and those of other products separately. Compensations for crop damages are also included in the calculation as their amount is decided on every year, and at the same time an agreement is made on the share of the compensations that is to be considered income of agriculture.

An attempt is made to prepare the cost calculation so that it covers all aspects of agriculture proper. However, this cannot be fully accomplished because it is difficult to separate e.g. the building costs of vegetable production under glass from the statistics. Part of the agricultural machinery can be used in forestry, and this is also difficult to estimate.

The compilation of statistics on some production inputs is easy, e.g. feed and fertilizers. In the case of machinery, implement and building costs there are problems e.g. for the part of depreciations, because the change in them is difficult to determine. Depreciations can be calculated according to either taxation or national income statistics. In the former method depreciations are determined on the basis of the purchase price, and in the latter on the basis of the resale price. Due to inflation, these methods result in different figures. Usually, depreciations based on the national income statistics have been applied, but in the settlement of 1990 a method that was close to the taxation practices was applied.

Table 10. Return and cost calculation of the price settlement of spring 1993.

	Level of spring 1992, FIM mill.	Level of spring 1993, FIM mill.	Change %
Return			
Target price products	18096.0	18096.0	0.0
Other products	2660.3	2643.7	-0.6
Rent income	780.3	781.6	0.2
Retroactive payments	286.6	224.3	-21.7
Support, total	3934.7	3934.7	0.0
Compensation for crop damages	50.0	50.0	0.0
Total	25807.9	25730.3	-0.3
Costs			
Fertilizers	1242.2	1229.2	-1.1
Purchased feed	2624.8	2547.5	-2.9
Wages	614.1	678.7	10.5
Machinery and implements	4162.2	4461.8	7.2
Buildings	1109.6	1088.6	-1.9
Interest on debt	2037.2	2025.5	-0.6
Overhead costs	1474.0	1522.4	3.3
Rent	718.4	727.0	1.2
Other costs	2492.5	2659.5	-6.7
Total	16475.0	16940.2	2.8
Deduction of correction made for the shortfall of target price products in 1991	381.5		
Farm income	8951.2	8790.2	-1.8
Decrease of farm income		144.5	
Shortfall of target price level 1992 (over 2%) 1.54 %		279.1	
Need for raise from the return and cost calculation		423.6	

Estimating the overhead costs is also difficult. Taxation statistics are used in the calculation, and these have to be relied on for the part of certain other production input amounts, too. The problem with taxation statistics is the delay. Only one part of the final annual statistics is available for the calculation, and the others must be estimated.

Price statistics are easier to prepare than those concerning the amounts of production inputs. However, there are problems in assessing the

real prices farmers actually pay. Various kinds of reductions are granted to the list prices, and these should be taken into account. In the case of fertilizers, the reductions have been accounted for by following the wholesale prices. For the part of feed, the follow-up of wholesale prices was started in 1987, but as the real prices seem to be even below these, the price level has been dropped further, according to research results. The prices of machinery are also likely to involve considerable reductions, but these have

not been studied yet, and, consequently, it has not been possible to take these into account in the calculations. In summer 1991 the stores dropped the list prices by about 15%, and this change was transferred in full to the prices in connection with the fall price settlement. After this correction, the prices of machinery should be close to the prices farmers actually pay for it.

The agricultural price council followed the earlier principles in preparing the calculation. No list prices were available for feed, and thus the earlier method for determining the prices of feed could not be applied. The list prices had been used to determine a certain level first, and this had then been lowered by the amount of the reductions. However, this method can be disputed because the reduction percentages were not applied in full. As in 1993 no list prices were available, the prices arrived at in the studies were applied directly. The change was estimated on the basis of the prices of the first and latter parts of 1992. Consequently, the change of only half a year was applied, although in principle the calculation was made from January 1992 to January 1993. The change in the return on the other products was no longer taken into account in preparing the price calculation. This was based on a revision of the act. As a result, FIM 16.6 mill. was excluded from the need for raise.

The increase in the costs amounted to FIM 465 mill., i.e. 2.8 %. This was mainly caused by the rise of the machinery and implement cost by about FIM 300 mill. and the cost of fuel and lubricants by FIM 160 mill. The wage cost also increased considerably (10.5 %). The decrease in the prices of fertilizers and purchased feed had the opposite effect.

Retroactive payments

Cooperative enterprises do not make profit, but they pay the excess of their activity at the end of the accounting period as so-called retroactive payments, determined by the sales amount of each member. In the case of milk these have been quite significant, e.g. in 1990 the retroactive payments amounted to almost FIM 0.10/liter.

By means of retroactive payments it would be possible to pay higher producer prices. Due to

Table 11. Retroactive payments in the price settlement of spring 1993.

	1991 amount mill.kg	1990 payments p/kg	1991 payments p/kg
Milk, mill.l.	2466.11	9.81	7.89
Beef	119.02	18.41	9.00
Pork	180.02	10.17	4.79
Mutton	1.11	19.65	8.36
Eggs	70.27	4.37	14.25
Veal	0.03	14.19	8.32
Poultry	35.39	3.03	0.66
Horse meat	0.87	10.04	5.72
Total, FIM mill.		286.6	224.3
Change, FIM mill.			-62.3

¹⁾ This calculation was made for the settlement of fall 1992, and it concerned the retroactive payments paid in 1991.

this the act includes a stipulation, according to which the change in retroactive payments must be taken into account in calculating the compensation for costs. Retroactive payments are paid at the end of the calendar year, and the statistics are not ready for the spring price settlement. Thus these payments are taken into account in connection with the fall price settlement. As in the fall of 1992 no price settlement was made, retroactive payments were transferred to the settlement of spring 1993 (Table 11).

Realization of the target prices

The realization of the target prices is taken into account in the spring price settlement. For this purpose a calculation is made on the deviation of all target prices during the pricing period. Earlier this deviation was taken into account in full in the calculation so that the shortfall was compensated for and the excess was deducted from the need for raise for the next pricing year.

However, the act has been changed so that in 1991 the deviation was taken into account only for the part that it exceeded 1 percentage point. In 1991 the deviation was altogether 3.09 % and

the target prices were raised by 2.09 %, i.e. FIM 381.5 mill. for 1992. This amount was deducted from the need for raise for 1993.

In 1992 the act was changed again so that only the part of the deviation exceeding 2 % is taken into account. The deviation of the producer prices from the target prices was 3.54 %, and thus the target prices had to be raised by 1.54 %, i.e. FIM 279.1 mill. in 1993.

Cost compensation

Consequently, the cost compensation according to the calculation of the price council was:

	FIM mill.
change in the return	61.0
change in costs	465.0
deviation of prices in 1991	-381.5
deviation of prices in 1992	<u>279.1</u>
total	423.6

The total of the agreement on farm income was FIM 310 mill. As usually, the components of this total are difficult to trace. The state economy required a settlement like this, and the justification for it had to be found.

In preparing the calculation, the increase in the prices of fertilizers by 2 % in April 1993 was taken into account. The base rate of the Bank of Finland fell by 1 percentage point in February, and this was also taken into account in the calculation. For the part of the cost index for machinery and implements, the figure 110.2 used in the calculation was replaced by the figure 107.86, which lowered the need for raise by FIM 98.86 mill.

In addition to the support, various kinds of measures of the social policy are realized through the state budget, and these are difficult to analyze. The state participates in the costs of the vacation systems by over FIM 500 mill. The share of agriculture in the financing of pensions, accident insurance, etc. is also decided in connection with the income settlement. The employee pension payment (3 %) introduced in 1993 is realized so that it is considered farmers' income, because they do not pay it in connection

with taxation, like wage earners. There are also other items that can be considered income, and that are paid through the state budget. In 1992 it was agreed that FIM 480 mill. is used for balancing production by including it at the same time in farm income. A decrease of FIM 85.3 mill. had occurred in all the aforementioned amounts, and farm income had to be raised by this amount.

The need for raise by FIM 310 mill. was formulated as follows:

	FIM mill.
Calculation of the price council	423.60
Changes agreed on in income negotiations:	
1. machinery and implement cost index 107.86 effect on the need for raise	-98.86
2. increase in fertilizer prices 2 %, effect	24.58
3. decrease of base rate 1 %, effect on credits from credit institutions	<u>-124.62</u>
	-198.90
Settlement according to income agreement	224.70
Decrease in amounts included in farm income	<u>85.30</u>
Settlement including all amounts	310.00

Price settlement

Income settlement should be completed by the end of February so that the new target prices could come into effect at the beginning of March, as prescribed by the act.

At the last stage of the negotiations the amount reserved for the raise in the target prices is divided to different products. Through the increase in the prices, an attempt is made to develop the income level in different production lines, which means that raises are usually necessary in the case of all products. The negotiators have calculations on the development of costs in different production lines at their disposal, and this data serves as the starting point for the raises. The market situation also influences the settlement.

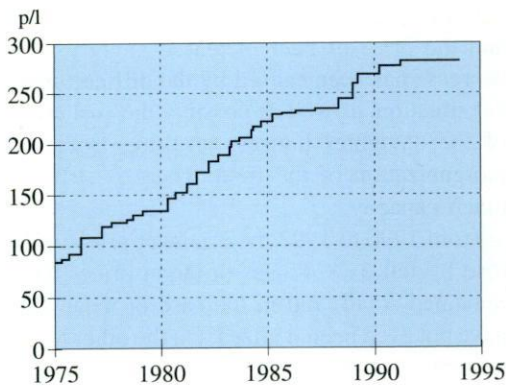


Figure 6. Target price of milk in 1975-93.

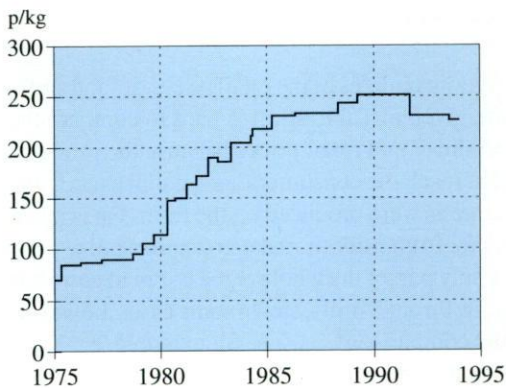


Figure 7. Target price of wheat in 1975-93.

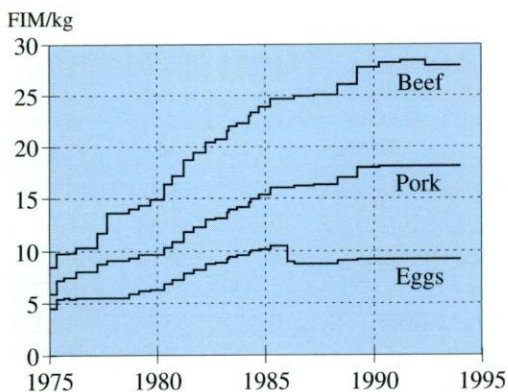


Figure 8. Target prices of beef, pork and eggs in 1975-93.

It was decided that the price settlement would be realized by increasing the state support by FIM 310 mill. Thus there would have been no need to change the target prices. In reality, the prices of all grains were dropped by FIM 0.05/kg, because the settlement included an agreement on the financing of the agricultural exports. It was decided that FIM 320 mill. of the funds directed to the state support according to the Farm Income Act will be used to cover the share of agricultural producers in the export costs. In addition, the additional price for eggs was lowered by FIM 0.30/kg from April 1st. The collection of the export cost share directly from the support reduces the need to collect export cost charges, but it has no direct effect on farmers' incomes.

For the pricing year 1993/94 the price of malt barley was set at FIM 1.99/kg (a reduction of FIM 0.05/kg) and the price of potatoes at FIM 1.23/kg.

8.2. Fall price settlement

In the fall price settlement, the change of costs due to the changes in the prices of production inputs is determined, and target prices are corrected correspondingly. The fall settlement is much more limited than the spring settlement. Incomes are not negotiated at all, and the change in capital costs is taken into account only once a year, in the spring settlement.

From January to July the costs had increased by FIM 250.7 mill., i.e. 1.5 %. Inflation has been slow both in agriculture and in the whole national economy. However, there are some exceptions: the prices of plant protection chemicals had risen by 8.2 % and the price of electricity by 8.4 %

For the part of return, only the change in retroactive payments is taken into account in the fall price settlement. It is not possible to do this earlier, because the statistics are not complete. Retroactive payments had decreased FIM 20.4 mill. Thus the calculation of the return and cost compensation of the fall was as follows:

Decrease in costs	FIM 250.7 mill.
Retroactive payments	FIM 20.4 mill.
Need for raise	FIM 271.1 mill.

The need for change in the target prices and price policy support would have been FIM 271.1 mill. The change in the target prices is realized in the fall settlement only if the change in the target prices and price policy support is over 2 %. This time the change was only 1.2 %, and the target prices were not changed at all.

8.3. Producer prices

Target prices (see Appendix 7) do not give a fully accurate picture of the return farmers get for their products, including all subsidies. For example, in 1992 the production support was, on the average, 32 p/l. Thus the average producer price of milk was FIM 3.17/l.

Table 12 presents the development of the producer prices of the most important products in 1984-1993. Export cost charges have been subtracted from these prices.

It is remarkable that the producer prices of meat have been on the decrease since 1989. In

1992, however, the changes were very small, and the price of beef increased slightly. The decrease has been caused by the difficult market situation, as well as possibly the cost crisis of the slaughter houses, resulting from the reorganization of the field. There is still too much capacity.

From 1990 to 1993 the producer price index rose by fell 5 %. Raises in target prices have remained small, and in the case of meat they have not even been realized. On the other hand, hectareage subsidies and hectareage support have risen. Their effect is not visible in the producer prices.

8.4. Retail prices

A few examples of the retail prices of food stuffs are given in Table 13. It is hard to compare the producer and retail prices because the products that reach the consumers are seldom exactly the same as were produced on the farm. Fat is taken away from milk to make consumer milk, meat is only part of the whole carcass, bread grain has gone through mills, etc. In some cases, however, the comparison is easier, for example, eggs and potatoes do not change in the market chain.

Table 12. The paid producer prices of the most important agricultural products in 1984-1993 including all subsidies (export cost charges and milk quota payments have been subtracted).

Year	Milk p/l	Beef FIM/kg	Pork FIM/kg	Eggs FIM/kg
1984	261.7	25.84	14.98	10.29
1985	273.9	27.62	16.17	10.72
1986	276.4	28.28	16.49	10.68
1987	283.3	28.77	16.52	10.71
1988	292.6	30.62	17.28	11.06
1989	312.6	32.86	18.02	11.76
1990	316.5	32.11	17.66	11.81
1991	321.2	29.44	16.62	11.86
1992	317.2	30.04	16.30	11.95
1993	321.8	29.34	16.25	11.78

Table 13. Some retail prices in September in 1991-1993.

