



**FINNISH AGRICULTURE
IN 1987**

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Abstract. Finnish agriculture in 1987

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In summer 1987 agriculture was met with a very serious crop failure. On average the crop level was 34 % smaller than in the previous year. The yield per hectare of spring wheat and feed grain remained 32—37 % below the yield in 1986.

The summer was colder than usual and the growing period remained 2—3 weeks behind the normal. The night frost in August and the rainy autumn destroyed the crop.

Nearly 75,000 farmers reported crop damages, which amounted to FIM 3.3 billion. The compensation will amount to FIM 1.54 billion, of which FIM 310 million will be deducted as agricultural income in the next price negotiations.

The effects of the crop failure on animal production was actually noticeable only in milk production, which decreased by 4 %. Beef production remained at the same level as in the previous year. Pork production increased by about 3 million kg. There was a considerable increase in poultry production, 4.5 million kg. Egg production has been reduced through various measures and with good results. In 1987 egg production decreased by 3 million kg.

Decrease in production is a result of the crop failure as well as more effective measures to restrict production. The dual price systems for milk and eggs are reducing production gradually. Other voluntary measures have a similar effect. The act on restricting land clearing came into force last year.

Last year there was hardly any inflation in agriculture. The price index of production inputs rose only by less than one percent. In the spring the target prices were raised by 0.6 % but in the autumn there was no need for further raises. Prices of production inputs remained almost at the level of the previous year.

Due to the crop failure the development of incomes was bad and, according to a preliminary estimate, agricultural income decreased by about 21 %. It is estimated that the crop failure reduced the growth of the gross domestic product by 0.5 %.

Index words: production, price, income, yields

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Preface

This publication is a brief review of agriculture in Finland in 1987. The statistical data are based on the situation in mid-January, when no final information on production, consumption and price figures was available. Consequently, e.g. the production figures may change slightly from the estimates presented here. The estimates of income development are only preliminary. Final agricultural incomes statistics will not be ready until after a couple of years.

Part III of the publication contains some basic facts about agricultural policy in 1987. It is very brief and does not cover the whole sector but I hope it will give the reader some idea of the main trends of our agricultural policy. Much of the information in this part is partly preliminary, too.

I wish to thank Lulu Siltanen, Jaana Ahlstedt, Marja Hokkanen, Jukka Kola, Juhani Leppälä and Maija Puurunen from the Institute as well as Helena Serén from the National Board of Agriculture for their assistance in preparing this publication. I also thank Jaana Kola for the English translation. The author alone should naturally be held responsible for possible mistakes and defects. The valuations and viewpoints presented here are those of the author and do not represent the views of the Research Institute.

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Helsinki, January 20, 1988

Lauri Kettunen

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I FINNISH AGRICULTURE IN GENERAL

1. The role of agriculture in the whole economy

1.1. Gross domestic product and investments

The contribution of agriculture to the whole economy is small in all industrialized countries. There is a natural explanation for this: the activities carried out in agriculture have shifted to other sectors of the economy. Agriculture used to be more or less self-sufficient, but nowadays it uses an abundance of purchased inputs such as fertilizers, machinery, fuel and services. Agriculture also accounts for a smaller proportion of total production, since it has not grown as much as production in other sectors. This is because growth in consumption of agricultural products has been slow

and the expansion of exports of agricultural products has not been profitable.

Agriculture in Finland accounts for about 4.2% of the gross domestic product (Table 1) but for about 9% of the labour force (Appendix 2). The latter figure is thus twice as high as that for GDP. Although this reflects partly the low income level in agriculture, it should be remembered that only about 50% of farmers' incomes come from agriculture; the majority of them work outside agriculture.

Agricultural investments account for about 6 % of the investments of the whole national economy (Table 1), i.e., proportionally, more than its share of the domestic product would imply. This is probably due to a strong structural change in agriculture and, in general, to the fact that agriculture is a very capital intensive industry, among other things. Furthermore, it is to be noted that investments have been proportionally higher in

Table 1. Gross domestic product and investments in the whole economy and in agriculture.

Year	Gross domestic product			Investments		
	total		agriculture	total	agriculture	
	FIM bill.	FIM bill.	%	FIM bill	FIM bill	%
1960	14.08	1.51	10.7	4.33	0.37	8.5
1965	23.15	2.04	8.8	6.71	0.45	6.7
1970	38.91	2.70	6.9	11.62	0.63	5.6
1975	92.95	5.06	5.4	30.16	1.36	4.5
1980	172.78	7.94	4.6	46.16	3.04	6.6
1981	195.65	7.81	4.0	51.40	3.10	6.0
1982	219.84	9.61	4.4	60.99	4.29	7.0
1983	246.33	11.40	4.6	68.99	4.65	6.7
1984	275.24	12.44	4.5	72.27	4.58	6.3
1985	298.67	12.43	4.2	78.34	4.76	6.1
1986	315.73	13.28	4.2	82.39	4.59	5.6

Source: Statistical yearbook of Finland (from various years) and Economic Survey 1987.

the 1980s than in the 1970s. The turning-point has probably been reached, however. Tractor sales decreased very strongly in 1987, which may be an indication of decrease of agricultural investments in general as a result of restrictions on production.

1.2. Economic growth

Finnish economy has grown steadily already for five years. According to a preliminary estimate, the growth in GDP was about 3.5 % (in 1986 it was about 3 %). The crop failure in agriculture decreased growth by about 0.5 %. Growth has been maintained by an about 4 % increase in consumption and investments and an about 6 % increase in exports. Especially early this year there was a lot of economic activity. By the end of the year the tempo seemed to slow down because of e.g. decrease in exports to the Soviet Union. There were no real problems, however. Economic growth in Finland is slightly higher than the average growth of OECD.

Inflation, however, has been the same in Finland as in OECD countries (3.7 % in 1987, i.e. the same as in 1986). In 1986 two-year agreements were made in the wage policy. They seemed quite moderate, but, with regard to our competitiveness in the international markets, they may still have been too high. Nominal income rose by about 7.5 %, which means a 4 % growth in real income. Employment improved slightly as a result of the economic growth. The compilation of employment statistics was revised last year; unemployment is now about 5 %. As far as employment is concerned, our situation is somewhat better than the average in industrialized countries.

Foreign trade was satisfactory as far as commodity export is concerned, and the trade balance showed a surplus of FIM 4.4 billion. But the capital and service accounts drop the current account deficit to about FIM 6 billion. This deficit forms a threat to the otherwise quite positive economic development.

Foreign exchange reserves have grown as a result of foreign investments. The

interest rate in Finland has been higher than the international interest rate, and, as the Finnish mark has been strong, foreign capital has flown to Finland. The high interest rate has been criticized, but the Bank of Finland regards it as necessary for maintaining the value of the Finnish mark.

There has been a big change going on in the Finnish money market: liberalization. There is more money than before, and gradually we have come to the point where banks are offering loans, whereas earlier getting a loan used to be difficult. But the loosening of the money market has led to over-heating in e.g. the housing market and to big raises in the housing prices. From the beginning of the year until October the stock exchange rates went up by 70 %. This was followed by a collapse in Finland, too. However, at the end of the year the rates were 40% higher than at the beginning of the year, and, consequently, the collapse was only a slight correction in the too quick raise of stock exchange rates. It seems that the loosening of the money markets has little effect on agriculture.

Last year was a strong period for forestry, which is important for a Finnish farmer. Pulp and paper industry were working with their full capacity and commercial felling increased by 8.5%. There was a shortage of timber and the production of sawn goods decreased. Wood processing industry and the owners of forests have annually negotiated the stumpage prices for roundwood

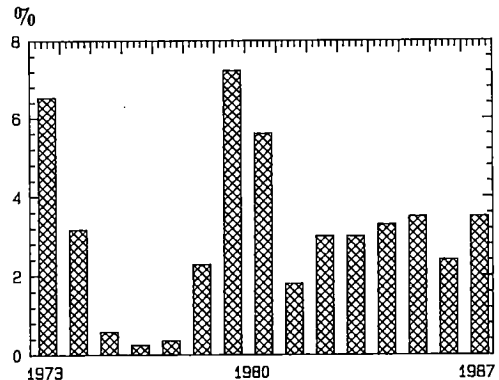


Figure 1. Growth in the volume of the gross domestic product, %/year.

and the price level has remained quite steady.

1.3. The Finnish farm

Finnish agriculture is based on family farms. The average size of farms is still relatively small (about 12 ha), though it has grown somewhat in recent years (Table 2). As small farms stop producing, the average size of farms will be raised. Nevertheless, the number of larger farms has not increased very much and present agricultural policy does not even support expansion of farms.

Actually, farm size can be increased through renting land. In 1987 about 255,500 ha of arable land was rented. Because the price of land is high and farms are not likely to be sold, renting land seems to be the only way to enlarge farms in the future.

Forest is an integral part of the Finnish farm, the average farm comprising 12 ha arable land and 36 ha forest. The regional distribution, however, varies. In general, there is more arable land in the south than in the north but correspondingly more forest in the north (Table 3).

About 99 % of farms are privately owned, but a large number of them belong to pensioners or heirs. Thus, only about half of the farms are owned by

active farmers, and this group includes many farmers who are in fact part-time farmers and have other occupations.

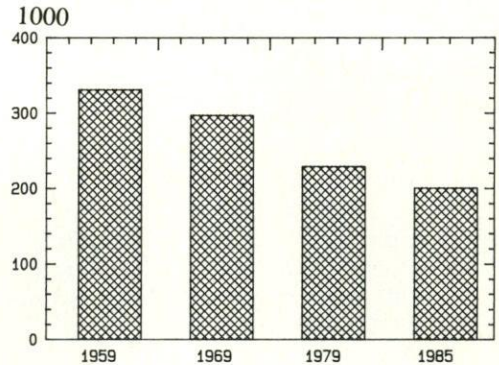


Figure 2. Number of farms 1959—1985.

Table 3. The regional distribution of arable and forest land per farm (hectares) in selected provinces in 1984.

Province	Arable land and gardens	Forest land
Uusimaa	19.6	28.7
Häme	15.1	31.5
Vaasa	12.2	26.0
Kuopio	10.3	37.7
Oulu	9.9	47.0
Lappi	6.6	81.2
Whole country	11.9	36.2

Source: Farm registers.

Table 2. The size and distribution of farms (over 1 ha).

	1959		1969		1980		1985	
	1000	%	1000	%	1000	%	1000	%
1—4.9	147.6	44.6	108.8	36.6	69.4	30.9	58.3	29.1
5—9.9	101.8	30.7	98.0	33.0	69.2	30.8	56.1	28.0
10—19.9	62.2	18.8	68.0	22.9	56.8	25.3	53.3	26.6
20—49.9	18.0	5.4	20.6	6.9	26.4	11.7	29.4	14.7
50—	1.6	0.5	1.9	0.6	2.9	1.3	3.4	1.7
Total	331.2		297.3		224.7		200.5	
Arable land								
1000 ha	2 614.4		2 669.1		2 462.7		2 420.2	
average size ha	7.89		8.98		10.96		12.07	

Source: Official statistics and farm registers.

There are about 200,000 farms in Finland, but only half of them are real producing farms.

The pensioners owned 19.3 % of the private farms in 1984. Farmers and the pensioners, thus, owned 80.1 % of all farms, heirs and farm companies 19.2 % and others 0.7 %.

Finnish agricultural production is very intensively based on livestock. Only 15 % of the arable land is used for plant production for human consumption. Milk accounts for 38 % of the total value of production (calculated from appendix 5), and cattle for 53 %, when beef production is taken into account. Hay, silage and pasture constitute about one third of the total arable land. The structure of production has changed over the years, the contribution of milk having decreased but that of meat increased.

The specialization of farming accelerated in the 1960's and 1970's. Milk used to be produced on almost all farms, but, according to dairy statistics, in June 1987 there were only 58,600 milk suppliers. About half of the farms have no animals.

1.4. Side-line industries

In addition to actual agriculture and forestry, farmers practise many other industries, e.g. horticulture, fishing, fur ranching, farmhouse holidays etc. Some general facts about these industries are presented in the following. There are no statistics available from 1987, and no complete ones even from 1986.

This publication is mainly concerned with actual agriculture, which includes only outdoor garden production. *Greenhouse production* is thus excluded. Its value is about FIM 1 billion, the share of vegetables (mainly cucumber, tomatoes and lettuce) being about 45 % and the share of flowers about 55 %. In 1986 about 3,200 entrepreneurs or farmers had greenhouses, altogether 432 hectares. Thus the average size was about 1,389 m². There are no exact estimates of the

effect of this whole field on employment, but it should come to around 10,000 people.

In 1985 there were about 7,000 *professional fishermen* in Finland (2,100 full-time, 4,900 part-time). Almost 70 % practise their trade on the sea. Most fishermen are part-time farmers. In 1985 the value of the catch of fish was estimated to be about FIM 455.7 million. In addition, *fish nurseries* produced fish (mainly rainbow trout) for about FIM 227 million. Many farms lie close to lakes, which makes fishing for household use possible.

One very important side-line for agriculture is *fur ranching*, which is also practised on its own. There are more than 6,000 fur farms, of which about 60—70 % are part of a farm. In 1985 the value of fur production was about FIM 2 billion, and together with all its indirect effects fur industry employs annually about 25,000 people. Fur production is concentrated in Ostrobothnia: about 3/4 of farms are located there. The most important fur animals are mink, silver fox, blue fox, fitch and Finnraconoon.

Finland is the leading fur producer in the world. For the most part the production is exported. In 1986 the value of fur export amounted to FIM 1.7 billion. Two thirds of world fox pelt production comes from Finland. The share of mink in the value of our fur production is about 50 %, whereas our share in the world market is only 15 %.

Fur ranching is not subsidized, except that fur farms can buy feed (including domestic feed grain) for the world market price. It has to adapt itself to the changes in the world market, which may be very big. Through breeding Finnish producers have been able to adapt themselves to international competition and, despite all its risks, this field is growing.

Reindeer herding gives livelihood to about 800 households in Lapland. In addition, it is an important secondary occupation for about 1,500 households. In the herding year 1982/83 there were about 7,200 reindeer owners. At reindeer round-ups in 1986/87 there were about 362,500 animals, of which 133,000 were

slaughtered. Meat production was 3.3 million kg. The price for reindeer meat being FIM 31/kg, the value of production amounted to FIM 102 million in 1986.

Bee-keeping provides additional income to about 5,500 bee-keepers. In 1986 altogether 1.5 million kg honey was produced, and its value was about FIM 33 million.

Wild berries (cloudberry, blueberry and whortleberry) are an important source of income for many people, es-

pecially in northern Finland. In 1986 this income amounted to about FIM 45 million. In addition there is the value of the berries used in households. The income from picking mushrooms was estimated as FIM 4.4 million in 1986.

Farmhouse holidays are expected to become a new side-line industry for farmers. This activity has grown year by year and, according to estimates, the return of all holiday and travel services was about FIM 60 million in 1985.

II PRODUCTION, PRICES AND FARM INCOME

2. Plant production

2.1. Weather conditions

The growing period was extremely unfavourable last year. The winter was very cold and frost went deep in the ground because there was so little snow. In January the lowest temperatures of all times were measured in southern Finland. Frost melted slowly and sowing was started 2—3 weeks later than usual. The temperature remained below the normal and, consequently, the growing period was 2—3 weeks behind the normal during the whole summer. The growth, however, seemed quite satisfactory still in July. But the frosty nights in August destroyed all hopes for a satisfactory yield. Rainfall was above the normal during the whole summer and grain was beaten down very badly in August.

The fact that the summer came so late last year would not have been critical, if the autumn had been warm with low precipitation. But the temperatures remained below normal, which slowed down the ripening of grain. The crop failure was completed by the extremely rainy autumn, which made harvesting very difficult, because the wet fields did not always carry the combine harvesters.

The effective temperature sum for the growing period was 900—1,100 degrees in southern and central Finland and 600—900 degrees in northern Finland, i.e. about 15—20 % below the normal. In fact, the situation was even worse,

because a big part of the temperature sum came in the beginning of May when the sowing had not yet been started because of frost in the ground. In many areas this summer was the coldest in this century.

Precipitation was about 30—50 % above the normal during the growing period. Precipitation was low in the beginning of July and, consequently, the harvesting of hay succeeded quite well and the quality was good. This is the only positive thing when it comes to the weather last summer.

2.2. Areas and yields

Arable land has declined annually by around 20,000 hectares. The year 1987 was an exception, because arable land increased by 19,400 hectares as a result of increase in land clearing during the year. Total arable land was 2.41 million hectares in 1987. The area under cultivation increased by only 5,200 hectares, however, because fallowing increased by 14,400 hectares. Altogether 68,600 hectares were included in fallowing contracts and 49,500 hectares were fallowed without contracts. In addition to this, 118,700 hectares remained uncultivated, which was slightly more than in the previous year. At the moment the soil bank system covers only 11,600 hectares. The increase in the total uncultivated area indicates that the land released from annulled contracts tends to remain out of production.

The biggest change in the cultivated areas was the increase of the area under barley (62,700 hectares, 10.5 %). This increase was made possible not only by the increase in the total area under cultivation, but also by the fact that hay and silage were replaced by barley. The

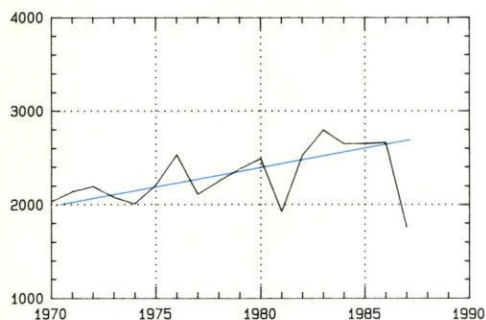


Figure 3. The total yield (without straw) in feed units per hectare in 1970—1987.

decrease in the area under hay and silage is probably an indication of decrease of dairy farming.

The reason why the increase occurred in the area under barley was the fact that the spring came exceptionally late. This was partly the reason for a slight decrease in the area under wheat, too. The area under rye increased to 37,000 hectares, but this is not yet enough to guarantee self-sufficiency.

The yields of all crops fell considerably, about 30—40 % (figure 3). The decrease of the yield of hay was the smallest, only 8 %, the yield per hectare being 3,720 kg, the same as in 1981. Instead, there was a considerable decrease in the yield of silage.

About 10 % of the total area under grain remained unharvested (12 % of barley, 9 % of oats and 6 % of wheat).

The crop was bad in the whole

Table 4. The harvested areas and yields of main crops in 1986 and 1987.

	1986			1987		
	Area 1000 ha	Yield 100 kg/ha	Yield total mill.kg	Area 1000 ha	Yield 100 kg/ha	Yield total mill.kg
Winter wheat	15.3	36.1	55.3	11.5	25.1	28.9
Spring wheat	150.5	31.5	473.8	127.6	19.8	252.2
Rye	26.6	26.6	70.6	37.7	19.7	74.2
Barley	589.4	29.1	1713.8	582.9	18.7	1089.2
Oats	403.2	29.1	1174.5	367.5	19.7	723.2
Potatoes	39.4	196.2	773.2	41.7	117.6	490.5
Sugar beet	29.1	272.3	792.2	30.0	155.4	466.2
Hay	387.4	40.4	1564.1	359.1	37.2	1337.1
Silage	231.7	214.2	4962.9	209.7	156.6	3283.8
Oil seeds	74.8	16.6	123.9	81.0	11.1	89.7
Other crops	40.6			38.4		
Total	1988.0	2663¹	5310²	1887.1	1758¹	3547²
Unharvested	13.0			127.5		
Pasture	156.6			148.3		
Fallow	103.7			118.1		
Soil bank	19.1			11.6		
Other land	111.4			118.7		
Total hectarage	2391.9			2411.3		

1) f.u./ha without straw, 2) mill. f.u. without straw.

country. South-eastern Finland was least affected, but even there the yield was clearly below the normal. On average, the yield per hectare (1,758 f.u./ha) was 34 % less than in the previous year. The total yield was 3,547 mill. f.u. (without straw), i.e. 33.2 % smaller than in 1986. Even if the crop failure was the main reason for the decrease in the value of production, part of the decrease could be regarded as normal variation compared to, for example, the normal or trend year 1986.

The quality of crop was very poor. kg/ha

Only 15 % of spring wheat and about 70 % of feed grain was satisfactory. About 80 % of rye can be considered satisfactory, but only half of winter wheat can be used as bread grain. The harvesting conditions of hay were quite good, and the quality of about 88 % was satisfactory. The yield of sugarbeet and oil plants was quite good in quality, however.