Product	1991 FIM/kg	1992 FIM/kg	1993 FIM/kg
Milk (FIM/l)	4.11	4.04	3.90
Butter	33.12	32.70	32.14
Emmental-cheese	49.27	49.99	49.69
Beef (ground)	49.44	47.93	45.68
Pork (flank)	35.78	35.61	35.24
Eggs	17.18	17.14	16.77
Wheat flour	6.22	5.83	5.51
Sugar	7.76	7.52	7.38
Potatoes	3.12	3.54	2.78

Source: Consumer price statistics of the Central Statistical Office.

In 1993 the retail prices decreased slightly. The price of beef, in particular, has been on the decrease. From 1992 to 1993 the food prices included in the consumer price index decreased by about 0.5%.

9. Income trends in agriculture

9.1. Sources of income

Farm families earn about half of their income from agriculture (see Table 14). This data is based on the enterprise and income statistics of agriculture and forestry, the population of which included 109,600 farms owned by natural persons in 1991. On these farms there was the average of 17.8 ha arable land and 38.1 ha forest.

The average calculation distorts the view of income formation to some extent. One of these factors is pension income. In the classification according to farmers' age, over 11% of farms were owned by farmers over 65 years of age.

Income from forestry is based on taxation and, thus it does not correspond to the real income.

Wages are a significant source of income on many farms. One of the spouses may work full-time outside the farm, but it is also possible that both spouses have earned income.

Table 14. The taxable income of farmer and spouse according to source of income in state taxation in 1991.

	Income FIM/farm	%
Agriculture	61 700	42.6
Forestry	10 700	7.4
Wages	46 100	31.9
Other	9 500	6.6
Pensions	16 700	11.5
Total	144 700	100.0

Source: Income and tax statistics of agriculture and forestry 1991.

Income comparisons between agriculture and other sectors are complicated because farmers may have income from many sources. Difficulties are also caused by the fact that the members of the farm family may participate in the farm work part-time, which makes it almost impossible to divide the income from the farm between them. One way to solve the problem is to choose the farmers who earn their living mainly from agriculture for the comparison. In this case, farmers and spouses whose share of income from agriculture and forestry is over 75% of their total income are classified as full-time farmers. In 1991 there were 36 700 farms

Table 15. Development of farm income in 1985-93, FIM mill. and as an index.

	Gross- return	Total- costs	Farm- income	Index
1985	22 526.3	15 156.9	7 369.3	100.0
1986	23 273.4	15 625.9	7 647.5	103.8
1987	22 486.1	16 291.6	6 194.5	84.1
1988	24 027.5	16 469.2	7 558.3	102.6
1989	25 830.1	17 780.6	8 049.5	109.2
1990	27 525.5	18 168.0	9 357.5	127.0
1991	25 770.9	17 710.8	8 060.1	109.4
1992	24 937.1	17 582.3	7 354.8	99.8
1993 ^e	23 519.2	18 008.7	5 510.6	74.8

like this, their average arable land area was 24.4 ha, and agricultural income per person was FIM 73,670. The same year the wage income of a skilled industrial worker was FIM 102,300.

9.2. Farm income in 1993

Farmers' incomes decreased by about 25% in 1993. Production fell a little from the previous year. Producer prices also fell, but the prices of inputs rose slightly. The figure is very preliminary for many reasons, and it may change considerably when more accurate statistics are compiled.

Quantities of grains marketed fell by about 16% despite the good crop. The reason for that was that the quantities were small during the first part of the year due to the poor crop in 1992. Livestock production also decreased a lot. Meat production fell by 5%.

The use of production inputs decreased by about 2%. Fertilizers were purchased 8% more than in 1992, but there was some decrease in the amounts of purchased feed. The quantities of several inputs are only estimates, since the lag in the compilation of the data on them is long. This is the case particularly for the part of depreciation.

Last year the producer prices dropped by about 0.5%. The target prices were not raised at all, but price policy support rose to some extent. Producer prices remained well below the target prices.

The increase in the prices of production inputs was about 4%. The prices of fuel, electricity and machines rose considerably, whereas the prices of fertilizers and feed decreased slightly.

About FIM 1.46 bill. were collected from agriculture as marketing charges, which reduces farmers' income a lot. Without the costs resulting from overproduction, income level in agriculture would be much better.

The EU follows the income development of agriculture by calculating the real net value added of the whole agriculture per annual work unit. Table 16 presents a corresponding calculation for the part of Finland. The share of

Table 16. The development of the real net value added at factor cost per annual work unit AWU in agriculture in 1982-92 (1984-1986=100).

Year	Net value added	Work input	Income development
1982	91.6	111.4	82.2
1983	100.4	105.5	95.1
1984	102.0	103.2	98.8
1985	97.3	100.5	96.8
1986	100.6	96.3	104.4
1987	76.5	91.9	83.2
1988	79.2	89.7	88.3
1989	99.3	82.3	120.5
1990	101.6	75.4	134.5
1991	90.5	71.0	127.4
1992	73.9	69.7	105.9

¹⁾ The real net value added at factor cost in agriculture minus depreciations deflated by the consumer price index.

²⁾ Total labor input in AWU in agriculture according to the National Income Statistics

³⁾ The real net value added at factor cost per AWU (EU indicator 1)

the whole agriculture in the GDP according to the national accounting forms the starting point. In addition to agriculture proper, garden production, fur farming, reindeer herding, hunting, and picking berries and mushrooms are also included. The depreciations of the sector are deducted, and thus we arrive at the net value added of agriculture. This is deflated by the price index of the GDP (In the case of Finland, the consumer price index is used). Thus we arrive at the real net value added at factor cost of agriculture.

The EU employs an annual work unit (AWU), the length of which varies from country to another, as a labor input unit. In Finland, 1,860 hours is commonly used as the annual labor input in agriculture. The Central Statistical Office prepares the labor input statistics of agriculture as hours per year. When this is divided by 1,860, we arrive at the annual labor input in AWU. However, if the divisor is the

same in the whole period under consideration and only indices are used, the definition of the AWU is of no significance.

There are great variations in the real income development, mainly resulting from the variations in the yield levels. According to a rough estimate, the income level has increased by about 50 % from the beginning of 1980 till the beginning of 1990.

9.3. Taxation

Farmers pay income taxes according to their real income. For this purpose, each farmer keeps simple accounts, including sales income and the expenditure on production inputs. Capital assets like machinery and buildings are depreciated. The difference between the income and expenditure is taxable income, and taxation is carried out according to the same provisions and tax tables as in the case of income earners. The depreciations of machinery and implements can be the maximum of 25% and those of production buildings the maximum of 10% of the expenditure balance. In 1986 the depreciations of machinery and implements were 79% and those of buildings 15% of all depreciations.

The value of own products used on the farm is not counted as taxable income. An attempt is made to separate the private household completely from production. Especially the use of energy is problematic in this respect: oil and electricity are bought for both household use and production. Tax authorities have special instructions in order to be able to take this into account. The division of the interest on loans between production and the household is also problematic.

Finnish taxpayers pay both state and municipal taxes. In the municipal tax the percentage is the same for everybody (15-20%), but the state tax is progressive.

Tax deductions can be made on various grounds, and the income actually taxed may be

considerably smaller than the taxable income. In 1990 the average taxable income of farmer and spouse was FIM 144,700, and the tax on this was about 27 %.

There is a separate tax on property, which amounts to the maximum of 1 % of the value of the property. In agriculture the property used in production (except for animals and stocks) is liable to taxation, unlike in other enterprises. In practice, only large farms pay property tax because the value of farms used in taxation is clearly below their real value.

In 1993 significant changes occurred in the taxation of capital income. The tax is 25% of the capital income, independent of the source. There is also capital income in agriculture, but estimating this is very difficult. Consequently, the capital income in agriculture is calculated so that the debts are first deducted from the taxable assets, which results in net assets. The capital income in agriculture is 15% of the net assets, and the tax on this is the aforementioned 25%.

The taxation of forestry was also revised at the beginning of 1993. The owner may choose between the direct taxation of sales income and the earlier taxation based on the area. The transition period is 13 years, and after this the taxation will be based on sales income, which is regarded as capital income.

In Finland there is a sales tax of 22 % of the tax free price on almost all products. According to an estimate, the production inputs of agriculture include a sales tax of about 7.2% of the unsupported value of production. This is not returned to agriculture, which means that the production costs are higher than they would be without the sales tax.

Instead, when the sales tax on the retail price of agricultural products is calculated, primary production is excluded. This means that sales tax is carried only on the value added in the processing, delivery and trade of products. According to some estimates, the sales tax on food stuffs is about 15% of the tax free retail prices.

III AGRICULTURAL POLICY

10. Towards the EU

Agricultural policy in Finland is in turmoil because of the application for integration in the EU. If Finland becomes a member of the EU, independent agricultural policy will come to an end. The national agricultural policy of Finland will have to be harmonized with the common agricultural policy (CAP) of the EU. The policy is realized in each country, but this must occur within the framework of the CAP. It may be possible to practice independent agricultural policy to some extent, but this may not conflict with the CAP.

In the end of 1993 Finnish legislation was revised so that the shift to the common agricultural policy would be as easy as possible. The new price system resembles that of the EU, but the effects are not yet visible in 1994. The price level will remain the same, and the support is paid according to the same principles as so far. The real ability of agriculture to adapt itself will be tested when the prices decrease to the level of the EU.

The purpose of the new legislation is to make it necessary for the authorities to follow almost similar practices as in the EU. The price concepts are about the same as in the CAP, and the regulation of the import protection follows the same principles as in the CAP.

The new system should make the realization of agricultural policy more flexible. The decisions on exports could be made quicker than at present according to the market situation. There will be more flexibility in the import levy system, too. However, it will not make the consumers' wishes for lower retail prices come true.

In addition to the new Farm Income Act, there has been a lot of discussion on the reduction in

agricultural support in connection with the attempts to improve the economic situation. The price level has not been changed, but the share of the state in export costs has been lowered, and this has aroused resentment among farmers.

At least in 1994 Finland will follow its own agricultural policy, and at the same time preparations are made for the possibility of becoming a member of the EU at the beginning of 1995.

10.1. Negotiations to join the EU

The negotiations on the integration were launched in February 1992 with Finland's application for membership in the EU. The next stage was the reply of the EU to the application, i.e. the so-called avis, in which the EU examined the preparedness of Finland to start the negotiations. The EU Commission completed the avis in October 1992. The avis also included a section on agriculture, for which Finland provided data on agriculture and agricultural policy. It was noted in the avis that joining the EU is a great challenge to Finnish agriculture, because it will lead to lower prices, a lower level of support, and increasing competition. The Commission believes, however, that satisfactory solutions can be found to the problems.

Preparations for the negotiations were made by comparing the legislation of the EU with Finnish legislation in order to find out the points that required negotiating. If Finland joins the EU, Finnish legislation will have to be harmonized with that of the EU. The abolition of the border protection between the member countries is one of the most important consequences, but certain other practical changes will also be necessary.

The EU negotiations were started when Finland left the so-called position paper to the EU Commission. In this paper, the demands of Finland for the part of agriculture, among other things, were specified. After this the moods within agriculture were quite optimistic. If the demands were met, agriculture would have good chances to survive after the integration.

However, the final positions for the negotiations were quite difficult. The Commission offered very few exceptions to the agricultural policy of the EU. At the moment it looks like Southern Finland would be completely excluded from the special support, which means that it should be capable of competing with the same prices as farmers in other parts of the EU. This would present overwhelming difficulties for Finns.

10.2. The position paper of Finland

Finland left its negotiation tender (the so-called position paper) in September 1993, after continuous discussions with the Commission. In the position paper the demand was presented that the disadvantage caused by the unfavorable natural conditions must be taken into account, and Finnish agriculture should receive a so-called northern support on the basis of both the arable land area and number of livestock. The amount of hectare support asked for the total arable land area was 271-371 ecus per hectare, i.e. according to the present exchange rate (ecu = FIM 7.80) FIM 2,114-2,894/ha. These amounts are based on the maximum amounts of the support to the less favored areas (121 ecus/ha) and environmental support (154 ecus/ha for grains and 250 ecus/ha for grass).

The amounts of livestock support Finland requested to be allowed to pay were the minimum of 250 ecus (FIM 1,950) and the maximum of 600 ecus (FIM 4,680) per animal unit. These are based on calculations on the need for support in order to maintain the present income level. Minimum and maximum amounts of the regional support are presented in the position

paper, but the final regional division was left to be decided in the negotiations. The total of the hectare support and livestock support is about FIM 7.8 bill. According to estimates, the share of the EU would be FIM 2.6-3.9 bill., and FIM 3.9-5.2 would be paid through the state budget of Finland.

A further objective for Finland is to be allowed to pay national price policy support for milk as well as beef and mutton in the two northernmost support regions. The total need for support would be FIM 80-100 mill.

The negotiation objectives also included transportation support for milk, meat and eggs in all support zones, except the first one. The total amount of this support would be FIM 160-180 mill. Support is also applied for the transportation costs of feed in the northern support regions.

In addition, special support due to the northern location is applied for garden production. A number of other minor forms of support that are considered necessary for the survival of Finnish agriculture will also be negotiated.

The forms of support presented on the basis of calculations made at the Agricultural Economics Research Institute would be adequate to maintain the profitability on the milk farms. On grain and pork farms the gross margin (returns-operating costs) would decrease considerably.

However, if the hectare and regional support were left out, the gross margins would drop so much that there would be hardly any income left on farms after the capital costs have been deducted.

The Commission made a statement to the Council of Ministers on the negotiation tenders of all four countries applying for membership: Finland, Sweden, Norway and Austria. The statement of the Commission, which was not an actual reply to the applicants, aroused strong resentment in Finland as well as in the other countries. The Commission did not consider it possible to grant any forms of special support to Finland, but we should accept the "acquis communautaire" of the agriculture of the EU as such. The price level should immediately be adapted according to the open market of the EU,

and farmers could only receive support to compensate for the income losses for a short transition period.

10.3. The price system of the EU

The price system of the EU consists of separate price systems for individual products. The objective is to follow the set producer prices. The system is not as tight as in Finland, but the market forces influence the prices more. However, the Commission interferes with the market by buying oversupply into stocks, by protecting the internal market against imports by means of import levies and other means of border protection, as well as by allowing imports when the price level is too high. In addition, exports are supported by means of export subsidies.