The yield of bread grain remained clearly below domestic consumption, which makes import of grain necessary (according to estimates 110 million kg kg/ha

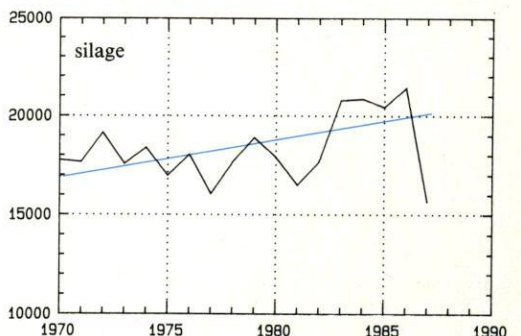
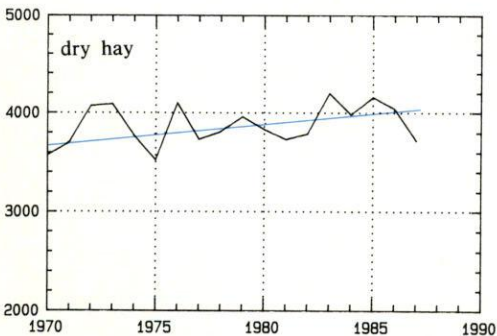
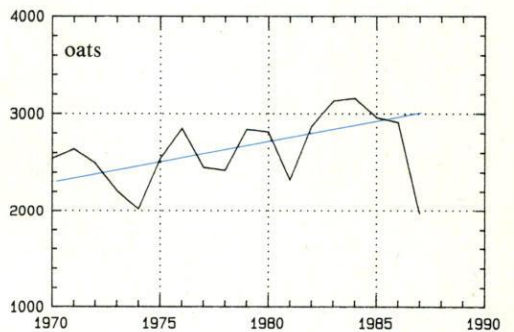
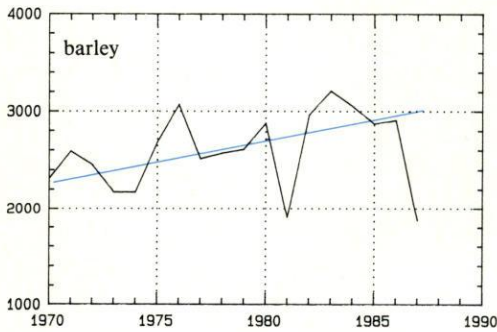
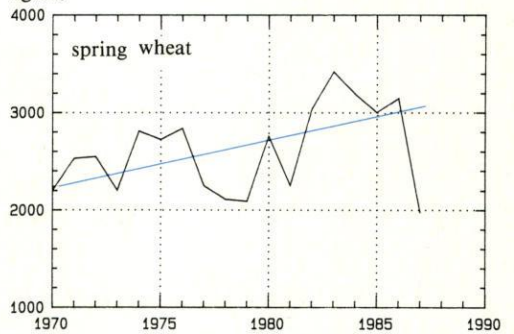
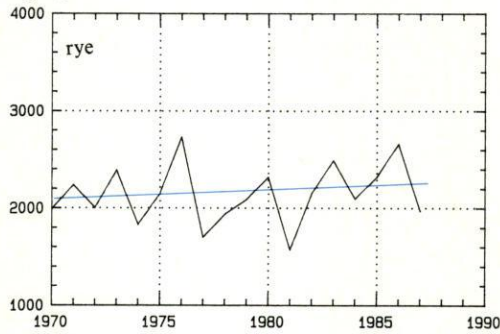


Figure 4. Yields of main crops in 1970–1987.

wheat and 30 million kg rye). The yield of feed grain was about one third less than in the previous year, but the domestic consumption can be covered almost completely by unloading the stores. There is a need for purchased feed on all farms, and the feed trade increased in the autumn.

Crop failure was really bad. The last bad year had been 1981, when the average crop level remained 20 % below the trend level. Now this figure was 30 %, and it seems that the quality of crop is much worse than in 1981. The crop level is already relatively high, which makes possible a bigger fall in the crop level than earlier. This is why it is difficult to make any comparisons with the situation in the past. One reason for crop failure is Finland's location so far in the north, but the possibility of crop failure is a risk that agriculture all over the world has to take into account. There is frost, drought, wetness, heavy rain, pests etc. all over the world, and the crop level may collapse almost anywhere.

2.3. Compensation for crop damages

Compensation for crop damages is prescribed by a law passed in 1975. The crop failure is estimated separately on each farm. If the average crop level of the farm is more than 20 % smaller than the average crop level of the whole area in the previous five years, the farm is entitled to compensation. These 20 % have to be covered by farmers themselves.

In the state budget FIM 30 million are reserved for compensating for crop damages. This amount is counted as agricultural income, and the actual compensations change the agricultural income by the same amount. When crop damages have been very big, part of the compensation has come directly from the state budget without being later refunded by agriculture. In 1981 the compensations amounted to FIM 426.8 million, of which FIM 45 million was included in the agricultural income.

In 1987 altogether about 75,000 farms

reported crop damages. According to the estimates made by authorities, these damages amounted to FIM 3.3 billion. When the 20 % that has to be covered by farmers themselves was taken into account, there were still 68,000 farms left, the amount to be compensated being FIM 1.88 billion. Because the whole country was affected by the crop failure it can be concluded that not all farms reported their crop damages or that their damages remained below the above mentioned 20 %. With the growth in the crop level the variation has grown, too. In the years 1982—1986 the yields were quite steady, but before that there had been considerable variation.

To ease the difficulties caused by the crop failure the state authorities took measures very quickly. To start with, a decision was made of a crop damage loan of FIM 1 billion, later raised to 1.5 billion. As a result of subsidies from the state the farmers pay only a 4.5 % interest and the term of payment is five years. During the first year the loan does not have to be amortized at all. In five years the cost to the state will be altogether FIM 200 million.

Furthermore, in the negotiations between the state and the agricultural producers it was agreed that altogether FIM 1,541 million will be used as a compensation for crop damages. Of this amount, FIM 1,320 million will be paid to farms, which means that farmers will receive a 70 % compensation for the damages exceeding the above mentioned 20 %.

The remaining FIM 221 million will be used as a compensation for the reductions in the price of feed used on the dairy farms in central, eastern and northern Finland. The compensation will be paid according to the number of animals and staggered according to the location of farms.

It was decided in the negotiations that in 1989 FIM 150 million and in 1990 FIM 160 million will be counted as agricultural income. Consequently, the compensation paid from the state funds is altogether FIM 1,231 million and the part paid back by agriculture in the price

settlements of 1989 and 1990 is FIM 310 million.

The financing of the part paid by the state is made easier by reductions in export subsidies and by levies from grain imports. Altogether these are expected to amount to about FIM 1,100 million.

The effects of the crop failure on the whole national economy are much smaller than on agriculture, because the value of overproduction (i.e. exports) has to be counted according to the world market prices which are much lower than domestic prices.

3. Animal production

In order to reduce exports all possible measures have been taken to restrict animal production. The crop failure had a similar effect. Consequently, production figures show mainly a downward trend.

Milk production decreased by about 4 % last year. In the first half of the year the decrease was only about 1 %, but by the end of the year the production began to fall more rapidly. In general, shortage of feed forced to reduce the number of cows and it also increased giving up the whole milk production. By the end of the year the number of cows was approximately 30,000 smaller than in the previous year.

In 1987, 2,691 million litres milk was delivered to dairies, i.e. 4 million litres below the production ceiling. Consequently, one important goal in the reduction of agricultural production has been reached. The fact that the production remained below the production ceiling

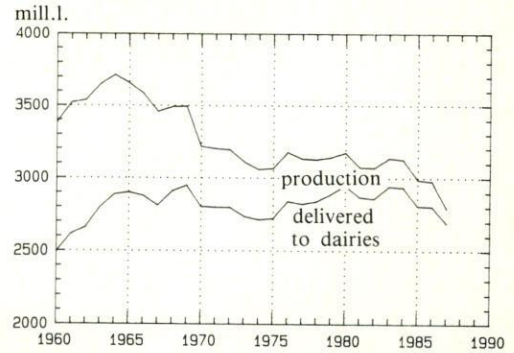


Figure 5. Milk production and the quantity of milk delivered to dairies in 1960—87.

means that farmers do not have to pay any export cost fees for milk (see Chapter 10). In 1988 milk production is expected to continue to fall.

Beef production decreased slightly despite the increase in dairy cow slaughtering because of the crop failure. Including veal the production was 124 million kg. Beef production is still dependent on the number of dairy cows, because there is very little actual beef cattle. Consequently, the production is expected to decrease by about 2 million kg in 1988. Thus the production is gradually decreasing, as has been forecast, and the market balance is improving.

Pork production increased by 3 million kg last year, and a slight increase seems to continue in 1988. In 1984 the production was restricted drastically through various restriction contracts. These contracts are now being annulled, which causes increase in production. Permits to increase the number of pigs were granted for about 1 million kg last year, which also increases production gradually.

Table 5. Animal husbandry in 1980—87.

	1980	1981	1982	1983	1984	1985	1986	1987 ^c	
Milk	mill.l	3174	3073	3068	3136	3124	2990	2970	2850
Dairy milk	„	2949	2868	2858	2943	2935	2805	2803	2691
Beef	mill.kg	114	122	117	118	124	126	124	124
Pork	„	169	180	181	177	171	173	173	175
Eggs	„	79	80	82	83	88	87	84	81
Poultry	„	15	17	17	18	20	21	22	27
Other meat	„	2	2	2	2	2	2	2	2

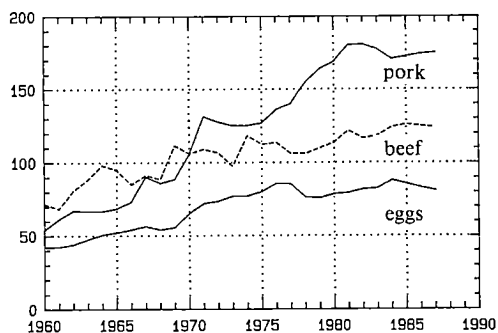


Figure 6. Production of beef, pork and eggs in 1960–87.

Pork production has been well under control, and the production ceiling has been exceeded very slightly, if at all. However, last year the situation got worse because of a stagnation in consumption.

Egg production decreased by 3 million kg last year. Restricting production, i.e. the dual price system (see section 10.3), which came into effect at the beginning of 1986, has started to be effective. In 1988 the production is expected to decrease by about 5 million kg, which means that the production ceiling would be exceeded by only 5–6 million kg. The dual price system makes it unprofitable to exceed the quota allocated to each farm. Because the establishment of new production units is prohibited and some old ones are closing down, the result will be a reduction in production.

Poultry production increased by about 4.5 million kg last year. In general, the increase in production has been steady and the markets have been in balance. The production is based on agreements through which the production can be controlled following the development of consumption. It is probably the shift in the increase of meat consumption from pork to poultry that has made the increase in poultry production possible.

Other meats produced in Finland are mutton, reindeer and horsemeat. Production of mutton has remained small in spite of all efforts to stimulate it. The influx of elk meat confuses the meat markets to some extent each year (about 7 million kg in 1987).

4. Consumption

In the last few years the real income of wage-earners has risen by about 3 % a year, which means a considerable increase in the potential of consumption. The income elasticity of the consumption of agricultural products, however, is small, so that economic factors do not cause any major fluctuation in consumption, but the changes remain relatively small. Consumption cannot increase in terms of energy, rather, it tends to decrease. Consequently, only the consumption structure can change, and a shift into animal products could increase agricultural production directed to consumption. But the consumption counselling seems to prefer an increase in the consumption of vegetables, and the consumption of fruits and vegetables has increased drastically in the last few years. The consumption of meat is still expected to grow, but the total consumption of dairy products will decrease. The consumption of grain and potatoes should remain about the same, but a decrease is also possible.

Concerning *dairy products* the first thing to be noted is that at the beginning of 1987 the new butter-vegetable oil mixes came to markets. Their fat content varies from 40 % to 60 %, and the fat content of butter and vegetable oil used for them varies, too. Their effect on the consumption of butter cannot yet be fully estimated. The consumption of butter was 9.8 kg/capita, which means that the consumption decreased by about 5 %. In 1988 the decrease is expected to continue. The consumption of margarine was 7.0 kg/cap, i.e. slightly less than in 1986.

The consumption of liquid dairy products decreased by about 1.5 % in 1987, but the consumption of cheese increased by 6 %. 1.5 million kg cheeses is imported to Finland each year, but it is difficult to judge whether they have replaced domestic cheeses or not. Imported cheeses are special cheeses, which may also increase interest in cheeses and thus contribute to an increase in domestic consumption. Foreign competition may

Table 6. Milk consumption per capita in 1975—87.

	Liquid milk litres	Butter kg	Cheese kg	Margarine kg
1975	282.4	12.9	6.4	8.5
1976	278.6	12.7	7.1	8.3
1977	273.4	12.2	6.6	8.0
1978	270.0	11.9	6.8	8.3
1979	266.9	12.5	6.9	7.9
1980	263.3	11.8	7.1	7.8
1981	255.3	12.4	7.9	7.5
1982	253.1	12.3	8.8	7.7
1983	243.8	11.9	8.8	7.1
1984	240.5	11.4	9.4	6.8
1985	235.8	12.2	9.8	7.1
1986	228.4	10.3	10.5	7.2
1987 ^c	224.7	9.8	11.1	7.0

Table 7. Consumption of meat and eggs in 1975—87, kg/capita.

	Beef	Pork	Poultry	Eggs
1975	24.2	26.7	2.4	10.9
1976	23.7	25.9	2.4	11.0
1977	22.7	27.3	2.7	10.9
1978	22.1	27.8	2.5	11.6
1979	23.4	28.9	2.9	11.6
1980	23.2	29.5	3.2	11.7
1981	22.4	29.3	3.5	10.7
1982	22.0	29.6	3.4	10.6
1983	21.1	30.9	3.8	10.6
1984	21.7	31.0	4.0	10.9
1985	21.3	32.0	4.2	11.1
1986	21.1	32.9	4.5	11.7
1987 ^e	21.1	32.9	5.1	11.9

be very useful for product development, too.

Pork consumption remained at the same level as in the previous year, although there was some potential for an increase of consumption as a result of e.g. the increase in real income. One explanation is that the increase in meat consumption has mainly occurred in *poultry consumption*, which grew 14 % last year. However, internationally poultry consumption is still small in Finland.

Beef consumption remained at the same level as earlier. It has been forecast to decrease because domestic production will fall due to a decline in the number of dairy cows.

Egg consumption began to grow in 1986 and this trend still continued in 1987. The increase in consumption is a result of strong marketing and a decrease in prices due to the introduction of the dual price system for eggs. Overproduction of eggs used to be the biggest of all agricultural products, but now the situation is improving very quickly.

5. Foreign trade

The foreign trade of agricultural products is almost completely regulated and its amount is determined by the amount of overproduction. Only highly processed food stuffs such as bakery products can be imported freely. For cheese we have agreed with the EEC on an import quota of 1.5 million kg, which has also been followed.

Even if agricultural overproduction is the most problematic aspect of agricultural policy, the value of agricultural imports is twice the value of exports. There is no need to import basic food stuffs. Imports consist of various items, coffee, fruits and tobacco being the most significant. Some protein feed is also imported because high quality protein cannot be produced in Finland. Part of the feed imports is used for fur animals.

Food processing industry imports farm products for raw materials. We export such products as tobacco and confectionary products.

The crop failure did not yet affect the export of animal products last year (Table 9). There was even an increase in the export of dairy products due to a decrease in consumption. The export of pork increased considerably from the previous year. Egg production has decreased, and, consequently, export of eggs has decreased by about 10 million kg, i.e. one third, in two years.

Instead, the crop failure has affected

the export of grain. At the beginning of the year altogether 280 million kg grain from the crop of 1986 was exported (250 million kg feed grain, 20 million kg wheat and 10 million kg malt barley). In addition, 25 million kg was exported as development aid. In the autumn there

was no grain to be exported, instead, 110 million kg wheat will have to be imported, and there will probably be a need to import feed grain, too, although no estimates had been made by the end of 1987.

Table 8. Exports and imports of agricultural products in 1975—87, FIM mill.

	Exports		Imports		
		Total	Coffee and tea	Fruits	Beverages and tobacco
1975	719.8	2472.3	368.5	341.4	184.9
1976	921.4	2332.4	692.3	366.0	155.7
1977	1303.3	2899.9	1012.9	404.1	166.0
1978	1127.3	3107.2	904.4	447.1	226.9
1979	1284.2	3679.9	932.7	533.9	226.7
1980	1669.9	4598.1	1097.1	638.0	255.6
1981	2639.4	4462.2	825.4	688.9	335.1
1982	2151.9	5308.9	990.5	710.6	286.0
1983	2673.4	4888.2	1065.7	752.2	332.7
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
1986 ^b	1837.5	4696.0	1150.0	658.2	334.8
1987 ^b	1639.8	4467.7	785.6	739.3	317.2

b) January-October

Table 9. Exports of some agricultural products in 1975—87, mill. kg.

	Butter	Cheese	Milk powder	Pork	Beef	Eggs	Grains
1975	11.9	19.9	20.1	2.1	1.6	28.1	
1976	21.2	28.6	22.0	12.1	2.4	34.4	367.5
1977	15.6	32.8	29.1	11.1	0.5	33.8	693.1
1978	14.9	36.1	27.4	22.2	0.8	22.2	148.4
1979	17.4	40.3	28.1	27.2	0.3	21.0	39.8
1980	9.8	40.3	30.1	25.9	0.9	25.8	—
1981	14.7	36.8	28.0	40.6	16.0	27.5	—
1982	8.8	33.3	22.6	34.4	8.5	30.1	—
1983	26.6	32.3	39.1	26.6	16.7	32.2	20.0
1984	20.0	37.0	41.6	20.8	19.2	35.4	781.1
1985	18.6	37.0	40.1	17.8	21.5	32.9	596.4
1986	14.9	34.5	33.9	10.2	21.3	25.1	650
1987 ^c	18.0	38.0	36.0	17.8	18.6	22.5	280

6. Agricultural incomes settlement

Agricultural producer prices are set twice a year in connection with farm incomes negotiations. These negotiations are based on the Farm Incomes Act, which defines the general rules for the price setting. According to the law, the negotiations are held between the State and the producers' organizations.

There are two phases in the negotiations. In the *first phase* farmers are compensated for the increases in costs caused by higher input prices. In order to determine the size of this compensation, the agricultural price council prepares a total calculation of the returns and expenditure in agriculture based on the average quantities of the last three calendar years. The prices used are those of the last settlement and those current at the moment of price setting.

The law states that farmers shall be fully compensated for this increase by a rise in the target prices, thus ensuring that their additional returns correspond exactly to the increase in costs.

The quantities used in the *income calculation* are the averages of the quantities of the preceding three calendar years, and the prices those of January and July (with some exceptions). Thus, although the calculation made by the price council does not represent any year in particular, it is suitable for following the average trend in farm incomes, as annual fluctuations are smoothed out.

Target prices are settled for milk, pork, beef, mutton, eggs, rye, wheat, feed barley and feed oats (see Appendix 7). Producer prices for other products may fluctuate freely, but changes in the prices are taken into account in the total calculation. Target prices should be fully realized. In connection with the spring settlement a calculation is made showing deviations in producer prices from the target prices; shortfalls are credited or excesses subtracted. The following year this correction is returned (in reverse of course) to the prices. The procedure means that, in the long run, farmers

receive exactly the prices settled. Retroactive accounts at the end of the year are also included in the price settlement. Thus, it is not possible for farmers to receive additional income in that way.

In the *second phase* of the negotiations the farm income is raised. The farm income is the compensation a farmer gets for his own work and capital (interest on debts is included in the income calculation). In earlier legislation the increase in farm income was linked to trends in general earnings or in the income of rural employees. The farm income is no longer linked to any particular indicator, but negotiators can freely decide upon a suitable increase. In practice, the general labour market settlements are still followed in such a way that agriculture is considered a kind of low wage sector, and the increase in income has been determined in the same way as in other sectors of the economy. The decision is usually based on a calculated hourly wage. The overall increase in farm income is then determined for all branches of agriculture by taking into account the total labour input into the sector. Since the settlement is always an outcome of negotiations it cannot be described later by any particular formula.

6.1. Spring price settlement

Two-year agreements on wages and salaries have usually been made in Finland in recent years. An agreement on a raise of agricultural income by FIM 269.0 million in 1987 was included in the two-year agricultural incomes settlement made in spring 1986. Consequently, there was no need for further negotiations on this issue; all that remained to be done was to note the change of costs and the division of the final need for raises to different products. The negotiations proceeded very quickly and without major problems.

The rise of costs from the autumn price settlement (i.e. from the level in July) is calculated in the spring price settlement. This time the income calcula-

tion was made from the level of January 1986 to the level of January 1987, because in autumn 1986 the change in costs was so small, that no adjustments were made in target prices.

The main points of the spring price settlement are presented in Table 10. In the first place, the rise in the return from the non-target price products like potatoes, sugar beet, oil plants, poultry and malt barley is presented. In addition, there are the changes in retroactive

payments, rent incomes and support, altogether FIM 88.7 million.

The most important part of the calculation are the changes of costs as a result of changes in the prices of production inputs. When it comes to agriculture there is no inflation, because the income calculation showed that the costs had decreased by 1.1 %. This was mainly caused by the fall in the prices of fertilizers by 8.7 % and the decrease of interests by 9.4 %. In the whole national

Table 10. Income and cost calculation for the spring decision 1987.