In principle there are three prices in the price system: the target price, which the producer price should follow, and the intervention price, which determines the level below which the producer price should not drop. If this occurs, the Commission is obliged to influence the markets by purchasing products into stock or by

exporting them. The third important price is the threshold price, i.e. the level below which the prices of imported products may not drop. The target price forms the basis for determining the threshold price, i.e. when the costs of imports are added to the threshold price, the total usually comes close to the target price. The difference between the threshold price and the world market price determines the import levy.

Usually the producer price remains below the target price because of overproduction. The EU buys products into stocks for the intervention price, which is lower than the target price. In principle the export support is determined as the difference between the intervention price and the world market price. However, no immediate action is taken to interfere with the markets, but it is hoped that the markets will restore the conditions by themselves.

The system is based on decisions on the administered prices and support made by the Council of Ministers on the basis of the proposal presented by the Commission for the coming crop year. The continuity of the system is secured, i.e. no major changes are made. More extensive revisions of the system, like the MacSharry (CAP) reform are rare. The market situation and the prognoses on its development naturally influence the decision-making. There are no actual negotiations with the producer organizations. However, the different interest groups influence the decision-making process indirectly.

For the part of livestock production, the prices are determined for each production year, i.e. from the beginning of April till the end of March, and for the part of grains the prices are determined for each marketing year, i.e. from the beginning of July till the end of June.

10.4. Arrangements for different products in the EU

The EU has special arrangements for altogether 19 products, including e.g. grains, milk, beef, pork, mutton and eggs. In the following, the ones that are the most important for Finland are presented.

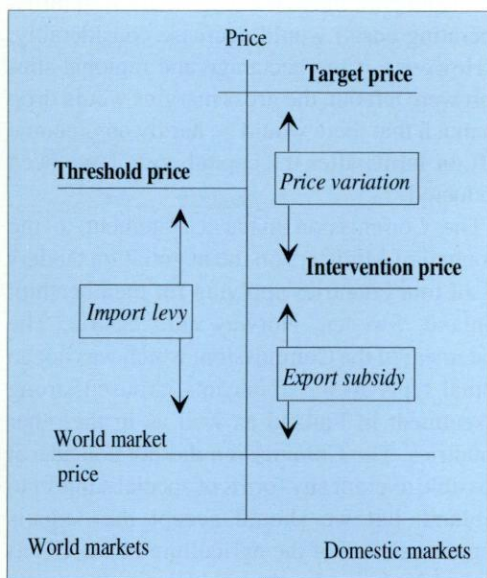


Figure 9. The price system of the EU.

Milk

In principle the price system for milk corresponds to the system presented above. Milk has a guide price, which is set for milk with the fat content of 3.7%. In the production year 1993/94 (from the beginning of April till the end of March) it was 264.7 ecus/ton. The intervention and threshold prices are set only for butter and milk powder as well as for certain Italian cheeses. The storing of dairy products is supported. Export support forms an important pricing factor.

There is no actual threshold price, but marketing levies are set for the different dairy products on the basis of the guide price for milk and the current world market prices.

Milk production is restricted by means of a dual price system. An additional levy must be paid for the amount of milk exceeding the quota, and this is 15% higher than the target price when milk is sold to dairies. However, the quotas are either national or determined for each dairy separately, which means that the additional levy does not concern individual farmers, like in Finland.

Grains

The price system for grains includes the target price, intervention price and the threshold price. The MacSharry reform, which drops the target prices by degrees close to the world market prices for grain, was launched in 1993. The income loss is compensated to farmers as direct hectare support.

In the marketing year 1993/94 the target price for wheat is 130 ecus/ton and the intervention price 117 ecus/ton. Earlier this difference was bigger. The hectare support is determined according to the average hectare yield of the region, and in 1993/94 it is 25 ecus/ton.

The reform will be completed in 1996, when the target price for wheat will be 110 ecus/ton, the intervention price 100 ecus/ton and the hectare support 45 ecus/ton.

Fallowing forms an essential part of the price system. Farmers have to leave fallow 18% of

their grain area (15% in the case of rotational fallow). In addition to the grains, oil plants, peas and beans are included in this system. Farmers are entitled to a compensation for fallowing, and the amount is the same as the compensation for the price reduction for grain, i.e. the average hectare yield times 45 ecus/ton.

Beef

The administered prices for beef are the guide price and the intervention price. The guide price corresponds to the target price, and it provides the guidelines for deriving the prices for the different kinds of meat of bovine animals. In addition, export support levies as well as duties and import levies un determining border protection are used in the regulation of prices. Import levies are determined separately for different breeds and parts of the carcass.

Pork

The setting and regulation of the price for pork is based on the idea that pork production is a form of processing grain. In principle, the price must be dependent on the price of feed. This is influenced a great deal by the price of feed grain.

For the part of pork a basic price and a sluice gate price is determined. The basic price corresponds to the target prices of grains and milk, and it is determined for a crop year on the basis of the production costs. There is no intervention price proper, but the community can interfere with the markets by buying meat into stocks if the price drops too low.

In principle the import protection is calculated by means of the feed costs of the community. In practice, however, it is divided into two components: the sluice gate price and the import levy. The sluice gate price is a calculated world market price for pork, which is determined on the basis of the world market price for feed. The import levy is calculated by means of the difference between the price of feed grain in the community and the world market price for feed grain. Thus the pork producers of the

community are put on the same line with their most efficient competitor.

As the prices of grains decrease because of the MacSharry reform, the import levy for pork will also drop, causing the price of pork in the internal market to decrease. The basic price for pork is 1,897 ecus/ton. The producer price usually remains clearly below the guide price.

Eggs

The price system for eggs is the same as for pork. The highest costs result from the use of feed, which means that the price of feed (feed grain) must influence the producer prices of eggs.

11. Outlines of Finnish agricultural policy

If Finland becomes a member of the EU, Finnish agricultural policy will no longer be independent, even if policy of our own could be practiced to some extent. However, with respect to many issues, Finnish agricultural policy is consistent with that of the EU. Both Finland and the EU are protecting their agriculture against foreign competition by means of import levies and supporting the export of overproduction by means of various kinds of export subventions. In addition, various forms of support are used to develop farmers' income level.

Various kinds of measures to regulate or restrict production are characteristic to the production policy of both Finland and the EU. Different forms of support are being applied to develop the structure of agriculture.

The most essential difference between the agricultural policy in Finland and in the EU is the fact that in Finland the price and support levels are clearly higher than in the EU, and this will present the main difficulties in the integration. There are differences in the marketing and price systems, but these can be abolished. In fact, the new legislation aims at harmonizing

the systems, and after this the problem that remains is the adaptation to the lower price and support level.

In the following, a brief outline of the objectives and means of the current agricultural policy in Finland is presented.

11.1. The objectives of agricultural policy

Agricultural policy consists of objectives and means to achieve them. According to the "Agriculture 2000" commission, the central sectors of agricultural policy are:

- production policy
- structural policy
- income policy
- employment and inhabitation of the countryside

All these sectors involve their own objectives and means.

The production objective is to reach a production level that in the long run corresponds to domestic consumption. Due to seasonal variation, the "Agriculture 2000" commission approved a certain amount of overproduction as the production objective, especially in milk production. Membership in the EU and the GATT settlement may make it necessary to reduce overproduction, but self-sufficiency will be retained as the objective of Finnish agricultural policy.

The self-sufficiency objective is based on the aim of securing food supply in all conditions. Maintaining agricultural production is also considered important for employment, regional policy and inhabitation of the countryside. This has been emphasized in the negotiations for the membership in the EU, too.

Structural policy is founded on the idea that agriculture is based on family farms. An attempt is made to improve the productivity and reduce production costs by increasing the farm size. However, so far it has been necessary to restrict the growth of farms in order to reduce production and to keep the rural areas inhabited. The objective has also been to support

diversified industrial activity in the rural areas.

The objective of income policy is to guarantee the agricultural population a just income level in relation to other population groups. Disparities due to the location of farms and the farm size are equalized through the means of price policy. An attempt is made to bring the social security of farmers on an equal level with other population groups. The development of the income level is secured through price policy, the Farm Income Act being the most important means.

Inhabitation of the countryside concerns the relationship between agriculture and the society as a whole. Decrease in the rural population causes problems, especially in the sparsely populated areas. Maintaining the viability of the countryside is regarded as desirable, and, consequently, the side-line industries of agriculture and other industrial activities in the countryside are supported in order to achieve the general objectives of the social development policy and regional policy.

11.2. Other objectives

In addition, agricultural policy has other objectives that have been put forward in the discussions on agricultural policy or in its realization. These include, among other things, reasonable consumer prices, pure food stuffs, and, in general, protecting the environment.

Consumer prices have been considered high in Finland for decades. The main objective of the price policy of agriculture is to develop the producers' income level. Consequently, it is not possible to take the consumers' point of view into account very well. However, part of the need for raises in the prices have been realized through support, which means that, in fact, the consumer prices have been subsidized. The sales tax on some agricultural products, e.g. milk and dairy products, has been abolished either partly or completely by means of a so-called reduction for primary products, which has served the consumers' demand for reasonable prices.

The share of agriculture in the price paid by consumers is less than half, and the rest consists of the margins of processing and trade. Thus, processing industry and trade could just as well be blamed for the high food prices, but their possibilities to reduce the price of food are also limited.

At present the price level in Finland is lower than in many EU countries. Part of the relative decrease in the food prices can be explained through the devaluation of the Finnish markka, but real absolute decrease has also occurred.

More and more attention is paid to the quality of agricultural products. The residues are followed continuously. Agricultural production that uses chemical substances involves real or imaginary problems. Some consumers favor ecologically produced commodities, even if they are more expensive than those produced by using fertilizers and pesticides. However, Finnish agricultural policy has not clearly taken a stand on these questions, although ecological farming is supported. Environmental policy of agriculture is being formulated gradually. It is dealt with more in detail in Chapter 11.6.

11.3. Agricultural policy in practice

Agricultural policy is, in the first place, search for and application of various means in order to achieve the objectives. The measures are prepared by committees, commissions, teams and the authorities, as well as in the negotiations between the producers and the state. Ultimately, they are based on the law, acts, as well as official decisions of the government and other authorities.

The four most important acts on which the running of agricultural policy is based are the Farm Income Act, the Act on Directing and Balancing Agricultural Production, the Act on Directing Livestock Production (i.e. the regulation of the establishment of large production units) and the Act on Rural Industries. These are complemented by the dual price systems for milk and egg production.

The Farm Income Act is a means of running

the income policy. According to this act, the producers negotiate twice a year with the state about the prices (see Chapter 8). So far producers have got a full compensation for the rise of costs due to the rise in the prices of production inputs, and, in addition, the raise of farm income has been agreed on separately.

At the beginning of 1994 the Farm Income Act was replaced by a marketing system for agricultural products. Producer prices are still decided on in the negotiations between the state and agricultural producers, but the setting is more open than earlier. In particular, the negotiations are not based on any binding calculation on the increase in the production costs. Another notable change is the fact that the production and export ceilings have been abolished from the act. The new price system resembles the system of the EU with the target price, minimum price and threshold price.

The quite complex support policy, which aims at equalizing income disparities between different parts of the country and between farms of different sizes, forms an essential part of income policy. Additional prices and income support are graded regionally in order to maintain agricultural production in the northernmost parts of the country, too (see Chapter 13.2).

The earlier Farm Income Act determined the general objectives for production policy. Now these are agreed on separately in the negotiations. The Act on Directing and Balancing Agricultural Production and the regulation of the establishment of production units provide the means for controlling production, which is central in Finnish agricultural policy. Mainly, regulating means restricting production, but production is also supported to some extent (see Chapter 12).

The structure of agriculture is developed by means of the Act on Rural Industries. It determines the general framework for granting loans and subsidies to agriculture, and, consequently, makes it possible to influence the structural development. The objective is to grant loans, apart from farms, to other enterprises, too (see Chapter 14). The dual price systems of milk and egg production as well as the regulation of the

establishment of production units (see Chapter 12.8) also regulate the structure of agriculture a great deal.

11.4. The new Farm Income Act

The Farm Income Act has formed the most central part of Finnish agricultural policy. It has been a means of regulating the formation of producer prices, and it has determined the production targets of agriculture indirectly. The first Farm Income Act was passed in 1956, and since then it has been applied, in revised and reformed forms, up to the present. The former Farm Income Act was passed in 1989. It was intended to remain in force for five years. A new Act on the Marketing System for Agriculture was passed at the end of 1993, and it will come into effect at the beginning of March, 1994. The new act differs a great deal from the earlier ones.

The regulation of producer prices occurred in the negotiations between the state and farmers. There were two stages in the negotiations: first, the increase in the prices of production inputs was compensated in full to farmers, and after that the raise of farm income was negotiated (see Chapter 8).

Another central point in the Farm Income Acts were the production and export ceilings, which determined the share of the state of the costs resulting from the support on agricultural exports.

The new act is also based on negotiations. Its objective is "to guarantee a just income level to farmers, secure the marketing of agricultural products and develop their quality, improve the productivity of agriculture and lower the cost level, as well as to secure the food supply and reach a reasonable consumer price level".

The target prices and minimum prices, price and income support, as well as the measures needed to secure marketing are decided on in the negotiations. The target price is the price that the agricultural producers should get during the pricing year. The target price is set for wheat, rye, barley, oats, milk, beef, pork, mutton and eggs.

The minimum price corresponds to the intervention price of the EU. It forms the basis for calculating the export support or when agricultural products are purchased for storage.

The new act does not include any reference to the compensation of costs. Naturally it is still possible for the negotiating parties to ask for the same kinds of calculations as those used according to the earlier act, but they are no longer binding.

The production and export ceilings as well as detailed instructions on the responsibility of the state and agricultural producers for the costs of exporting overproduction have been left out of the new act. These are decided on indirectly in connection with the state budget by determining the amount of export support. The original intention was to establish a marketing fund, which would have been responsible for exports by means of the money available as import levies and budget transfers.

The marketing fund was passed in the Parliament, but the bill was left in abeyance till after the election. The financing of exports will still have to be managed through the budget, which means that the Government has the highest authority in matters concerning exports.

Import protection is realized by means of the Act on Import Levies, which was passed in the Parliament at the end of 1993. It determines the import levies for different product as well as the procedure to be followed in order to alter the import levies as the domestic and world market prices fluctuate. Thus the price system does not include any definite threshold prices, but in principle the system is similar to the threshold price system followed in the EU. Import prices are raised to the same level with the domestic prices by means of import levies. However, the act includes the possibility to lower the import levies in order to lower the prices in the domestic market, and the producers criticized this point very strongly.

11.5. The GATT settlement

The GATT settlement reached in December 1993 is very significant for agriculture. The ag-

reement will come into effect at the beginning of 1995, and the decisions must be fulfilled in six years. The main points of the agreement are:

- lowering internal support by 20 %
- lowering import protection by the average of 36 % and at least 15 % per each product
- reducing export support by 36 % and the amount of supported exports by 21 % from the level of the years 1986-1990
- allowing imports of at least 3 % at the beginning of the basic period and 5 % at the end of the basic period

Support and import protection must be lowered by degrees by the year 2000. The starting point may be either the years 1986-90 or 1991-92. Finland will probably choose the latter option, because in this case the cuts would not be as great during the first year as if the years 1986-90 were used as the starting point. The support has increased to some extent from these years.

The GATT settlement means that the producer price level can no longer be raised, but the income losses can be compensated for by means of direct support, which the agreement allows. Reducing exports was an objective of Finnish agricultural policy even without the GATT settlement, so that for this part the agreement is acceptable. At the same time the internal support is going to decrease, because it is calculated as a whole (AMS-support) and not separately for different products. In any case, the total support has decreased considerably as a result of the devaluation of the Finnish markka. On the other hand, the GATT settlement makes it necessary for Finland to follow the policy it has chosen.

Membership in the EU will require a great deal more adaptation of agriculture than the realization of the GATT agreement. However, the GATT settlement does not cause any major changes in the earlier calculations made for estimating the need for adaptation resulting from joining the EU. The CAP reform will for the most part realize the GATT settlement for the part of the EU.

11.6. Environmental concerns of agriculture

The environmental problems caused by agriculture are receiving an increasing amount of attention. It has been noted that the increase in phosphoric load and eutrophication of lakes and rivers are serious problems, and, in addition to industry and settlement, agriculture is considered a major emission source. Nitrogenous fertilizers also have an effect on eutrophication. Nutrients from intensive fertilization have in some places led to oxygen shortages in bays.

The increase in the load of agriculture on waterways has probably been influenced by specialization and continuous cultivation of grain, which has in places led to harmful condensation of the soil and deterioration of its structure. This has resulted in an increase in leakage.

In Finland, too, contamination of groundwater has become a problem in some places, especially in the case of private wells in the countryside. The silage effluent and the microbes in manure (e.g. salmonella) may also contaminate waterways or wells.

A considerable amount of ammonia is evaporated from livestock buildings and manure pits, as well as in connection with manure spreading. Ammonia gas returns to the ground as acid rain and affects the soil. It has been noted that the ammonia gas from traffic increases the ozone content of the air, which, according to studies made in Sweden, causes a reduction in the yield of spring wheat. Research on this matter has been started in Finland, too.

An increasing amount of attention is directed to the rural landscape. In Finland agriculture has been considered an important factor in maintaining the cultural landscape, and this is why it has been regarded as necessary to support agriculture in all parts of Finland. On the other hand, the present farming technology causes ecological problems. The use of pesticides, subsurface drainage and the disappearance of meadows has led to the vanishing of many plants and a decrease in the populations of certain species of birds.

Environmental problems are centered in water and soil. Instead, food in Finland is clean, and heavy metals are not a serious threat, either. As a result of the good quality of the raw material, there is relatively little cadmium in fertilizers. Other sources of cadmium are the fallout from the atmosphere and sludge from the sewage treatment plants, the use of which is not approved of by agriculture. The residues of pesticides in foodstuffs are very small. Besides, like in other parts in Europe, some decrease has occurred in the total amounts of chemicals used in plant protection.

Means

Attempts have been made to solve environmental problems through various means. A tax on fertilizers has been collected for many years to cover the share of agriculture in export costs, but, at the same time, the tax has been a means of environmental policy. A tax on phosphorus came into effect in 1990, and this is a purely environmental tax.

The taxes on fertilizers and phosphorus were combined at the beginning of 1992. The tax is determined on the basis of the nitrogen and phosphorus content of the fertilizers. In 1993 the amount was FIM 2.60/ kg of nitrogen and 1.70/kg of phosphorus.

The use of nitrogenous fertilizers is restricted indirectly, because a tax on fertilizers has been collected to finance the export of overproduction and fallowing. The main objective has been to restrict production, and the increase of the nitrogen content of the groundwater has not as yet led to any special measures.

Phosphatic fertilization has been reduced in an efficient way by lowering the phosphorus content in fertilizers. The recommendations have been changed for the part of phosphorus, because the amounts accumulated in the soil are adequate.

An attempt is also made to prevent the leakage of phosphorus into the waterways through buffer strips and grass fallowing, for which a special compensation is paid.

Ecological farming and sustainable agriculture are often presented as the solution to achieving the balance between agriculture and the ecosystems surrounding it. At the same time, this may reduce overproduction.

Agricultural producers themselves have also taken the initiative in taking environmental considerations into account. The Central Organization of Agricultural Producers has passed a program for environmental policy, which gives general directions on farming and other production techniques through which the problems caused by, for example, fertilizers, manure, pesticides and other factors that may be hazardous to the environment can be reduced. The agricultural extension organizations have also enforced their activity concerning environmental considerations.

12. Production policy

Production policy consists of production objectives and the means to achieve them. Production objectives are derived from the security of the supply, i.e. Finland should be self-sufficient in all conditions. However, self-sufficiency has been exceeded, and overproduction has become the most serious problem in production policy. In practice, production policy has mainly meant restricting production.

12.1. Production objectives

The task of production policy is to determine the production objectives and to direct production so that the objectives will be achieved. Since the 1950s production objectives were determined on the basis of the production and export ceilings (see Table 17).

The new Farm Income Act (the Act on the Marketing System for Agricultural Products) does not include any fixed production ceilings, but these are determined indirectly on the basis of the appropriation available for exports.

No new long-term production objectives have been determined after those presented by the

"Agriculture 2000" commission. The commission recommended that, in the long run, production should correspond to consumption, although some overproduction would be allowed due to seasonal variation. This 100% self-sufficiency can still be regarded as the production objective of the government. If Finland joins the EU, there is no longer any actual national objective, but production will be determined according to the competitiveness of Finnish agriculture. The quotas for milk production and the MacSharry reform restrict the production possibilities to some extent.

The production ceilings system was still applied in 1993. The so-called production and export ceilings are presented in Table 17. The responsibility of the state for the export costs of overproduction decreased by degrees. For example, in 1992 the state accounted for 80% of beef exports up to 2 mill. kg and for 50% of the export costs up to 5 mill. kg.

Similar procedures were applied to milk, pork, eggs and grain. Non-food grain used in industry, which is supplied for the world market price, was included in exports. The amount of the import levies on dairy products, meat and grain were deducted from the responsibility of agriculture for the export costs.

The state no longer carried the full responsibility for the export costs of any products. However, for the part of milk the 100% production ceiling still existed, but agriculture had to pay for the export of 3 mill. kg butter in any case. In the case of meat and eggs the share of the state in the export costs was quite small. The highest costs were caused by the overproduction of grain and milk.

According to the act, export cost charges could amount to the maximum of 13% of the agricultural income of each year, and the state was responsible for the rest. However, the act was changed so that no maximum was set for 1991, and in 1992 and 1993 the limit was 20%.

The production ceilings were exceeded especially in the case of milk and grain. Table 17 presents the amounts that exceeded the full export responsibility of agriculture in 1990-1992.

The 100% production ceiling of dairy milk

Table 17. Quantities of milk production (mill.liters) and exports of meat, eggs and grain (mill. kg) up to which the state accounts for 100%, 90%, 80% or 50 % of export costs in 1990-1993.

	%	1990	1991	1992-93 ²⁾
Dairy milk ¹⁾	100	2300	2280	2150
	90	2400	2375	
	50	2550	2525	2300
Beef	90	5	4	
	80			2
	50	8	7	5
Pork	90	7	6	
	80			4
	50	12	11	6
Eggs	90	8	7	
	80			2
	50	12	11	4
Grain	90	515	490	
	80			350
	50	715	690	550

¹⁾ In any case, agricultural producers are responsible for the export costs of 3 mill. kg butter (in 1991 7 million kg and in 1992 10 million kg.

²⁾ New production and export ceilings concerning the years 1992 and 1993.

was 2,300 mill. liters in 1993. Production was below that ceiling. The export costs of milk amounted to altogether FIM 855 mill., and the share of agriculture was FIM 229 mill. The export costs for meat were FIM 454 mill., and the share of agriculture was 317 mill. The export costs of grain were the highest, FIM 1,394 mill. Agriculture had to pay FIM 856 mill.

The share of the state of all export costs (FIM 2,896 mill.) was FIM 1,320 mill. and the share of agriculture FIM 1,576 mill. Consequently, agriculture has to pay an increasing share of export costs.

Table 18. Excesses and shortfalls of production and export ceilings and the share of agriculture of the export costs in 1990-93.

	1990	1991	1992 ¹⁾	1993
Dairy milk, mill.l	48.0	-70	25	0
Pork, mill.kg	13.8	5	6	8
Beef, "	1.1	12	5	9
Eggs, "	9.4	2	4	12
Bread grain, "		-		
Feed grain, "		- 697	550	488
Export costs, FIM mill.	791	704	1467	1491

¹⁾ Estimate of the excess over the production and export ceilings (the full export responsibility of agriculture)

12.2. Measures to restrict production

Production can be directed through both price policy and direct restrictive measures. As the price settlements have in the first place served the development of the income level, it has not been possible to use them for reducing production. Thus production policy has concentrated on restricting the quantities produced. The measures have been either voluntary or mandatory. The mandatory measures include the dual price systems for milk and eggs, the regulation of the establishment of agricultural enterprises, restricting land clearing, and fallowing.

In 1983 an act was passed for the voluntary systems (the Act on Regulating and Balancing Agricultural Production), and it will remain in force in a revised form until the end of 1994. According to this act, the Government can annually decide on the various measures to restrict production.

In addition, various other measures also have an effect on production. The licenses required for the establishment of production units are

one of the most important means of regulating production. In addition to covering the marketing responsibility, the export cost and marketing charges collected for financing the export of surpluses, as well as the tax on fertilizers and feed have a restricting effect on production. The land clearing charge, which has stopped land clearing almost completely, also aims at restricting production.

Another means of restricting production are the measures concerning farmers' pensions: an attempt has been made to promote retirement through improving pensions, as well as by abolishing hectareage subsidies and additional price of milk from farmers who have reached the retirement age from the beginning of 1988, and the additional price of eggs from the beginning of July 1988. The connection between retirement and giving up production has been tightened. Earlier contracts to give up production were also made with pensioners.

Production is also supported to some extent, for example, the production of beef and mutton is supported through an additional price, and beef production through beef cow contracts. There are also other forms of production support (see Chapter 12.9.)

Consequently, there is a good number of regulatory measures, and they dominate the realization of agricultural policy. These measures, some of them made earlier and some concerning the year 1993, are dealt with briefly in the following.

12.3. Contracts to reduce agricultural production

In order to reduce agricultural production it has been possible to draw up contracts that are directed to the whole production of the farm, to livestock production, or to only one product, e.g. milk or eggs. However, no contracts were made in 1993 due to the shortage of state support.

Measures concerning the whole farm

It has been possible to make a contract on stopping production either for good or for a period of six years. The compensation has been based on the arable land area and the extent of livestock production. For the part of milk, eggs, pig production and beef the compensation has been graded according to the extent of production.

In this connection, the establishment of forestry farms has been supported and encouraged. For the first five years a farm that turns to forestry or rural industrial activity receives a compensation according to the income, and for the whole period a so-called basic compensation of FIM 12,500 a year. When the contract was made the timber output of the farm had to amount to the minimum of 100 solid cubic meters a year. On these farms the afforestation of arable land has been supported by doubling the afforestation compensation.

Measures concerning individual products

The most important contracts concerning individual products have been the measures directed to milk and egg production. It has also been possible to reduce grain production through contracts.

Contracts to give up milk production were made at the end of 1990 and at the beginning of 1991. There were two alternative ways of giving up production: farmers could stop producing either for five years or completely, i.e. give up their milk production quota.

Contracts to reduce egg production made from time to time since 1976 have been an efficient way of curbing production. The contract can either be made for a certain period of time or it can be permanent, in which case the state buys production quotas. Five-year contracts to reduce egg production were made at the end of 1990, and these came into effect during 1991.

In 1991 the so-called production intervals were introduced in egg production: the producer receives the additional price (see Chapter

12.7.) only if he has an interval of at least ten weeks between production periods. Hens that are under 20 weeks old can be raised during the interval.

An attempt has also been made to reduce egg production by restricting hatching. General instructions on the number of chickens to be hatched have been issued for this purpose. Expanding hatcheries and setting up new ones has been prohibited in the past few years. However, since 1992 hatching has not been restricted.

The grading of the marketing charges also reduces pork production (see Chapter 12.5.).

Other measures

Afforestation is a way of removing arable land from production permanently, and an attempt has been made to promote it. The compensation was FIM 1,650 - 2,970/ha a year for five years, depending on the region. No new contracts were made in 1993.

In practice, the clearing of new arable land has been made unprofitable through a land clearing charge of FIM 50,000/ha.

Already in August 1986 the authorities started to reform pension systems in order to cut overproduction. It has been possible for farmers to retire before the actual retirement age and receive compensation for this. Farmers committed themselves to leaving their land uncultivated for six years.

At the beginning of 1993 an act on the compensation to agricultural entrepreneurs for giving up production came into force, replacing the earlier pension system. Farmers can make the contract at the age of 55, and it stays in force until they are 65. The compensation consists of a basic amount and an additional compensation for giving up production. The basic amount is the same as the disability pension according to the act on farmers' pensions. The additional compensation is determined on the basis of the arable land area and the number of animals. Farmers must give up agricultural production for at least six years.

12.4. Fallowing

The overproduction of grain has become a serious problem. It results from the decrease in livestock production and the increase in the yield level. An attempt has been made to reduce overproduction by means of a tax on fertilizers and fallowing. The export cost charges of grain have also influenced the decisions on production.

In 1991 a mandatory fallowing system came into effect. This system was applied in 1993 as well. A farmer had to leave fallow 15% of the arable land area. If the farmer did not want to fallow he had to pay FIM 1,000/hectare as export cost charges for the whole area. Farms with less than 3 hectares and those on which grass accounted for at least 80% of the arable land area were exempt from fallowing. Fallowing was also a condition for the hectareage support. No compensation was paid for ordinary fallowing, but FIM 400/ha was paid for grass fallowing. The act remains in force until the end of 1994.