	Price level in spring 1986 FIM mill.	Price level in spring 1987 FIM mill.	Change %
Gross return			
Target price products	16 616.4	16 616.4	
Other products	2 126.0	2 206.9	3.8
Rent incomes	615.6	613.4	-0.4
Retroactive payments	583.7	596.7	2.2
Price support	2 071.0	2 068.0	-0.1
Total	22 012.7	22 101.4	0.4
Excess over target prices in 1985, repayment	116.7		
Total return	22 129.4	22 101.4	
Costs			
Fertilizers	1 594.1	1 454.9	-8.7
Purchased feed	2 845.3	2 959.8	4.0
Wages	429.2	444.9	3.7
Machinery and implements	3 633.4	3 760.6	3.5
Buildings	1 435.0	1 469.4	2.4
Interest payments	1 181.2	1 069.6	-9.4
General	1 196.8	1 157.3	-3.3
Rent	570.2	564.7	-1.0
Miscellaneous	2 363.8	2 129.6	-7.2
Total	15 249.0	15 073.8	-1.1
Farm income	6 880.4	7 027.6	2.1
Change in farm income		147.2	
Summary:			
Change in base level		mill. mk	
Excess over target prices in 1986		-147.2	
Total calculation		-49.8	
		-197.0	

economy the interest level was lowered twice in 1986, which had as an effect a decrease in the interest costs of agriculture. The reason for the fall in the prices of fertilizers was the decrease in the world market price of oil. The fall in fuel and lubricant prices was about 30 % (about FIM 200 million), which explains the decrease of other costs by 7.2 % (see table 10). The inflation of the whole national economy was slightly above 3 %, so that agriculture formed clearly an exception. The prices of e.g. purchased feed, and the machinery, equipment and building costs increased slightly.

The income calculation includes the excess over target prices twice. According to the law the target prices have to be fully realized. If this is not the case, the deviation will be corrected in the price settlement of the following year. For example, in 1986 the target prices were exceeded by FIM 49.8 million, according to the calculation, and, consequently, in 1987 the target price level was lowered by this amount. In 1988 spring price settlement this amount will be returned to the target price level. In 1985 the target prices had been exceeded by FIM 116.7 million, which was deducted from the target prices in 1986 but included again in 1987.

The total of the income calculation showed that the target price level had to

be lowered by altogether FIM 197 million. In the two-year settlement of spring 1986 it had been agreed that the agricultural income would be raised by FIM 269 million. It was also agreed that if the final wage level of agreements were higher than the level applied in the negotiations, this would be taken into account in the spring settlement in 1987. This guarantee for income development was FIM 34.5 million. Consequently, the total settlement amounted to FIM 106.5 million, which is 0.6 % below the target price level.

Income calculation	-197.0
Farm income increase	269.0
Income development adjustment	34.5
<hr/>	
Need for raise, total	106.5

The raise was divided between the target prices (FIM 98.4 million) and regional support (FIM 8.1 million). The biggest part of the raise went to the target price of milk, which rose by 1.1 % (Table 11). The target price of mutton was lowered, because the final producer price has constantly remained clearly below the target price.

Figures 7 and 8 and Appendix 7 show that the development of target prices has become steady in the last few years. Thus agriculture does not cause inflation, but, on the contrary, seems to slow it down.

Table 11. Target prices 1985-87¹.

		1.3.85	1.4.86	1.3.87	Change %
Rye	mk/kg	2.64	2.70	2.70	
Wheat	"	2.31	2.33	2.33	
Feed barley	"	1.70	1.70	1.70	
Feed oats	"	1.58	1.58	1.58	
Milk	p/l	2.286 ²	2.32	2.345	1.1
Beef	mk/kg	24.67	24.97	25.10	0.5
Pork	"	16.05	16.25	16.30	0.3
Eggs	"	10.50	8.80 ³	8.80	
Mutton	"	26.15	25.15	24.65	-2.0

¹ Also see appendix 5.

² The subsidy on milk was reduced by 1.5 p/l from Sept. 1, 1985, when the target price was raised correspondingly by 1.5 p/l.

³ The target price of eggs was reduced by 1.50 mk/kg from Jan. 1, 1986, when the dual-price system for eggs was adopted (see section 12.4.).

The target price of eggs was reduced by 1.5 FIM/kg at the beginning of 1986 when the dual-price system for eggs was adopted. The difference comes as an additional price through the state budget.

6.2. Autumn price settlement

In the autumn price settlement the change in costs due to the changes in the prices of production inputs is settled and target prices are corrected by the corresponding amount. Usually this has meant compensating the raise of costs to farmers, but in 1986 we were close to a situation in which target prices should have been lowered as a result of a decrease in the prices of production inputs. So, corrections in both directions are possible. The autumn price settlement does not include all issues of the spring price settlement. Incomes are not negotiated at all and the change in capital costs

are accounted for only once a year, in the spring price settlement.

From January 1987 till July 1987 the rise of costs was only 0.8 %. The price of purchased feed had gone up by 3.8 % but the prices of fertilizers had decreased by 5.7 %. The changes in other costs were relatively small. Altogether the rise of costs amounted to FIM 115.7 million. Retroactive payments, which are taken into account only in the autumn price settlement, were FIM 51.2 million higher in 1986 than in the previous year. This amount had to be deducted from the increase in costs. The total compensation to agriculture would have been FIM 64.5 million.

Concerning the autumn price settlement it is prescribed by law, that the change in target prices is realized only if the change in target prices and price policy support is more than 2 %. This was not the case, and, consequently, target prices were not changed at all. The income calculation for the spring price settlement 1988 will be made from January 1987 till January 1988.

6.3. Producer prices

The target prices (see Appendix 7) do not give a fully accurate picture of the

Table 12. The producer prices paid for the most important agricultural products, including all subsidies, in 1975—1987.

Year	Milk p/l	Beef mk/kg	Pork mk/kg	Eggs mk/kg
1975	115.0	11.15	7.60	5.25
1976	137.1	11.50	7.90	5.53
1977	144.8	14.27	8.75	5.40
1978	155.3	14.66	9.07	5.78
1979	167.8	15.54	9.42	6.42
1980	184.2	17.69	10.13	7.35
1981	203.1	19.59	11.42	8.48
1982	229.6	22.22	12.68	9.31
1983	248.2	24.01	13.68	9.99
1984	261.7	25.84	14.98	10.30
1985	273.9	27.62	16.17	10.73
1986	276.4	28.28	16.50	10.67
1987e	280.3	28.78	16.49	10.60

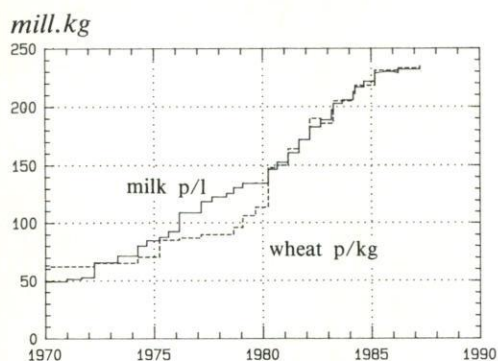


Figure 7. Target prices of milk and wheat in 1971—87.

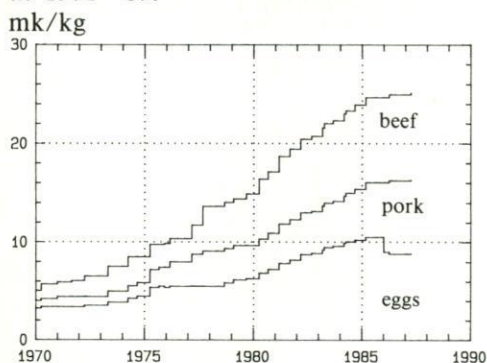


Figure 8. Target prices of beef, pork and eggs in 1971—87.

amount farmers receive for their products, with all price subsidies included. The average production subsidy on milk in 1986, for instance, was FIM 0.19/litre and other price policy support FIM 0.09/l. The amount paid for milk was, therefore, FIM 2.76/l.

The producer prices, including all subsidies, of the main products in 1975—87 are presented in Table 12. Export fees and milk quota payments have been subtracted from them. Exact figures for 1987 are not yet available.

6.4. Retail prices

Table 13 gives retail prices of some food items. The comparison between producer and retail prices is complicated, because the product in consumption is not the same which was produced on a farm. Fat is subtracted from original milk to make consumer milk, meat is only one part of the whole carcass, bread grain has gone through mills, etc. In some cases, however, the comparison is easier. Potatoes and eggs do not change in the market chain.

Table 13. Retail prices in June 1987.

Product	FIM/kg
Milk (FIM/l)	3.40
Butter	38.22
Emmenthal-cheese	38.88
Beef (ground)	42.53
Pork (flank)	29.41
Eggs	15.15
Wheat flour	7.10
Sugar (lump)	8.32
Potatoes	4.26

Source: *Bulletin of Statistics*.

7. Income trends in agriculture

7.1. Income disparities

The study on farmers' income level and its comparison to other sectors of econ-

omy has been continued in the Agricultural Economics Research Institute. Figures are now available for 1985.

According to this study, based upon tyax statistics, farm families received 58 % of their income from agriculture in 1985 (Table 14). This calculation included 131,950 farms. There was 14.3 ha arable land and 36.3 ha forest on these farms on average. As far as agricultural income is concerned, tax statistics are completed with other statistics.

In the aforementioned study the classification of farms is made in many different ways. One main classification method is based on distribution of taxable net incomes. A farmer is considered a full-time farmer, if his income from agriculture and forestry is at least 75 % of all income. About 49,360 farms belonged to this category in 1986 and they had on average 19.6 ha arable land. The farm income was FIM 45,814 per person on those farms whereas an industrial worker received at the same time FIM 66,200 as wages.

7.2. Income in 1987

It is still difficult to make any reliable statistical estimates about the income trends of farmers in 1987. All the information on quantities and prices needed for this purpose is still preliminary. If this information is used to calculate returns and costs, an error may accumulate in the part referring to farm income.

Table 14. Distribution of income of farming families according to source of income 1985.

	Income FIM/farm	%
Agriculture	48 987	58.0
Forestry	8 968	10.8
Wages	21 860	25.9
Other	4 625	5.5
Total	84 440	100.0

Nevertheless, in the following a preliminary rough estimate of trends in farm income according to the overall calculation of the institute is given. Two figures for 1985 are given in the table 15 due to the revision of the total calculation. The input prices for fertilizers and feed were earlier list prices. In fact, farmers have got a sizeable discount of these prices, which have now been taken into account in the calculation.

According to a preliminary estimate, farm income fell 21 % last year. The gross return fell by FIM 1,100 million which was primarily caused by the decrease of FIM 620 million in the value of grain production. Milk production decreased by over 100 million litres which contributed to the decrease in gross return by FIM 221 million. The value of the animal production remained, however, at the level of the previous year.

Egg production fell but pork production rose correspondingly. The producer price level rose by 1.6 % and did not much affect the gross return.

The increase of costs was FIM 494 million, i.e. 3.2 %. The price index rose only by 0.9 %. The most notable was the increase in purchased feed (FIM 330 million) which occurred in the fall. Prices of feed rose by 4.2 %. On the other hand, the fertilizer cost decreased by FIM 269 million due to the fall in prices by 13 %.

The decrease in farm income was quite big. It will be partly compensated by the crop damage payments which will be paid in 1988. The damage will be seen also in the first part of 1988 when farmers have to buy more feed than normally. Sales of grains from farm stores will also be small in the spring 1988.

Table 15. Trends in farm incomes in 1975—87, FIM mill. and as an index.