Through the mandatory 15% fallowing, about 300,000 hectares could be removed from production. However, the objective was to fallow 450,000 - 500,000 hectares in 1993. Consequently, a basic premium of FIM 600 - 1,000/hectare was paid for the area left fallow that exceeded the obligation, as well as an additional premium of FIM 1,200 - 1,900/hectare for the share that exceeded the obligation up to 30%. In 1992 the area left fallow was close to half a million hectares, and in 1993 the area was 450,000 ha. Thus the lower limit of the objective was reached, but obviously this was somewhat disappointing. Grain production increased and the exports are growing.

In addition to fallowing, the farmer may participate in other systems to reduce production.

12.5. Export cost charges

In order to cover the share of agriculture in the export costs, in 1993 export cost charges were collected as follows:

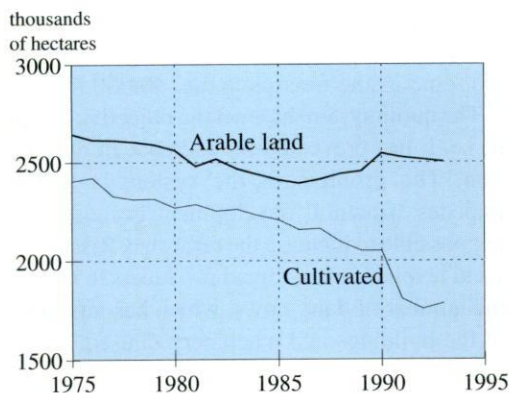


Figure 10. Arable land area and area under cultivation in 1975-93.

- Tax on fertilizers was FIM 1.70/kg of phosphorus and 2.60/kg of nitrogen.

- The export cost charge for all grains was FIM 0.10/kg from the beginning of the year and 0.20/kg from July 1st.

- Export cost charge for pork was FIM 0.30/kg for carcasses under 76 kg, 1.00/kg for those between 76 and 80 kg, and 1.50 for those over 100 kg.

- Tax on protein feed was FIM 1.90/kg on fat and raw protein, excluding the protein in grain. The tax on each feed mix is determined on the basis of its fat and protein content.

- In order to cover the export costs of the overproduction of milk, a "fat charge" has been collected. In 1993 this was 0.4 pennies for one tenth of fat for the part that exceeded the fat content of 3.7% in milk.

- Large-scale poultry farms and pig producers have to pay a marketing charge if the income that the charge is based on exceeds FIM 1.5 mill. in pig production and 0.65 mill. in poultry production (since 1989). If the producer has income from both pig and chicken production and the income from the production line that provides smaller income is at least 50,000, the marketing charge is determined on the basis of the total income from both production lines. The size of the enterprise that exceeds the income limits is about 570 pig places and 3,800 hens or chickens.

As Table 19 shows, the total export cost charges deviate from the final share of agriculture. The balance sheet cannot be calculated until at the end of the year. However, the excesses and shortfalls are taken into account in the calculation in the following year. Consequently, the final calculation indicated that in 1992 FIM 219 mill. too little had been collected from agriculture.

It is estimated that in 1993 about FIM 1,247 mill. were collected from agriculture for covering the export costs as well as for measures to balance production. The share of the export cost charges proper has been estimated at FIM 1,491 mill. The deficit from 1992 was FIM 219 mill.

Table 19. Export cost charges in 1992-93, FIM mill.

	1992	1993 ^e
Milk	108	54
Quota charge	5	130
Pork	81	70
Tax on fertilizers	492	476
Tax on feed fat	100	45
Tax on feed protein	175	185
Additional marketing charges	10	5
Grain	491	283
Total	1463	1247
Transfer from the previous year	-238	-219
Share of agriculture	1467	1491
Other	..	150
Covered by agricultural support		-620
Transfer to the next year	-219	7

Source: Ministry of Agriculture and Forestry.

The deficit in 1993 will be covered by subtracting the support paid to agriculture by FIM 620 mill., after which the account is in balance.

12.6. Dual price system for milk

The dual price system for milk came into effect at the beginning of 1985. A quota was set for each farm on the basis of the amount of dairy milk production in either 1981/82 or 1982/83, whichever was higher. However, all farms that produced milk at the beginning of 1985 could produce freely up to 30,000 liters. The free quota was raised to 40,000 liters at the beginning of 1990. Earlier it was not possible to buy or sell quotas, but this was made possible at the beginning of 1994.

If the amount of milk delivered to dairies exceeds the quota, a quota charge (FIM 2.05/liter in 1992) is collected for the excess. In 1994 the quota charge is FIM 1.65/liter. The principal is that producers get only the world market price for the amount that exceeds their quota. The excesses have been rather small.

At the beginning of 1988 a quota system for dairies came into force. Dairies have to pay a quota charge of FIM 0.50/l for the amount of milk that exceeds the amounts of 1989. The purpose of this is to prevent the dairies from taking advantage of the free quotas and, in general, from increasing milk production for business reasons.

The quota system is continued until the end of August, 1994. The system used to be based on the calendar year, but now it is calculated from the beginning of September until the end of August. The first period, however, was Jan. 1st, 1992 - Aug. 31st, 1993.

In order to improve the production structure, the system was changed so that 75% of a discontinued quota is returned immediately, based on a decision of the agricultural district, unless the reduction results from a contract to reduce or give up production. In Northern Finland the additional quota is 100%.

Farmers who made a contract on ecological

production could apply for a license to start producing milk. The maximum quantity was the same as the free quota, i.e. 40,000 liters.

The quota system has met the objective set for it, i.e. it has prevented the increase in production. The problem of the system is that it impedes structural development because it is not possible to increase the farm size. Rise in the yield level has even forced producers to reduce the number of dairy cows, which has left some of the buildings and machinery unused.

Milk production is completely regulated by the state. It is supervised through a threefold quota system: the highest is the ceiling concerning the whole production, dairies have their own quotas, and the most effective restrictive means are the quotas for individual farms.

12.7. Dual price system for eggs

At the beginning of 1986 a quota system for egg production came into effect. A production quota was determined for each egg producer, based on the largest quantity sold in a year in 1982, 1983 or 1984. For special reasons the quota could be altered.

In this system the regulation of production is based on an additional price, which in 1993 was FIM 3.89/kg in the provinces of Oulu and Lapland and 3.49 in other parts of the country when the production was the maximum of 10,000 kg and FIM 3.04 in the whole country for the maximum of 80,000 kg (see footnote in Appendix 7).

Producers get the target price plus the additional price for the quota. The additional price is paid for the maximum of 80% of the production quota, and for the part exceeding 50,000 kg for only 70% of the quota. It is paid only up to 80,000 kg.

As a result of the grading of the price production has decreased continuously, but this has been partly caused by the contracts to decrease production as well. As a result, the exports have dropped to quite a tolerable level.

12.8. Regulation of the establishment of production units

Originally, the regulation of the establishment of production units was based on the objective to prevent agriculture from becoming too industrialized. An attempt has been made to keep production in the hands of farmers. For this purpose the Act on Directing Livestock Production was passed in 1986. A condition for the establishment of an agricultural enterprise is that the farmer lives on the farm, and the farm size does not exceed certain limits.

The licenses have gradually become an effective means of preventing the increase of production. New livestock production units cannot be established or old ones extended without a license from the authorities.

A license from the agricultural districts is required for the establishment of production units with over 30 beef animals, 25 pigs, 100 hens for egg production, or 1,000 chickens (or other poultry) for poultry meat production.

Licenses are not granted to enterprises with over 120 beef animals, 400 pigs, 4,000 chickens, or 30,000 broilers. The license is granted for only one form of livestock enterprise.

These restrictions do not apply to milk production because it is regulated separately through the act concerning the milk quota system. Beef production that is based on suckler cows is not regulated, either, but, on the contrary, it is supported through a special suckler cow premium.

In addition, getting the license is subject to the condition that the farm should be able to supply 2/3 of the feed needed in the production. If the size of the enterprise is over 60 beef animals, 200 pigs or 1,000 hens, a 3/4 self-sufficiency in feed is required. In the case of chicken production, the required self-sufficiency is 1/5. In the past couple of years, suckler cows have not been taken into account in calculating the self-sufficiency in feed.

In general, granting the license has been restricted only to transfers of farms to descendants and, for special reasons, to some other cases in which the owner of the enterprise

changes. In most cases production can only be continued in the same extent as earlier.

The Act on Directing Livestock Production was revised in 1993 and it became effective at the beginning of 1994. The system was made a little more flexible.

12.9. Production support

Finnish production policy is mainly characterized by measures to restrict supply. There are, however, some measures that aim at increasing production, too. The most important one is the beef production support, which aims at raising slaughter weights. This was regarded as necessary in the mid 1970s to secure the domestic beef supply.

Production support is realized through an additional price, which is paid if the slaughter weight exceeds certain limits (Appendix 9). Beef production proper is supported through the so-called suckler cow premiums. In 1993 the amount of this was FIM 1,700/cow for the maximum of 30 cows.

Additional production premium of FIM 9.50-21.40/kg is also paid for mutton. There is no actual production support for grain, but the production of rye and feed grain is supported by regional subsidies in some parts of Finland. The production premium for rye was FIM 0.30/kg and that of feed grain FIM 220/ha.

Ecological cultivation has been supported since 1990. Farmers can shift to ecological cultivation during a three-year period, during which they are entitled to support. Farmers engaged in ecological farming prior to 1990 are also entitled to this support. Farmers commit themselves to practicing ecological cultivation to the end of the contract period. In 1993 this support was FIM 1,800 - 2,200/hectare. The contracts can be made for 6, 7 or 8 years.

PSE support

Agricultural support can also be defined more broadly as the difference between the producer

price and world market price. This definition has been applied, for example, by the OECD in its study of agricultural support in different countries.

In the OECD study the support is measured by a PSE (producer subsidy equivalent) indicator, which is calculated, roughly, as the difference between the producer price and world market price.

In principal, all agricultural support (price support, export support, production subsidies, investment support, research and advising costs, etc.) are included in the producer price. This procedure has been regarded as necessary to be able to include all forms of support in the calculation.

As calculated by the OECD, the support becomes very high because it is based on the world market prices, which are quite low. The support is very much susceptible to disturbances in the market, especially oversupply. Some of the world market prices determined through this procedure (e.g. the price of milk) have obviously been far too low. The devaluation of the Finnish markka has changed the price relations with the other countries considerably. As a result, the PSE support in Finland has decreased a lot during the past couple of years.

13. Agricultural support

13.1. Support in general

There are many ways of understanding and defining agricultural support. As a rule, it refers to the support that is paid through the state budget, e.g. price support, export support and production subsidies. Support can also be defined as the difference between the producer price and the world market price, like in the case of the PSE support calculated by the OECD. This is based on the idea that without the state support the producer price would be same as the world market price.

The most important task of Finnish support policy is to keep the producer prices at the level

Table 20. Agricultural support, FIM mill.

	1990	1991	1992
Agricultural production	5 253	6 047	6 247
- price policy support	3 375	3 570	3 782
- structural support	1 130	1 104	1 180
- other	749	1 374	1 285
Marketing	4 720	5 079	4 261
- export support	3 481	3 838	3 134
- sales tax	753	885	748
- export of processed food stuffs	486	355	379
- price support	738	911	734
- other	680	874	690
- other	58	37	44
Other		0	0
Total, gross	10 711	12 037	11 243
Total, net ¹⁾	8 997	9 896	8 700

¹⁾ Net expenditure has been calculated by deducting the state's tax and charge incomes from the gross expenditure (e.g. the share of agriculture in export costs).

Source: Economic Survey 1993

agreed on in the farm income negotiations. Most of the support is an integral part of the price system and its realization. Part of the support is not included in the price system, for example, investment support and support for the financing of structural development are granted through the Development Fund (see Chapter 14). Agricultural extension and breeding are also supported through budget funds.

The support is used for subsidizing exports, reducing income disparities, supporting production, and realizing the price level of special crops, like sugar beets and oil plants. Part of the support is so-called direct support, which is recommended by the international organizations, instead of price support.

The distribution of the support for different purposes is presented in Table 20. The support has been divided into three parts: support of agricultural production, marketing support and support of food stuffs. Production is supported by means of the so-called price policy support,

structural support, and various other forms of support. Price policy support is dealt with in detail in Chapter 13.2 and structural support in Chapter 14.

Marketing support includes the export support of raw materials and processed goods. The state has to pay export subsidies and compensations for the differences in prices in order to prevent the export of surpluses from lowering the producer prices farmers get. For computational reasons, the refund of the sales tax for the part of export products is also regarded as export support.

The third form of support presented in Table 20 concerns food industry. In the case of sugar and oil plants, the difference between the domestic and foreign price level is equalized through special import levies and excise taxes. As a result, the budget also includes support on food stuffs. Most of this is returned to the state as import levies and excise taxes paid by the consumers.

13.2. Price policy support

Price policy support is a central form of support related to our price system. The amount is decided in the farm income negotiations, since part of the need for raises is transferred to price policy support. Income disparities within agriculture are equalized through this support, but it also used to function as a means of slowing down inflation in the mid 1970s, when part of

the raise in the price of milk was transferred to be paid as a so-called additional price through the budget.

The most important forms of price policy support are:

- 1) regional support and support paid according to the farm size
- 2) additional price of milk, meat and eggs
- 3) hectareage support

In 1993 altogether FIM 4,245 mill. was reserved for price policy support.

Support according to the area and size of the farm

The support that based on the farm size (the so-called hectareage subsidy) is tied to the area of the farm and to the number of livestock, i.e. to so-called production units (one hectare and one dairy cow equal one production unit, one pig equals 0.2 production units, etc.). Subsidies are highest on farms with 7-8 hectares. No production units are formed of arable land area of over 50 hectares. The payment per production unit is confirmed annually, and it is graded according to the joint income of the farmer and spouse and according to the region. In 1993 FIM 710 mill. was available for this support.

In order to determine the hectareage subsidies the country has been divided into five areas, two in Southern Finland and three in Northern Finland, and, in addition, the subsidies are graded according to incomes. The basic price per pro-

Table 21. Hectareage subsidies per production unit in 1993.

Income class	Northern Finland				
	Southern Finland	Central Finland	southern zone	central zone	northern zone
under 90 000	500	550	600	650	750
90 001 -110 000	375	413	450	488	563
110 001 -130 000	250	275	300	325	375
130 001 -150 000	125	138	150	163	188
below 39 years of age	700	770	840	910	1050

duction unit was FIM 500-750 in 1993. Producers that are under 39 years of age receive a 40% higher subsidy if their income is below FIM 90,000 (Table 21). In addition, the farm must have been acquired after 1983.

Hectarage subsidies are applied for from the local agricultural boards, and the majority of farms are entitled to this support.

Hectarage support

A support system based on the area was introduced in 1990, when part of the raises in prices was paid as direct support on the basis of the area. This became necessary as the GATT agreement made it impossible to raise agricultural support, which would have resulted from the increase in market prices. Hectarage support was FIM 450/hectare in 1993. For farmers under 39 years who have acquired their farm after 1983 the support was FIM 750. Farms with less than 3 hectares do not receive any hectarage support.

Regional support

In order to balance regional income disparities, milk and meat producers are entitled to production support. For this purpose the country has been divided into 10 regions (for the part of meat into 9), and the production subsidy for milk and meat has been determined for each of them separately. Regional subsidy is very important to farmers in Northern Finland because, for example, the regional subsidy for milk is FIM 0.13 - 0.55/l, that of pork FIM 0.40 - 0.55/kg, and of beef the maximum of FIM 12.80/kg in the province of Oulu. This subsidy has proved very effective as a means of equalizing income disparities within agriculture.

BA subsidy based on the number of animals, is paid in Northern Finland and in the archipelago. The subsidy is graded regionally, and it varies between FIM 140 and 1,725 per animal unit. In the southernmost parts of the support area the subsidy is doubled for the first seven dairy cows, and in the north it is tripled.

Additional price for milk

The additional price of milk was introduced in 1974 to slow down inflation. At first it was the same for all farmers, but later it has been graded according to the quantities of milk (see Appendix 7), and, consequently, it has become a means of dividing incomes within agriculture.

Farmers over 65 years of age do not get the additional price. It is generally regarded as desirable that pensioners would give up agriculture. Thus part of the arable land might remain out of production, which reduces overproduction. Farmers over 65 years of age do not get hectarage subsidies, either. These two points have increased the willingness to retire, which is also supported by the improvements in the pension systems.

14. Structural support

Small farm size, which leads to unnecessarily high production costs, is considered one of the major problems in Finnish agriculture. The task of structural policy is to increase the farm size and, in general, to rationalize production in order to reduce production costs.

The state supports the rationalization of agriculture. This activity is based on the Act on Rural Industries, which came into effect in 1991, and which provides the general framework for the development of farms that is supported by the state. On the basis of this act, farms are granted investment and financing support as well as direct subsidies. The purpose of the act is to create uniform legislation to promote agriculture and rural industries. It includes the earlier Farm Act and certain other acts.

A central means of the Act on Rural Industries is the Development Fund of Agriculture and Forestry, through which the state supports investments in agriculture by granting low-interest loans and direct subsidies. The support is subject to the condition that the farm must be profitable, and the objective is to improve the farm structure and to increase the average farm size.

The capital of the Development Fund consists of annual transfers from the state as well as the interests and repayments of loans and trade price payments resulting from the land use activity. However, now the transfers to the Fund have been stopped. The capital stock of the Fund is about FIM 8 bill. The interest varies between 4 and 7%, depending on the region. The Development Fund has granted loans, in particular, for transfers of farms to descendants.

By means of state funds it is also possible to lower the interests on loans granted by private financial institutions, if the loans meet the preconditions of the act. The interest support is half of the interest of the credit institution. Interest support loans are as significant as the actual loans granted by the state. Almost all loans except for those granted in connection with transfers of farms to descendants are granted as interest support loans.

Support of rural industries

The rationalization and decrease of agricultural production cause a decrease in rural population and threaten to leave the countryside uninhabited. Consequently, an attempt has been made to develop rural industries in general. However, only basic production and entrepreneurial activity closely connected with it are subsidized on the basis of the Act on Rural Industries, and other small-scale entrepreneurial activity in the countryside is still excluded.

Subsidies and loans may also be granted to support so-called rural industries that are outside agriculture proper. The support has been granted for entrepreneurial activity practiced by farmers in connection with agriculture. Enterprises that are run by the farm family or that employ outside labor corresponding to the maximum of 2-3 annual jobs are entitled to the financing. The most important fields that have received the support are small-scale labor intensive manufacturing and service enterprises (about a third), garden, greenhouse and other special crop production (about 20%), farm holidays, horse husbandry and other enterprises related to free-time activities (about 20%), as

well as fur farming, aquaculture and beekeeping.

The so-called start money system is also part of the investment support. Young farmers under 35 years of age are entitled to state support when they start practicing agriculture on a farm they have acquired. In 1993 the maximum subsidy was FIM 62,500 to be spent on, for example, purchasing machinery, implements or fertilizers. Altogether FIM 65 mill. of start money was available last year.

15. Social policy

A farmer is at the same time an entrepreneur and an employee. The general legislation on the social security of employees does not concern farmers, but a separate legislation has been developed for them. Usually this has been decided on in the farm income negotiations. The responsibility for the costs of the social security is divided between farmers and the state. The most important acts concern the pensions, compensations in case of sickness or accidents, annual vacation, and substitute help.

Farmers' pensions are prescribed by law, and they are comparable with employee pensions in other sectors. Farmers pay insurance payments according to their labor income, which is mainly determined by the area of the farms. They are entitled to, for example, old-age pensions, part-time pensions, disability pensions, unemployment pensions, as well as a pension in case of early retirement. The amount is determined by the insurance payments, but the state also contributes to financing the pension costs. Because the number of the insured has decreased and the number of pensioners has increased, the state accounts for about 80% of the pension costs.

The Acts on Farmers' Pensions is supplemented by the pension in the case of a transfer of the farm to a descendant, which mainly aims at lowering the average age of farmers and to get skilled farmers to the field.

Pension in the case of a transfer of the farm to a descendant can be granted to farmers over 55 of age. The contract can be made when the

farmer is 50 years old, but the payments start when he is 55. The pension is subject to the further condition that the production on the farm is considered profitable. In practice, the amount is determined in the same way as in the case of disability pensions, and the same stipulations are applied as for the other pensions in the case of early retirement. The sale price of the farm also affects the pension. This aims at preventing the rise in sale prices and making them correspond to the return value of the farm.

The system in case of giving up production that came into effect at the beginning of 1993 can also be included in the pension systems, replacing the earlier act on pensions in the case of giving up production. The system aims at improving the structure of agriculture and reducing agricultural production, because the pension is subject to the condition that the production is discontinued (see Chapter 12.3.).

In the case of *disability* resulting from illness farmers are entitled to compensation on the basis of the general sickness insurance act.

In 1982 farmers' *accident insurance* act came into effect. The accident insurance is automatically incorporated in the pension insurance. The insured are entitled to compensation for costs, daily allowance and pension in case of accidents or occupational diseases. Insurance payments are collected from those who, according to the act, have to take the insurance. Farmers account for half of the costs of the additional insurance, and this is taken into account in the farm income calculation as agricultural cost (FIM 39.5 mill. in spring 1993). The state finances the other half of the additional insurance, and the basic insurance is mainly financed by the National Pensions Office.

In 1988, a group *life insurance* for farmers was introduced, the aim being to secure the subsistence of the family of the deceased.

Farmers engaged in livestock production are entitled to an *annual leave* of 22 days. The municipalities have to arrange substitute workers for the duration of farmers' vacations. This system is mainly financed by the state, but agriculture also contributes to the costs, because part of them is taken account as farm

income in the farm income negotiations.

Farmers can get *substitute help* in the case of sickness, accidents, rehabilitation, military service or childbirth. The substitute help for the duration of maternity leaves was extended to 320 days from the beginning of 1991. Farmers pay for the substitute help, and the amounts are determined according to their income and the size of the family. The payments are taken into account in the farm income calculation as agricultural cost (FIM 25.0 mill. in spring 1993). The costs of the substitute help system are mainly paid by the state, but agriculture pays part of them in the farm income settlement.

Animal husbandry does not allow week-ends off as most other jobs do, which means that these farmers have a seven-day working week. A *days-off scheme* has been developed to relieve farmers engaged in animal husbandry from being continuously tied to their work. A farmer is entitled to the maximum of 12 days off a year, either one day at a time or several consecutive days, the maximum being five days a month. Farmers contribute to the costs of the scheme, and the amounts are determined according to the number of animals. The payments are taken into account in the farm income calculation as agricultural cost (FIM 17.0 mill. in spring 1993). Part of the money from the state is regarded as farm income. Only about 20% of farmers entitled to the days-off have taken advantage of this scheme.

An experiment of farmers' *occupational health care* was started in 1980. Occupational health care is preventive health care, including accounts of working conditions and health inspections. Farmers pay 50% of the costs of health inspections, and the National Pensions Office and the state account for the rest.

The social security payment are paid in full through the state budget. The share of agriculture in the costs of the system is realized by lowering the producer price level in the farm income settlement by an amount that corresponds to the share in costs. In the settlement of spring 1993 the share of agriculture was estimated at FIM 14.5 mill.

IV SUMMARY

The crop was very good in 1993. The hectareage yields were exceptionally high, in some cases higher than ever before, and the quality was also good. The weather conditions were obviously favorable for the growth of grains. The drought in the spring did not affect the crops, and the cool temperatures in June were good for the sprouting. The average hectareage yield was 3,316 f.u./ha, and the total yield was 5,403 mill. f.u. without straw. The hectareage yields of oats and barley, in particular, were high, but those of oil plants were also good.

The cultivated area increased by about 30,000 hectares from the previous year, because the area under premium fallow, which was about 450,000, remained about 50,000 ha smaller than in 1992. Farmers had to leave fallow 15 % of their arable land area in order to receive the hectareage compensation for the whole area. A special compensation was paid if the area left fallow exceeded the minimum.

Fallowing is an efficient means to restrict production. However, the total yield of grains was 3,300 mill. kg, which exceeds the domestic need by about 800 mill. kg. Overproduction is still high, even if part of the overproduction last year can be explained through the exceptionally high yield level.

A slight decrease occurred in livestock production. The amount of milk delivered to dairies dropped about 10 mill. kg. In the early part of the year the production was at the same level as in 1992, but remained 3-4 % below it in the latter part of the year. No new measures to restrict production were applied, which probably explains the slow decrease in the production compared with the previous years. The self-sufficiency is still clearly over 100 % with respect to both liquid milk and, in particular, fat.

Meat production fell altogether by about 5 %. The most dramatic drop occurred in beef production, which fell by 9 %. The number of cows has dropped, which has resulted in a decrease in the number of slaughter animals. The number of dairy cows removed from production was also smaller than in the earlier years, which also caused meat production to fall.

Pork production decreased by about 5 %. No measures to restrict production were applied, but the slaughter weights were restricted through a marketing charge, which was FIM 0.30/kg for carcasses under 76 kg, 1.00/kg for carcasses over 76 kg, and 1.50 for carcasses over 80 kg. This has dropped the average slaughter weights. The system is continued in 1994.

Egg production increased by 4 %. The increase resulted from the fact that no active measures were applied to restrict production.

The farm income settlement was made according to the Farm Income Act. The calculation of the compensation for costs indicated that the need for raise was FIM 423.6 mill. As the wages were not raised in the general labor market, no increase was realized in the farm income, either. The farm income settlement includes a number of compensations related to e.g. the social policy, and as a result of these and certain other corrections the final price settlement amounted to FIM 310 mill.

The price settlement was realized by increasing the state support by the FIM 310 mill. The settlement also included a decision to use FIM 320 mill. of the state funds to cover the share of agriculture in the export costs. In addition, the target prices of all grains were lowered by FIM 0.05/kg.

Farm income decreased by about 25 % in 1993. The marketing charges cut the farmers' incomes by a considerable amount. Producer

prices decreased slightly, but support rose correspondingly. The prices of production inputs did not increase much.

The farm income system was revised at the end of 1993. The new marketing system resembles the price system of the EU. A target price and minimum price are set for the most important products, and the latter forms the basis for decisions on export support. Imports are protected by means of the Act on Import Levies. It prescribes the import levies for different products and the principles for changing them if necessary.

The decisions on prices are still made in the negotiations between the state and the producer organizations. The rise in production costs resulting from the increase in the prices of production inputs is no longer compensated for automatically as earlier, but the negotiating parties can decide on this matter freely.

A settlement was reached in the GATT nego-

tiations, and this comes into effect at the beginning of 1995. It is not considered very problematic for Finland, because reducing production is an objective in any case, and this helps to cut the total support and to reduce export support, which are the most important obligations imposed by the agreement. Import protection must be lowered, and this means that the domestic price level must be dropped. However, it is possible to compensate the income losses to farmers by means of direct support.

The adaptation to the price system of the EU, if Finland becomes a member, would be a much more demanding task than the GATT settlement. The response of the EU Commission to the position paper of Finland was very negative for the part of agriculture. Finnish farmers seem to face a very difficult future in the EU, if considerable improvements in the support policy of the EU cannot be reached in the negotiations for the part of northern agriculture.

Exchange rate at the end of December, 1993:

US\$ = FIM 5.76

Explanation of symbols

- e Preliminary data
- Magnitude nil
- .. data not available or too uncertain to express

Sources:

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The Report of the "Agricultural 2000" Commission, 1987:24
The Compendium of Laws and Statutes

Appendix 1. Producer price index and cost price index in agriculture with subsidies (1970=100).

	Producer price index of agriculture	Cost price index	Requisites and tools	Machines	Buildings
1976	213.6	238.4	255.3	231.2	255.4
1977	229.4	273.6	267.3	258.1	281.4
1978	242.5	285.4	273.8	282.2	294.9
1979	257.2	304.3	282.8	308.7	325.6
1980	288.2	341.7	318.0	341.2	372.1
1981	324.5	394.0	384.9	374.6	400.8
1982	370.0	427.5	423.2	404.0	424.2
1983	394.8	464.2	461.3	445.7	454.3
1984	419.6	501.7	504.0	474.1	479.2
1985	448.4	527.0	531.4	495.9	499.6
1986	456.5	518.6	506.4	517.7	517.1
1987	463.7	522.8	499.5	534.1	535.1
1988	480.7	537.5	496.9	561.9	563.4
1989	500.0	566.5	518.1	590.2	602.5
1990	500.0	607.6	557.4	630.4	647.2
1991	481.5	634.9	600.9	632.3	656.9
1992	478.0	652.6	616.5	656.2	639.4
1993 ^{e)}	477.0	663.5	626.5	712.4	638.1

Appendix 2. Some figures of the agricultural structure.