	Gross return	Total costs	Farm income	Index
1975	8 099.4	4 978.0	3 121.4	100.0
1976	9 727.1	5 763.8	3 508.3	112.4
1977	9 977.2	6 234.7	3 742.5	119.9
1978	10 246.2	7 199.0	3 047.2	97.6
1979	11 147.4	8 166.6	2 980.8	95.5
1980	13 598.1	10 173.7	3 424.4	109.7
1981	15 205.9	11 737.6	3 468.3	111.1
1982	18 119.7	13 675.9	4 443.8	142.4
1983	20 426.2	14 343.1	6 083.1	194.9
1984	21 623.2	15 186.6	6 436.6	206.2
1985	22 496.1	16 121.0	6 375.1	204.2
1985 ¹	22 490.7	15 521.2	6 969.5	100.0
1986	23 223.2	15 648.0	7 575.2	108.7
1987e	22 121.6	16 142.3	5 979.3	85.8

¹New procedure for cost calculation.

Source: Agr. Econ. Res. Inst.

III

AGRICULTURAL POLICY

8. General

Because of the crop failure, the discussions on agricultural policy in 1987 were clearly divided between two major issues. At the beginning of the year the proposals connected with the work and report of the Agriculture 2000 -committee in general and, in particular, measures aiming at restrictions on production were on the foreground. For many years agriculture had been developing at a quite steady pace, but the future was threatened by the continuous discussions on overproduction and restrictions on production. A new government was appointed in spring 1987, and the new minister of agriculture does not belong to the Central Party, which traditionally is the closest to agriculture and regarded as its best advocate. Naturally this aroused many doubts within agriculture. No major changes are to be expected in agricultural policy, however.

The application of measures to restrict production seemed to increase during the year, which is also noted in the report of the Agriculture 2000 -committee (see below chapter 9). The growing difficulties in the export of agricultural products has a similar effect. In addition, problems are caused by the GATT-negotiations, in which requirements for liberalization of trade have been raised. For Finland this would mean reducing exports and possibly loosening the restrictions on imports.

Several measures to restrict production are being applied (see chapter 10). The most notable new measure is the act concerning restrictions on land clearing.

Already in 1986 legislation to prohibit land clearing was introduced, but it was postponed until after the elections and the bill was not passed in the new parliament. Instead, a new bill was presented to the parliament immediately after the new government had been appointed. The bill was passed quickly and it came into force at the beginning of July 1987. According to the act, a fee of FIM 30,000 per hectare has to be paid for land clearing. This is considered as sufficient to prevent the clearing of new fields.

The act was urgent, because land clearing was increasing rapidly as long as it still was possible. The cleared area was 46,600 hectares, i.e. by about 2 % of the total arable land, and overproduction will naturally increase by the same amount. Agriculture has to pay for this, because the production ceilings of all products have usually been exceeded. In fact, milk production is at the moment below the production ceiling, but this is partly due to the crop failure. The postponement of the law on restricting land clearing caused a great deal of damage, which will be hard to mend and which causes unnecessary costs.

The crop failure caused a total change in the discussion on agricultural policy. The possibility of a crop failure started to become noticeable already in August, and during September and October the disaster became evident. The authorities started to figure out the extension of the crop failure and to consider measures to compensate for the economic losses of the most affected and to improve their liquidity.

There has also been some positive

development within agriculture. The support of small-scale industrial activities in the countryside (see chapter 12) has been well received. Various kinds of working opportunities are being created, which support the agricultural industry and the maintaining of rural population.

On the whole, however, 1987 was quite a depressing year for agriculture. Once again agricultural producers felt themselves cornered. The appreciation of agriculture seems to be decreasing again. Finally, the crop failure caused great financial difficulties to many farmers.

9. The report of the Agriculture 2000 -committee

In June 1985 the Parliament appointed a committee to prepare a long-term programme for agricultural policy. The committee completed its task in June 1987, half a year later than had been planned. The postponement hardly had any significance, because the programme is intended to extend as far as the end of this century, although the committee has not set any time limits in its proposals. When the committee was appointed, the aim was to formulate a programme unanimously approved of by all interest groups. This was not achieved, however, but there are different views concerning the report. The report is mainly formulated by the chairman of the committee Toivo Yläjärvi, the minister of agriculture at that time, and its authority members.

The report covers the field of agricultural policy almost completely. The most important areas are production policy as well as price and income policy, but some other issues are also dealt with.

In production policy the committee presented the view that production should be accommodated to meet domestic consumption. Because of seasonal variation some overproduction of animal products, milk in particular, has to be

allowed. According to a proposal of the committee, overproduction will be used as exports of processed food stuffs, as raw material for domestic industries for world market prices, or as food aid.

Reducing production is problematic for agriculture. The committee does not present any detailed proposals for measures to achieve the aim. Removing land out of production seems to be the best solution. The committee has calculated that by the end of the century there will be 500,000 - 750,000 hectares extra field, depending on the self-sufficiency goal. The fact that the excess is so big is caused by an increase in the crop level by 1 % a year, by an overall increase in productivity and by lowering of the self-sufficiency level.

According to the committee, the reduction of the area under cultivation will be realized by afforesting annually 10,000 hectares of field and by fallowing at least 200,000 hectares, later even more. Mandatory fallowing was meant to come into force already in 1988, but because of the crop failure it was postponed at least until 1989. So far no concrete proposals have been made about how mandatory fallowing will be realized.

Cutting overproduction will reduce employment in the country-side, but on the other hand it will also reduce the state's export support costs considerably. The committee proposes that the money thus saved should be spent on developing agriculture, side-line industries and services in the countryside, creating jobs, maintaining the population and improving the living conditions of farmers and other rural population. This is a very sensible and well based proposition.

Furthermore, it is suggested in the report that agricultural production should be based on use of production technology that is both sustainable with regard to the environment and economically profitable. These aims are no doubt very desirable, but it may be hard to make them match to each other.

According to the report, production policy should be accommodated to the

aims of income policy and structural policy. No detailed propositions about how this should be realized are made, however. Structural policy, which is one of the most problematic aspects of agricultural policy, is left with very little attention in the report.

In addition to reduction of production, incomes acts are the most important means of agricultural policy. According to the committee, the basis for the future incomes acts will be the same as at present. This is a very significant viewpoint. It may be interpreted as a view according to which an increase in production costs will be fully compensated to agriculture and the agricultural income will be negotiated separately. Thus the real producer prices might remain at the present level. Production ceilings will probably be lowered, but in any case the income level may still develop quite reasonably, especially if restricting production would be realized in a way that would cause whole farms to quit production, and, as a result, the remaining farms would not have to reduce their production.

The programme presented by the committee forms a basis; the more detailed application of the programme has to be realized through legislature. It would not be sensible to formulate very detailed long-term policy, because it is impossible to forecast the development of agriculture well enough to plan a programme for more than 10 years. There is a risk, however, that the committee report will be forgotten when new laws are made. We are not accustomed to presenting such a programme as a whole to the

Parliament, which would give the government binding guidelines to be followed in their short-term policy.

10. Regulation of supply

In the following, the regulation of supply means directing, restricting and supporting production. During the past few years the focus has been on restricting production. Production has clearly exceeded domestic consumption as well as the production and export ceilings set for agriculture. A considerable amount has been collected from agriculture in export cost charges, which has lowered the income level of farmers by 5–7 %.

It might be possible to direct production through price settlements made in the negotiations on agricultural income. In practice they have had very little effect, since price relations are hard to change because of the internal pressures within agriculture. Consequently, the development of production has mainly been directed through restrictions on production.

Production targets are mainly determined by the production ceilings set in the Farm Incomes Acts. They consist of the production ceiling for dairy milk and the export ceilings for meat, eggs and grain (see Table 16.). Agriculture has to export the excess for the world market prices, which are usually very low. Thus it would be profitable for agriculture to accommodate its production to the production ceilings.

Table 16. Production ceiling for dairy milk (mill. litres) and export ceilings for other products (mill. kg) in 1983–89.

	1983	1984	1985	1986	1987	1988	1989
Dairy milk	2790	2760	2730	2710	2695	2660	2625
Pork	18	16	14	14	13	12	11
Beef	14	12	12	12	12	10	9
Eggs	17	15	13	12	11	10	9
Wheat						125	125
Feed grain				480	480	510	510

Table 17. Excess surpluses over export ceilings and the proportion of export costs borne by agriculture in 1982—87.

		1982	1983	1984	1985	1986	1987 ^c
Dairy milk,	mill.l.	183	153	175	78	93	—4
Pork	mill.kg	21.4	8.6	4.8	3.4	—3.8	4.8
Beef,	"	—	2.7	7.2	8.9	8.3	6.6
Eggs,	"	18.1	15.2	20.4	20.1	12.5	11.5
Bread grain,	"	—	—	—	—	—	—
Feed grein,	"	—	—	—	—	169.9	—
Export costs	mill. mk	206	380	452	482	602	298

The Farm Incomes Act determines directly a production ceiling for milk, whereas for the other products domestic consumption and export ceilings together constitute a production ceiling, up to which level farmers receive a full producer price. It would be profitable for agriculture if domestic consumption of grain, meat and eggs were as high as possible. This does not apply to milk, because only the state would benefit from an increase in milk consumption. In fact, setting a production ceiling for milk is profitable for agriculture, as the total consumption of milk tends to decrease all the time. Consequently, the state's proportion of milk export costs may increase, whereas its responsibility for other products is completely determined by export ceilings.

As Table 17 shows, the production ceilings for milk, beef and eggs have usually been exceeded. Last year the ceilings were exceeded only slightly, however, and the production ceiling for milk was not exceeded at all. The export of grain stopped completely at the end of the year, which means that there was no excess in grain, either. The export of beef was proportionally the largest, and this was also the biggest financial burden to farmers.

Table 17 also gives an estimate of the proportion of export costs for which agriculture is responsible. In 1987 this was FIM 298 million, i.e. only about a half of what it was in the previous year.

The most important measures in restricting production are the *dual price systems for milk and eggs*. The former

came into effect in 1985, the latter in 1986. They will be dealt with later in more detail.

In addition to these there are various *voluntary systems*, for which an act was passed in 1983 (the Act on the regulation and balancing of agricultural production). On the basis of this the government makes its annual decisions on measures to restrict production. These measures, formulated during several years, are:

- contracts to reduce agricultural production
- " " animal production
- " " milk production
- " " pork production
- " " egg production
- following contracts
- beef production contracts
- pea production contracts
- contracts on afforestation of arable land

In 1987 new contracts to reduce agricultural production and egg production, following contracts as well as pea production contracts were made, and afforestation of arable land was made more effective. In addition to these, earlier restrictive contracts concerning the whole agricultural production or only animal production were still in force.

Apart from the aforementioned acts and contracts, the Act on the *soil bank system* as well as the Act on *regulation of the establishment of large production units* were still in force.

Export cost charges, which are collected to finance the export of over-

production, and the *tax on fertilizers and feed concentrates* have, in addition to covering the marketing responsibility, a restricting effect on production, too.

Also the aforementioned (see chapter 8) act on *restricting land clearing*, which should stop land clearing almost completely, aims at restricting production. Another restrictive means to be mentioned here are the measures concerning farmers' pensions. These aim at making farmers willing to retire earlier by improving the pensions and by excluding retired farmers from those entitled to hectarage subsidies and to the additional price of milk at the beginning of 1988.

These measures are briefly reviewed below.

10.1. Restrictions on production

Contracts to reduce agricultural production have been made since 1977. In 1987 about 720 new contracts were made. First, with elderly farmers five-year contracts were made, according to which they agree to give up agricultural production completely (510 contracts). And secondly, ten-year contracts aiming at directing farms to forestry were made with farmers younger than 55 years of age. Also in the second case the farmers have to give up all agricultural production for the whole period the contract is in force.

Through these contracts altogether about 32,000 hectares of field and about 18,000 cows with an annual production of about 85 million litres milk remained out of production in 1987. In all contracts the compensation to the farmers amounts to 20—35 % of their previous income.

A farm engaged in forestry receives a compensation tied to the income for the first five years, and for the second five only a so called basic compensation, which is FIM 7,000 a year. When the contract was made, the farm had to have a minimum wood production of 150 m³ a year. On these farms the afforestation of arable land was supported by doubling

the reward, which now was 10—15 times higher per hectare than in the earlier afforestation contracts, depending on the location (FIM 8,400—12,300/hectare). By the end of the year 200 farms applied for this production shift.

In general, it is hoped that the *afforestation of arable land* would increase. To achieve this, the terms of afforestation were improved by raising the reward level considerably. Last year 2,400 hectares of arable land was afforested, of which about 8 % was on farms shifting to forestry.

Contracts to decrease animal production are more limited than the aforementioned contracts, which concern the whole production. These contracts were made in 1984. To join the system a farmer had to give up all animals causing overproduction for five years. In compensation he received 20—35 % of his previous income. 1,380 contracts of this kind were made in 1984. In 1980—82 similar contracts were made, and the last ones extended until 1987. In 1987 the effect of these contracts on production was about 3 million kg pork, 1.3 million kg eggs and 50 million litres milk.

Last *contracts to decrease milk production* were made in 1984. The term of the contract was that milk production has to be reduced by at least 15 % (or 5,000 litres) a year. Contracts were made for three years and the compensation was 75—90 pennies per litre. Last contracts ended in 1987. Further contract will again be made in 1988.

Contracts to decrease pork production were made in 1983 with large production units that had paid marketing fees and with pig producers. The compensations were proportional to earlier incomes. About 7.6 million kg pork was covered by these contracts, which were made for four-years and ended in autumn 1987.

Contracts to decrease egg production, made in 1984, covered about 300,000 hens in 1987. Their effect on production is almost 5 million kg a year. The contracts were made for four years, and farmers committed themselves to stopping production completely. These contracts end in 1988.

In 1987 five-year contracts to decrease egg production were made. The compensation was FIM 70 per hen up to 1,000 hens and FIM 60 per hen for more. If the producer committed himself to giving up production completely the compensation was FIM 30 per hen higher. Thus the

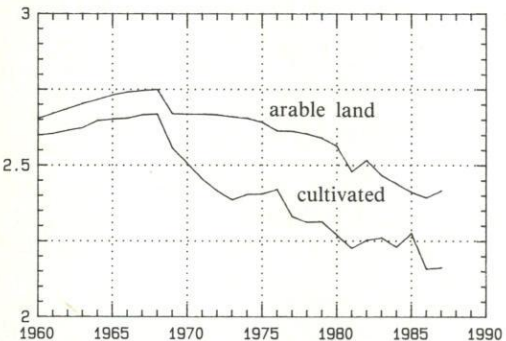


Figure 9. Arable land and the area under cultivation in 1960—1987.

state can buy production quotas from producers. At the end of the year contracts were also made with large production units, which had to cut their production by at least 1,000 hens. In 1987 these contracts covered about 6 million kg eggs.

Together with the contracts to decrease animal production, the measures to reduce egg production are estimated to decrease production by about 12 million kg a year.

Egg production is also reduced by restricting hatchings. For this purpose, general instructions on the number of hatchings have been issued. In 1987 hatchings were allowed to remain at the same level as in the previous year. During the past few years, expanding hatcheries and setting up new ones have been prohibited.

Fallowing contracts were again made in 1987. The contracts were made for one

Table 18. Summary of the effects of restrictions on production in 1987 (on average in the whole year).

	Contracts	Field area 1000 ha	Cows 1000 kpl	Hens 1000 kpl	Pigs 1000 kpl
Soil bank	2 500	11.6			
Decreasing production	3 600	32.0	18.0	31.0	7.5
Milk bonus ¹	2 500		12.0		
Decreasing animal production	2 500		9.5	94.0	30.0
Pig bonus ^{1, 2}	250				20.0
Beef production contracts	650		(5.4) ³		
Decreasing egg production	1 200			740.0	
Pea production contracts	79				
Fallowing	9 025	68.6			
Total	22 300	112.2	39.5	865.0	75.5
Corresponding production		grain mill.kg	milk mill.l	eggs mill.kg	pork mill.kg
		280	195	13	10

¹ Contracts annulled by the end of the year.

² plus 8 000 sows.

³ plus 4 900 beef cows, which produce about 1 mill.kg beef a year.

Source: The National Board of Agriculture.

year and the area to be fallowed had to be at least one fourth (and 4 hectares) of the total arable land of the farm. The compensation was FIM 1,400—2,050 per hectare depending on the location, if the fallowed area was more than 75 % of the total area of the farm, and if this was not the case the compensation was FIM 200—300 lower per hectare. The contracts made in 1987 covered about 68,600 hectares arable land. In summer 1987 the total fallowed area was 118,100 hectares.

The soil bank system was launched in 1969. At the peak in 1973, 205,000 hectares remained out of production. Last June the system covered only 11,600 hectares. The maximum compensation was FIM 380/ha; this has not changed since 1981. The remaining area does not presumably have any potential use for production. In recent years uncultivated areas have also increased outside the soil bank system, probably as a result of annulled contracts of the system, which will be abolished in 1989.

Regulation of the establishment of large production units was continued in 1987. A permit from the National Board of Agriculture is required for the establishment of a production unit, which is to accommodate more than 200 pigs, 1,000 hens, 30,000 chickens or 60 beef animals. In addition, a permit from the local authorities is required for the establishment of a production unit for 25 pigs, 100 hens or chickens (or other poultry), or 30 beef animals. In 1987 permits were granted on condition that self-sufficiency in feed were 3/4 for larger farms, which apply for the permit from the Board of Agriculture, 2/3 for smaller farms and 1/5 for chicken production. These restrictions do not apply to milk production, because the establishment of dairy farms is regulated by the quota system.

Very few permits were granted in 1987. Establishment and expanding permits were granted for 30,000 pig places. Permits were granted to young farmers in case of a change in the ownership of the farm and to farms that changed their production line. Poultry production units could be established or expanded only in some exceptional cases, and beef produc-

tion units only in the northern and eastern parts of the country. A condition for getting the permit was a change in the ownership of the farm, and even then production could not be expanded.

So, there is a whole lot of measures aiming at restricting production. As table 18 shows, they have also been effective. The state granted FIM 412 million for these measures in 1987.

Already in August 1986 the authorities started to deal with the overproduction with pension systems, too. The pension system in case of giving up production was improved by requiring the farmers only to leave their land uncultivated for six years. Earlier this pension system required that the farmers had to sell or afforest their land. By the end of the year this system covered about 50,000 hectares arable land.

10.2. Dual price system for milk

The dual price system for milk came into effect at the beginning of 1985. Each farm was levied a quota on milk production according to the level of production in either 1981/82 or 1982/83 (whichever was higher). All farms that produced milk at the beginning of 1985 could, however, produce up to 30,000 litres a year without a permit. It is not possible to buy or sell quotas.

In some cases the quotas remained too small, because the expansion of a farm has not yet been completed or production was below the normal for some other reason. At the beginning of the system it was possible to apply for a change in the quotas, but very big changes were not granted. Additional quotas were granted for 55 million litres in 1985, for 25 million litres in 1986 and for 1 million litres in 1987 to correct the most unfair quotas.

In 1985 about 7,400 farms exceeded their quotas, and the farmers had to pay a marketing fee of FIM 1.60/litre for the

excess. In 1986 exceedings decreased slightly (about 7,100 farms) as farmers were able to plan their production better. No estimates are available for the exceedings of quotas in 1987. It is likely that some farms have exceeded their quotas, although the excesses should remain fairly small due to the crop failure.

In 1986 the marketing fee was FIM 2.00/litre, but it was raised to FIM 2.05/litre at the beginning of 1987. The average producer price of milk being FIM 2.73/litre, farmers get only FIM 0.68/litre for the part exceeding their quota.

The amount of milk delivered to dairies decreased by about 112 million litres in 1987. This was mainly a result of the crop failure, however. For the time being, it is difficult to make final judgement as to the degree to which quotas have helped to curtail milk production. Naturally, they have prevented production increases on some farms, and since some farms have evidently had to cut production, the result is a reduction in the overall production.

At the beginning of 1988 a quota system for dairies came into force. A dairy has to pay FIM 0.50/litre for the amount of milk exceeding the amount delivered to the dairy in 1986. The aim is to prevent the dairies from taking advantage of the free quotas of farms producing less than 30,000 litres a year or from otherwise increasing milk production for business reasons.

10.3. Dual price system for eggs

At the beginning of 1986 a dual price system for eggs came into effect. Each egg producing farm was allocated a quota, which was determined by the largest quantity of eggs sold per 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 is paid according to production quantities as follows:

The provinces of Oulu and Lapland	Additional price	
	FIM/kg	
	1.4.1986	1.3.1987
0—10 000 kg	2.60	2.65
more than 10 000 kg	1.50	1.55
Other parts of the country		
0—10 000 kg	2.30	2.35
more than 10 000 kg	1.50	1.55

To prevent the additional price from causing a rise in the producer price, the target price was lowered by FIM 1.50/kg at the beginning of 1986. If the quota is less than 10,000 kg the producer receives the additional price in full for the whole quota. But if the quota is more than 10,000 kg the additional price is only paid for 90 % of the amount exceeding 10,000 kg, and only a reduced target price is paid for the rest. This price discrimination is regarded as so great that it is not profitable for farmers to exceed their production quotas.