	Number ¹⁾ of farms 1000	Average ¹⁾ size of farms, hectares	Number of milk suppliers 1000	Employed in agriculture ²⁾ 1000 persons	% of total employed
1976	242.7	10.26	119	306	13.4
1977	237.7	10.43	112	278	12.5
1978	232.8	10.60	104	261	11.9
1979	229.3	10.78	98	251	11.1
1980	224.7	10.96	91	251	10.8
1981	218.9	11.16	85	250	10.6
1982	212.6	11.42	78	255	10.7
1983	208.2	11.63	74	246	10.3
1984	203.9	11.85	70	242	10.0
1985	200.5	12.07	66	228	9.4
1986	195.4	12.38	63	218	9.0
1987	192.2	12.59	58	206	8.5
1988	189.0	12.77	53	197	8.1
1989	48	179	7.2
1990	199.4	12.76	45	170	6.9
1991	200.0	12.90	40	166	7.1
1992	197.6	13.05	36	157	7.2
1993 ^{e)}			34		

¹⁾over 1 hectare

²⁾Source: Finnish Labour Review, Ministry of Labour Planning Secretariat

^{e)}estimate

Appendix 3. Number of animals in June and the average yield per cow.

	Dairy cows 1000	Yield per cow litres	Pigs 1000	Hens 1000
1973	823.6	3839	1139.3	5869.0
1974	818.5	3856	1048.9	5803.2
1975	773.2	3997	1036.1	5943.3
1976	763.1	4200	1053.9	6333.2
1977	751.6	4197	1143.3	6245.1
1978	742.0	4260	1244.7	6046.4
1979	730.1	4336	1288.7	6029.4
1980	719.5	4478	1410.2	6040.7
1981	700.8	4450	1467.1	5200.2
1982	689.2	4493	1475.3	5291.5
1983	663.1	4778	1440.7	5440.4
1984	659.5	4799	1381.8 ¹⁾	6025.3
1985	627.7	4812	1295.2 ¹⁾	5922.4
1986	606.8	4935	1322.7 ¹⁾	5532.1
1987	589.0	4905	1341.9 ¹⁾	5341.6
1988	550.6	4990	1305.1 ¹⁾	5237.6
1989	506.6	5246	1290.7 ¹⁾	4923.3
1990	489.9	5547	1394.1 ¹⁾	4844.8
1991	445.6	5619	1344.3 ¹⁾	4138.0
1992	428.2	5613	1297.9 ¹⁾	3968.9
1993	426.4	5615 ^{e)}	1272.7 ¹⁾	4024.9

¹⁾Including the pigs of dairies
^{e)}estimate

Appendix 4. Sales of fertilizers (kg/ha).

	N	P	K
1973-74	78.2	33.4	52.0
1974-75	85.8	34.2	53.9
1975-76	79.6	29.5	47.6
1976-77	65.4	25.0	41.1
1977-78	69.1	25.8	43.3
1978-79	76.9	27.8	47.4
1979-80	83.3	28.0	50.2
1980-81	82.4	27.8	49.3
1981-82	78.7	26.8	47.5
1982-83	91.4	29.9	53.8
1983-84	90.7	30.9	55.9
1984-85	88.9	30.8	56.5
1985-86	90.0	30.2	55.5
1986-87	94.4	31.0	56.5
1987-88	98.2	32.0	59.3
1988-89	100.3	29.7	56.1
1989-90	111.5	30.7	57.6
1990-91	109.4	26.3	53.4
1991-92	92.8	19.9	39.7
1992-93	94.3	19.4	39.8

Appendix 5. Agricultural total calculation, gross return in current prices, FIM mill.

	1987	1988	1989	1990	1991	1992 ⁹⁾
Crop production						
- Rye	189.0	163.3	448.5	430.8	492.6	121.5
- Wheat	933.4	659.6	1028.5	1415.0	954.7	938.4
- Barley	1196.6	1266.0	1435.8	1552.8	1510.9	1730.6
- Oats	517.1	571.8	901.6	1377.3	997.3	865.5
- Potatoes	640.4	517.9	457.9	313.4	359.7	397.0
- Potatoes of processing	92.2	223.7	260.9	226.2	164.8	163.1
- Seed potatoes	6.9	10.7	10.8	9.3	6.2	7.9
- Sugar beets	243.4	489.2	555.2	545.8	472.2	475.3
- Oil plants	454.3	461.7	515.5	526.6	439.9	326.3
- Peas	11.2	13.6	16.3	19.3	28.4	32.7
- Grass seeds	17.4	44.3	47.1	62.4	44.7	43.3
TOTAL	4302.0	4422.0	5678.2	6478.8	5471.4	5101.8
Garden production						
- Root crops	73.6	126.9	93.3	94.0	110.5	91.3
- Vegetables	553.1	533.9	604.7	571.2	554.4	553.0
- Berries	119.0	119.7	164.0	192.9	155.0	187.2
- Fruits	15.9	44.2	53.3	20.0	21.2	22.9
TOTAL	761.6	824.7	915.3	878.1	841.1	854.4
Animal production						
- Milk	7893.0	7638.3	8170.6	8439.2	7730.4	7391.6
- Beef	3547.3	3411.1	3520.9	3794.7	3582.6	3521.7
- Veal	2.0	1.1	0.8	0.5	0.5	0.3
- Pork	2907.9	2924.5	3141.2	3302.0	2942.3	2869.9
- Mutton	41.9	36.3	37.1	43.2	38.1	42.1
- Horse meat	19.2	14.6	15.6	17.3	18.5	21.3
- Poultry	334.7	365.4	392.6	438.6	494.8	449.2
- Eggs	865.4	848.3	889.1	902.3	793.4	806.9
- Wool	2.2	1.6	2.4	2.4	2.5	3.1
- Export of animals	11.2	10.6	6.6	9.9	1.2	1.3
TOTAL	15624.8	15251.7	16177.0	16950.2	15604.2	15107.3
PRODUCTION TOTAL	20688.4	20498.4	22770.6	24307.1	21916.8	21063.5
Income from rents						
- Means of production	457.0	469.4	511.7	581.1	461.5	460.4
- Buildings and land	165.3	166.9	175.1	184.9	189.3	195.3
TOTAL	622.3	636.3	686.8	766.0	650.8	655.7
Subsidies						
- by farm size	531.4	644.6	1340.9	961.5	840.3	758.6
- by number of cows	127.8	145.3	180.5	191.8	188.8	206.9
- Premium of feed grains	41.4	39.6	42.0	45.7	33.6	27.4
- "Start money"	149.3	132.0	116.0	107.0	97.2	85.3
- Premium for suckler cows			10.0	20.3	27.0	37.8
- Support for field area				564.1	827.0	1116.3
TOTAL	849.9	961.5	1689.4	1890.4	2013.9	2232.4
Compensations to reduce production						
- Production guiding (4a§)	16.5			7.8	5.1	3.1
- Milk bonus	74.1	142.8	141.2	140.5	335.9	330.8
- Pork bonus	11.7					
- Egg bonus	37.7	0.8	12.8	41.8	61.4	
- For decreasing animal production	36.1	31.8	22.7			
- Premium of beef	5.1	5.3	2.2			

Appendix 5, continued.

	1987	1988	1989	1990	1991	1992 ^{e)}
- Fallowing compensations	110.0	209.3	375.5	347.3	729.3	567.8
- Premium for ecological cultivation				16.5	29.4	40.5
- Premium for pea cultivation					23.5	27.4
- Premium for green hay					0.3	0.9
TOTAL	291.2	390.0	554.4	553.9	1184.9	970.5
Compensations for crop damages	34.3	1541.4	128.9	8.1	4.6	15.0
GROSS RETURN TOTAL	22486.1	24027.5	25830.1	27525.5	25770.9	24937.1
Costs						
- Fertilizers	1604.2	1605.9	1674.1	1681.7	1509.9	1579.6
- Lime	127.6	119.0	130.4	146.3	118.6	85.4
- Feed concentrates						
- mixture	2938.8	3069.4	3488.5	3056.3	2966.0	2655.5
- other	139.9	122.0	126.2	87.8	38.7	41.0
- Feed conserving chemicals	140.3	145.2	152.1	162.3	142.8	122.6
- Pesticides	282.2	291.9	342.6	308.6	328.4	318.0
- Purchased seeds	590.5	601.9	520.6	388.7	317.2	260.9
- Fuel and lubricants	596.4	492.2	564.3	709.6	633.3	663.4
- Electricity	398.8	369.5	348.3	386.2	411.7	434.3
- Agricultural firewood and timber	126.1	126.9	131.8	140.5	77.9	67.7
- Delivery of calves and pigs	47.2	45.8	47.3	53.6	55.6	55.4
- Overhead costs	1348.6	1342.2	1416.4	1526.1	1639.7	1681.9
- Hired labor						
- wages	386.0	363.2	406.4	418.2	456.5	561.1
- social expenses	207.4	204.3	247.7	273.1	283.2	356.2
- Machinery and equipment expenses						
- depreciations	3005.0	3056.0	3189.0	3380.0	3269.0	3322.0
- maintenance	814.5	807.8	868.5	936.0	876.8	961.2
- Equipment	147.8	144.4	156.4	168.4	154.3	157.1
- Building expenses						
- depreciations	1092.0	1154.0	1248.0	1364.0	1405.0	1254.0
- maintenance	433.5	433.7	478.6	488.1	490.1	465.4
- Interest payment	1231.8	1338.0	1540.4	1688.5	1807.2	1820.0
- Imports of animals	1.6	3.1	4.0	6.7	5.5	6.0
- Rent expenses						
- means of production	316.7	298.3	316.2	358.5	297.0	289.4
- buildings and land	256.9	270.0	308.0	346.0	335.2	339.3
- Farmers' share of costs from						
- accident insurance payment	28.4	34.9	45.9	58.9	48.5	42.9
- outside help	18.4	17.1	16.5	20.1	25.6	25.0
- days-off scheme	11.0	12.6	12.4	13.7	17.2	17.0
COSTS TOTAL	16291.7	16469.2	17780.6	18168.0	17710.8	17582.3
GROSS RETURN TOTAL	22486.1	24027.5	25830.1	27525.5	25770.9	24937.1
COSTS TOTAL	16291.7	16469.2	17780.6	18168.0	17710.8	17582.3
FARM INCOME	6194.4	7558.3	8049.5	9357.5	8060.1	7354.8

^{e)} estimate

Appendix 6. Agricultural total calculation, gross return in 1990 fixed prices, FIM mill.

	1987	1988	1989	1990	1991	1992 ^{e)}
Crop production						
- Rye	218.3	172.4	434.1	430.8	533.2	140.6
- Wheat	1099.7	752.3	1008.4	1415.0	1108.8	1105.5
- Barley	1243.3	1294.5	1399.9	1552.8	1657.5	1849.5
- Oats	557.5	597.2	872.0	1377.3	1107.8	962.9
- Potatoes	283.3	269.1	328.9	313.4	337.6	304.4
- Potatoes of processing	103.6	233.9	263.8	226.2	146.1	174.4
- Seed potatoes	7.1	10.9	10.8	9.3	6.1	7.4
- Sugar beets	224.1	487.2	512.4	545.8	532.9	509.5
- Oil plants	481.0	481.4	512.5	526.6	465.2	381.7
- Peas	10.5	15.2	15.9	19.3	34.0	37.8
- Grass seeds	10.0	29.3	43.0	62.4	50.1	50.1
TOTAL	4238.4	4343.6	5401.8	6478.8	5979.3	5523.8
Garden production						
- Root crops	64.3	126.3	116.5	94.0	108.1	91.4
- Vegetables	418.4	538.3	563.0	571.2	552.7	564.3
- Berries	147.2	166.0	177.6	192.9	171.4	209.4
- Fruits	37.1	37.2	44.1	20.0	25.4	32.3
TOTAL	667.0	867.8	901.2	878.1	857.6	897.4
Animal production						
- Milk	8816.2	8260.8	8272.8	8439.2	7615.6	7388.3
- Beef	3961.1	3578.8	3442.3	3794.7	3908.1	3766.1
- Veal	2.1	1.1	0.8	0.5	0.5	0.3
- Pork	3108.6	2988.9	3078.6	3302.0	3126.5	3109.2
- Mutton	52.4	41.3	38.1	43.2	40.6	47.3
- Horse meat	21.3	15.5	15.8	17.3	20.6	27.3
- Poultry meat	352.6	367.6	400.2	438.6	493.6	473.6
- Eggs	954.2	905.8	892.8	902.3	790.1	797.2
- Wool	2.7	2.6	2.3	2.4	2.3	2.6
- Export of animals	12.7	11.6	6.8	9.9	1.3	1.3
TOTAL	17284.0	16174.1	16150.6	16950.2	15999.2	15613.1
PRODUCTION TOTAL	22189.4	21385.5	22453.6	24307.1	22836.1	22034.3
Income from rents						
- Means of production	519.5	513.5	534.6	581.1	446.3	448.8
- Buildings and land	185.2	180.8	180.8	184.9	188.2	190.0
TOTAL	704.7	694.2	715.4	766.0	634.5	638.9
Subsidies						
- by farm size	595.3	698.1	1384.3	961.5	835.6	738.0
- by number of cows	143.2	157.4	186.3	191.8	187.8	201.3
- Premium of feed grains	46.4	42.9	43.4	45.7	33.4	26.7
- "Start money"	167.2	143.0	119.8	107.0	96.6	83.0
- Premium for suckler cows			10.3	20.3	26.9	36.8
- Support for field area				564.1	822.4	1086.0
TOTAL	952.1	1041.3	1744.1	1890.4	2002.7	2171.8
Compensations to reduce production						
- Production guiding (4a§)	18.5			7.8	5.1	3.0
- Milk bonus	83.0	154.7	145.8	140.5	334.0	321.8
- Pork bonus	13.1					
- Egg bonus	42.2	0.9	13.2	41.8	61.1	
- For decreasing animal production	40.4	34.4	23.4			
- Premium of beef	5.7	5.7	2.3			

Appendix 6, continued.

	1987	1988	1989	1990	1991	1992 ^{e)}
- Fallowing compensations	123.2	226.7	387.7	347.3	725.3	552.4
- Premium for ecological cultivation				16.5	29.2	39.4
- Premium for pea cultivation					23.4	26.7
- Premium for green hay					0.3	0.9
TOTAL	326.2	422.4	572.3	553.9	1178.3	944.2
Compensations for crop damages	38.4	1669.4	133.1	8.1	4.6	14.6
GROSS RETURN TOTAL	24210.8	25212.8	25618.5	27525.5	26656.2	25803.8
Costs						
- Fertilizers	1615.0	1754.7	1802.2	1681.7	1209.2	1148.1
- Lime	146.3	129.2	133.7	146.3	111.5	81.2
- Feed concentrates						
- mixture	3299.0	3370.0	3647.4	3056.3	2966.3	2729.4
- other	174.2	141.2	138.4	87.8	40.0	42.7
- Feed conserving chemicals	146.6	150.6	157.4	162.3	139.4	143.3
- Pesticides	305.9	305.3	357.1	308.6	308.7	265.9
- Purchased seeds	677.4	648.3	542.6	388.7	327.6	289.0
- Fuel and lubricants	776.6	689.4	678.2	709.6	613.1	609.2
- Electricity	432.5	405.9	373.8	386.2	404.1	417.6
- Agricultural firewood and timber	153.1	145.9	140.0	140.5	82.4	82.4
- Delivery of calves and pigs	53.7	51.1	52.3	53.6	51.6	50.9
- Overhead costs	1513.9	1455.1	1426.6	1526.1	1634.8	1632.9
- Hired labor						
- wages	496.1	442.0	438.6	418.2	408.0	489.3
- social expenses	266.5	248.6	267.3	273.1	253.1	310.6
- Machinery and equipment expenses						
- depreciations	3446.0	3388.0	3375.0	3380.0	3322.0	3155.0
- maintenance	976.7	917.0	939.9	936.0	826.4	855.9
- Equipment	174.6	162.1	167.0	168.4	153.8	150.9
- Building expenses						
- depreciations	1316.0	1325.0	1340.0	1364.0	1388.0	1409.0
- maintenance	520.9	497.9	514.1	488.1	485.3	463.9
- Interest payment	1535.1	1685.1	1780.4	1688.5	1709.6	1657.6
- Imports of animals	1.8	3.4	4.1	6.7	5.6	6.1
- Rent expenses						
- means of production	360.0	326.4	330.4	358.5	287.2	282.1
- buildings and land	287.8	292.4	318.0	346.0	333.3	330.1
- Farmers' share of costs from						
- accident insurance payment	31.8	37.8	47.4	58.9	48.2	41.7
- outside help	20.6	18.5	17.0	20.1	25.5	24.3
- days-off scheme	12.3	13.6	12.8	13.7	17.1	16.5
COSTS TOTAL	18740.2	18604.5	19001.6	18168.0	17151.9	16685.6
GROSS RETURN TOTAL	24210.8	25212.8	25618.5	27525.5	26656.2	25803.8
COSTS TOTAL	18740.2	18604.5	19001.6	18168.0	17151.9	16685.6
FARM INCOME	5470.6	6608.2	6616.9	9357.5	9504.2	9118.2

^{e)} estimate

Appendix 7. Target prices of agricultural products in 1971-1993.

	Rye ¹⁾ (South. area) p/kg	Wheat ¹⁾ p/kg	Milk ²⁾ p/l	Beef ⁴⁾ (all) FIM/kg	Pork FIM/kg	Eggs ³⁾ FIM/kg	Feed- barley ¹⁾ p/kg	Feed- oats ¹⁾ p/kg	Mutton ⁵⁾ FIM/kg
1.1.1971	64.00		51.52	5.93	4.42				
1.9.1971			52.79	6.08					
1.4.1972	66.00	62.00	59.00	6.48	4.42	3.50			
1.4.1972 ⁶⁾	68.85	65.00	65.67	6.54	4.44	3.50	(44.09)	(39.89)	(5.23)
1.5.1973	72.85		71.67	7.54	5.01	3.85	46.09	41.89	7.54
1.4.1974	78.85	70.50	80.00	8.51	5.55	4.25	53.09	48.89	9.04
1.9.1974			84.67		5.88	4.48			
1.4.1975 ⁷⁾	94.85	85.00	87.67	9.76	7.21	5.38	68.09	63.89	11.04
1.9.1975			92.67		7.46	5.52			
1.12.1975				9.85		5.38			
1.3.1976	97.85	87.00	108.70	10.35	8.01	5.52	72.09	65.89	12.04
1.3.1977 ⁸⁾		90.00	119.20	11.75	8.78		76.09	69.89	14.04
1.9.1977			123.20	13.65	9.11				15.94
1.5.1978			126.20						
1.9.1978	104.85	96.00	130.90	14.05	9.36	5.87	78.59	72.39	16.54
1.2.1979 ⁹⁾	114.85	106.00	134.60	14.40	9.66	6.17	83.59	77.39	17.04
1.9.1979	124.85	114.00		14.90		6.30			17.54
1.4.1980	159.00	148.00	146.60	16.40	10.31	6.85	101.00	94.50	19.10
1.9.1980	161.00	150.00	152.60	17.14	10.91	7.25	103.00	96.50	20.00
1.3.1981	177.00	164.00	160.60	18.69	11.86	7.85	123.00	114.50	21.50
1.9.1981	187.00	172.00	171.90	19.44	12.31	8.20	128.00	119.50	22.30
1.3.1982	207.00	190.00	182.90	20.44	13.01	8.75	142.00	133.50	23.40
1.9.1982			188.90	20.73	13.14	8.88			23.80
1.9.1982 ¹⁰⁾	202.70	185.80					138.00	129.50	
1.3.1983			197.20	21.56	13.68	9.23			24.80
1.4.1983	220.70	204.80	202.70	22.01	13.98	9.46	151.00	141.50	25.30
1.9.1983			205.70	22.31	14.18	9.60			
1.3.1984	231.00	211.00	212.70	23.01	14.68	9.90	156.00	146.00	
1.4.1984	245.00	218.00	216.70	23.31	14.98	10.05	161.00	150.00	25.60
1.9.1984			221.60	23.91	15.38	10.20			26.15
1.3.1985	264.00	231.00	228.60	24.67	16.05	10.50	170.00	158.00	
1.9.1985			230.10						
1.1.1986						9.00			
1.4.1986	270.00	233.00	232.00	24.97	16.25	8.80			25.15
1.3.1987			234.50	25.10	16.30				24.65
1.4.1988	300.00	243.00	244.50	26.10	17.00	9.10	175.00	166.00	25.90
1.1.1989			259.50						
1.3.1989	310.00	251.00	269.00	27.80	17.95	9.20	178.00	176.00	27.45
1.3.1990 ¹¹⁾			277.00	28.22	18.06	9.20	180.00	175.00	27.88
1.3.1991			282.00	28.42			182.00	172.00	
1.9.1991	290.00	231.00							
1.5.1992				27.92					
1.7.1993	285.00	226.00					177.00	167.00	

For footnotes, see next page

Footnotes for Appendix 7.

- ¹⁾ The price of grain beginning from 1.4.1972 is the price of January, before that the price of September. It comes into force from the beginning of the growing period. From the crop year 1983/84 the target prices of grain are on farm level. Before that they are wholesale prices for purchases of the Finnish State Granary.
- ²⁾ The price of milk with 4 % fat p/kg and from 1973 milk with medium fat p/l without production support. The additional price of milk is paid as follows:
 from 1.9.1988 23.5 p/l up to 37 000 litres, thereafter 12.0 p/l up to 150 000 litres
 from 1.9.1989 30.0 p/l up to 37 000 litres, thereafter 15 p/l up to 150 000 litres
 from 1.9.1989 30.0 p/l up to 50 000 litres, thereafter 15 p/l up to 150 000 litres
 from 1.4.1991 see appendix 8.
- The volume of milk which gives the base for the payment of the step-up additional price is counted on an annual basis starting from 1.9.
- ³⁾ The additional price for eggs paid for beginning from 1.9.1988 is following:
- a) Production quota 0 - 10 000 kg
- | | Oulu and Lapland | The rest of the country |
|----------------|------------------|-------------------------|
| from 1.9.1988 | 2.90 FIM/kg | 2.55 FIM/kg |
| from 1.3.1989 | 3.35 FIM/kg | 2.95 FIM/kg |
| from 1.3.1990 | 3.74 FIM/kg | 3.34 FIM/kg |
| from 1.10.1990 | 3.94 FIM/kg | 3.54 FIM/kg |
| from 1.1.1991 | 4.24 FIM/kg | 3.84 FIM/kg |
| from 1.1.1993 | 4.19 FIM/kg | 3.79 FIM/kg |
| from 7.4.1993 | 3.89 FIM/kg | 3.49 FIM/kg |
- b) Production quota from 1.1.1988 10 001 - 100 000 kg and from 1.1.1991 10 001 - 80 000 kg
- | | | |
|----------------|-------------|-------------|
| from 1.9.1988 | 2.05 FIM/kg | 2.05 FIM/kg |
| from 1.3.1989 | 2.50 FIM/kg | 2.50 FIM/kg |
| from 1.3.1990 | 2.89 FIM/kg | 2.89 FIM/kg |
| from 1.10.1990 | 3.09 FIM/kg | 3.09 FIM/kg |
| from 1.1.1991 | 3.39 FIM/kg | 3.39 FIM/kg |
| from 1.1.1993 | 3.34 FIM/kg | 3.34 FIM/kg |
| from 7.4.1993 | 3.04 FIM/kg | 3.04 FIM/kg |
- ⁴⁾ In addition a production premium for beef is paid:
- | | | |
|---------------|-------------|---------------------|
| from 1.4.1988 | 4.00 FIM/kg | bulls over 260 kg |
| | 3.10 FIM/kg | bulls 210-260 kg |
| | 2.00 FIM/kg | bulls 180-210 kg |
| | 3.10 FIM/kg | heifers over 160 kg |
| | 1.00 FIM/kg | heifers 130-160 kg |
| from 1.3.1989 | 2.00 FIM/kg | bulls 190-219 kg |
| | 3.50 FIM/kg | bulls 220-269 kg |
| | 5.00 FIM/kg | bulls over 270 kg |
| | 1.00 FIM/kg | heifers 140-169 kg |
| | 3.50 FIM/kg | heifers 170-259 kg |
| | 5.00 FIM/kg | heifers over 260 kg |
- from 1.5.1991 see appendix 9.
- ⁵⁾ In addition a production premium for mutton is paid:
- | | | |
|---------------|-------------|------------|
| from 1.3.1989 | 8.80 FIM/kg | over 16 kg |
| | 6.70 FIM/kg | 13-15 kg |
- from 1.5.1991 see appendix 9.
- ⁶⁾ New statistical basis for beef and pork.
- ⁷⁾ Target prices for meat were applied from 1.3.
- ⁸⁾ Target prices for meat were applied from 1.2. and for eggs from 1.4.
- ⁹⁾ Target prices for meat were applied from 12.1.
- ¹⁰⁾ Grain prices on farm level from 1982.
- ¹¹⁾ Price for beef, pork and mutton adjusted to the abolition of the weight reduction. Price for eggs represents IA-class.

Appendix 8. Production support for milk (p/l).¹⁾

District	0 - 50 000			Milk quantity, litres 50 001 - 150 000			over 150 000		
	A	B	C	A	B	C	A	B	C
1	99.0	95.0	97.0	84.0	80.0	82.0	69.0	65.0	67.0
2	73.0	69.0	71.0	58.0	54.0	56.0	43.0	39.0	41.0
3	62.0	58.0	60.0	47.0	43.0	45.0	32.0	28.0	30.0
4	55.0	51.0	53.0	40.0	36.0	38.0	25.0	21.0	23.0
5	46.5	42.5	45.0	31.5	27.5	30.0	16.5	12.5	15.0
6	43.0	39.0	41.0	28.0	24.0	26.0	13.0	9.0	11.0
7	36.5	32.5	35.0	21.5	17.5	20.0	6.5	2.5	5.0
8	34.5	30.5	33.0	19.5	15.5	18.0	4.5	-	3.0
9	55.0	51.0	53.0	40.0	36.0	38.0	25.0	21.0	23.0
10	30.0	26.0	28.0	15.0	11.0	13.0	-	-	-

A = 1.4.-30.9.1991 and 1.9.1992-31.5.1993

B = 1.10.1991-31.8.1992

C = From 1.6.1993

¹⁾ Including additional price and district support.

Appendix 9. Production support for meat (p/kg).¹⁾

Species	District								
	1	2	3	4	5	6	7	8	9
<i>1.5.1991-30.4.1992</i>									
Bulls and heifers 260 kg and over	1460	1350	1130	840	780	660	550	950	500
Bulls 220 - 259.9 kg and heifers 170 - 259.9 kg	1310	1200	980	690	630	510	400	800	350
Bulls 190 - 219.9 kg	1160	1050	830	540	470	360	250	650	200
Heifer	350	350	350	350	350	350	350	350	350
Sheep 16 kg and over	2140	2000	1790	1580	1280	1280	1280	1740	950
Pigs	85	75	55	40	-	-	-	40	-
<i>1.5.-31.12.1992</i>									
Bulls and heifers 240 kg and over	1610	1500	1280	990	930	810	700	1100	650
Bulls 210 - 239.9 kg and heifers 170 - 239.9 kg	1460	1350	1130	840	780	660	550	950	500
Bulls 190 - 209.9 kg	1310	1200	980	690	620	510	400	800	350
Heifer	500	500	500	500	500	500	500	500	500
Sheep 16 kg and over	2140	2000	1790	1580	1280	1280	1280	1740	950
Pigs	85	75	55	40	-	-	-	40	-
<i>1.1.-31.5.1993</i>									
Bulls and heifers 220 kg and over	1610	1500	1280	990	930	810	700	1100	650
Bulls 190 - 219.9 kg and heifers 170 - 219.9 kg	1460	1350	1130	840	780	660	550	950	500
Heifer	400	400	400	400	400	400	400	400	400
Sheep 16 kg and over	2140	2000	1790	1580	1280	1280	1280	1740	950
Pigs	85	75	55	40	-	-	-	40	-

Appendix 9, continued.

Species	District								
	1	2	3	4	5	6	7	8	9
<i>From 1.6.1993</i>									
Bulls and heifers 220 kg and over	1660	1550	1330	1040	980	860	750	1150	700
Bulls 190 - 219.9 kg and heifers 170 - 219.9 kg	1510	1400	1180	890	830	710	600	1000	550
Heifer	400	400	400	400	400	400	400	400	400
Sheep 16 kg and over	2140	2000	1790	1580	1280	1280	1280	1740	950
Pigs	85	75	55	40	-	-	-	40	-

¹⁾Including production premium and district support.

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