The dual price system has functioned as was expected: in 1986 production decreased by about 3 million kg, in 1987 by about 3 million kg, too, and this trend is expected to continue in 1988. Giving up production as well as the quotas bought by the state and other contracts to decrease production have all contributed to this trend. Because the consumption has increased at the same time, export of eggs has decreased considerably during the past two years. According to a forecast, the excess of the export ceiling will be only 5—6 million kg in 1988. Consequently, the market balance has improved a great deal.

10.4. Export fees

In 1987 the production and export ceilings of agriculture were exceeded considerably less than in the previous years and, according to estimates, agriculture has to account for about FIM 298 million of the export costs (subsidies) of surpluses. The export cost charges collected from agriculture to cover this were as follows

Milk: 0.5 p/l

Pork: 1 p/l

Tax on fertilizers: 19 p/kg January 1-June 30 and 3 p/kg thereafter

Tax on feed concentrates: 7.5 p/kg

In the beginning of 1986 a tax on protein feed came into effect. According to this, a tax of FIM 1.50/kg is collected on all raw protein feed except on protein of grains. The final tax on each feed mix will be determined by its protein content. This measure was introduced because the price of protein was relatively low compared to other components of feed mixes, which probably led to overuse of protein in feed mixes.

The estimated amounts of the export cost charges in 1986 and 1987 were:

	1986	1987 ^e
	FIM million	
Milk	100.5	14
Quota charge	30.3	25
Pork	5.2	2
Tax on fertilizers	262.5	135
Tax on feed concentrates	107.7	77
Tax on protein	91.9	57
Tax on oilseed feed concentrates	10.8	0
Additional marketing fees	30.1	15
Total	639.0	324
Transfer from the previous year	3.8	41
Share of agriculture	601.7	298
Transfer to the next year	41.1	67

In 1986 the marketing fees collected from agriculture were FIM 41.1 million too high. This was compensated to agriculture in 1987, when, according to an estimate, the amount due was exceeded by FIM 67 million, which will be compensated in 1988. In 1988 the production and export ceilings will be exceeded only slightly, and the marketing fees from agriculture will amount to only about FIM 100 million.

10.5. Production support

Finnish production policy is characterized by supply control measures. There are, however, some measures that aim at increasing production, too. The most important of these is the *support of beef production*, the aim being to raise carcass weights. This was considered necessary to secure self-sufficiency in beef in the mid 1970s. As milk production falls, the number of slaughter animals also decreases, and, consequently, beef production is expected to fall as well. Production can be increased, or the fall of production decreased, only by raising carcass weights. At the moment, production support seems to be too high, because overproduction has become a permanent problem. A temporary decrease in the support might be justified. In fact, it is not very economical to raise slaughter weights, either.

Production support is realized through a premium system, whereby a premium is paid for beef, if the slaughter weight is above 160 kg and for heifers above 130 kg (see Appendix 7).

Actual beef production is supported by the so called *beef cow premiums*. In 1987 the premium was FIM 900 per cow and the programme covered about 5,400 cows. In 1987 about 660 new contracts were made.

Additional *production support* is paid for mutton. There is no actual *production support for grain*. However, the production of rye and feed grain is supported by a special regional subsidy in northern Finland. Production support of rye was FIM 0.25/kg and that of feed grain was FIM 210/hectare.

In 1987 *pea production* was supported, too. The production premium of FIM 0.35/kg was paid to the farmer, when he sold his pea crop good for seeds to the officially accepted seed supplier. A minimum area under peas per farm had to be 2 hectares.

11. Price policy support

Of the total return in agriculture, FIM 2 billion consists of the price policy support, which is paid out of the state budget, and which, consequently, forms the consumer subsidy. This amount is always discussed in the agricultural incomes settlement, in which it has gradually taken a form and increased. A part of raises in prices has namely been transferred to target price products, another part to the price policy support. This support aims at balancing incomes within agriculture. However, it also served the attempts to slow down the inflation in the mid 1970s, when part of a raise in the price of milk was transferred as a so called additional price to be paid through the budget. Ever since, this has been a permanent procedure for the additional price of milk. The most important parts of the price policy support are the regional and hectareage subsidies, as well as the additional price of milk and meat. In the last agricultural incomes settlement a total of FIM 2,046.1 million was allocated to the price policy support. Of this amount, FIM 584.8 million was for regional subsidy, FIM 583.8 million for hectareage subsidy, FIM 877.5 million for the additional price of milk, meat and eggs, and FIM 33.0 million for compensations of crop damages.

Hectareage subsidies are paid to farmers whose incomes remain below a set minimum level. This subsidy is tied to the farm hectareage and the number of domestic animals, i.e. to production units (one hectare as well as one dairy cow equals one production unit, one pig equals 0.2 units, etc.). Farms of 7—8 hectares receive the biggest subsidies. Hectareage subsidy was FIM 632 per production unit in 1987 (FIM 584 in 1986). In northern Finland the subsidy is up to 50 % higher.

Hectareage subsidies will be abolished gradually, when retired farmers are concerned. In 1987 hectareage subsidies were lowered by 50% for farmers over 65 of age, and in 1988 it will be abolished completely. Because the money reserved

for hectareage subsidies is divided between the recipients, the amount per unit will increase as the number of recipients decreases.

The *regional subsidy* is paid to milk and meat producers as a production subsidy per production unit. For this purpose the country is divided into 8 regions, and the milk and meat production subsidies are determined for each separately. The regional subsidy is of great importance to farmers in northern Finland. For example, the regional subsidy for milk is FIM 0.15—0.29/l in the province of Oulu. In the northernmost parts of Finland the subsidy for milk is FIM 0.63/l, for pork FIM 0.75/kg and for beef FIM 8.70/kg. This subsidy has proved very effective in balancing the incomes within agriculture. It is estimated that the production subsidy is up to 75% of the agricultural income in northern Finland.

Based on the number of animals, a subsidy, which also includes the former compensation for the price reduction of commercial feed, is paid in northern Finland and in the archipelago. The subsidy is graded regionally and varies from FIM 115 to FIM 1,110 per animal unit. In the southern parts of the supported area the subsidy is doubled for the first five cows and in the north it is tripled for the first six cows.

The *additional price on milk* was introduced in 1974 to slow down inflation. At first it was the same for all farmers, but later it has been graded on the basis of the quantity of milk produced (see Appendix 7). Consequently, it has become a means of balancing incomes within agriculture. In 1988 farmers over 65 of age do not get the additional price and, in general, it is regarded as desirable that retired people would give up farming. Thus some fields might remain out of production, which would reduce overproduction. As was mentioned earlier, farmers over 65 of age will not get hectareage subsidies in 1988. These two factors will probably increase the willingness of farmers to retire, which is also supported by the improvements in the pension systems for retiring farmers.

12. Investment support

The state subsidizes investments by granting *low interest loans* and actual *subsidies* through the Agricultural Development Fund. The majority of these have gone to developing areas to improve the structure of agriculture.

In 1987, FIM 435 million were transferred to the Fund from the state budget. In addition, the Fund had at its disposal FIM 585 million of interest and amortization payments. The total amount of money available for loans was FIM 1020 million. FIM 727 million were used for farm loans, FIM 168 million for purchases of land and the rest for subsidies to farmers, to those practising reindeer herding, as well as for loans prescribed by the act on small-scale industries in the country-side.

In addition, FIM 131.5 million were reserved in the state budget for *interest subsidies* of commercial loans in order to bring their interest rate at the same level with that of the loans granted by the Fund. The total amount of these interest subsidy loans was estimated to be about FIM 694 million. Most of the loans from the Development Fund have gone to developing areas, therefore farmers in southern Finland have to rely on interest subsidy loans or commercial loans with high interest rates.

The so called *start money system* is also part of the investment support system. Young farmers (under 35 years of age) can apply for a state subsidy when they start running a farm. The maximum subsidy has been FIM 50,000 and the subsidy may be used for e.g. buying machines, fertilizers, etc. This subsidy aims at helping the young farmers so that they would not run into debt, which might lead to financial problems during the first years after starting to farm. For this purpose, a total of FIM 162 million was available. According to estimates, 3,200 farmers received this subsidy in 1987. In 1988 there is FIM 135 million available for the start money system in the state budget.

The investment support of agriculture conflicts partly with the restriction of

production. There is no need for new production capacity. But there are not enough jobs in the country-side for those who give up farming and, therefore, a scheme has been adopted to support other industries, which are mainly founded in connection with agriculture and practised by farmers. Fishermen and fur producers are also entitled to this support. The industries have to be practised in the sparsely populated areas.

In 1987 altogether FIM 70 million were reserved for this *support of small-scale industries in the country-side* and the payments will be realized during several years. In addition, FIM 25 million from the loans of the Agricultural Development Fund and FIM 20 million from the interest subsidy loans can be used for this purpose.

An industry that is thus supported must be run by the family or can employ, in addition to the owner, labour from outside corresponding to 2—3 annual jobs. This form of support has been well received and the funds available for this purpose have been too small. About one third of the new enterprises have been small labour intensive enterprises like handicraft shops. Some are typical sideline industries of agriculture like nurseries, gardens, fur farms etc. By the end of the year 1987 about 2,250 applications were made, of which about 1,500 will probably be entitled to support. On average, each supported enterprise will create one new job.

According to the 1988 state budget it is possible to grant new subsidies up to FIM 70 million, loans from the Agricultural Development Fund up to FIM 55 million and interest subsidy loans up to FIM 25 million.

13. Social policy

During the past few years the social security of farmers has been improved to some extent but much remains to be done.

Farmers pensions are prescribed by law and they are comparable with pensions in other sectors. Farmers make

their insurance payments according to their labour income, which is mainly determined by the area of the farm. They are entitled to old-age pensions, part time pensions, disability pensions as well as a pension in case of early retirement. The amount is determined by the insurance payments, but the state also pays a part of the pension costs. Because the number of insured has decreased and the number of retired farmers has increased, the state accounts for about 80 % of the pension costs.

In 1982 farmers' *accident insurance* act came into effect, and it is automatically incorporated in the pension insurance. Those insured are entitled to compensation for costs, to daily allowance and pensions in case of accidents or occupational diseases. Insurance payments are collected from those who according to the act are covered by the insurance. Farmers account for half of the costs of the additional insurance and this is taken into account as agricultural costs in agricultural incomes calculation (FIM 25.4 million in the incomes settlement of spring 1987). The state account for the other half of the additional insurance and the basic insurance is mainly financed through the National Pensions Office.

Farmers engaged in animal production are entitled to an *annual leave* of 17 days. According to 1986 agricultural incomes settlement this leave will be one day longer from the beginning of the holiday year 1988/89. The local municipality has to arrange for workers to the farms for the duration of farmers' holidays. This system is mainly financed by the state, but agriculture also contributes to the costs because part of the costs are taken into account as agricultural income in the agricultural incomes calculation.

Farmers may receive *outside help* in

case of illness, accidents or childbirth as well as for the duration of rehabilitation or military service. For the duration of maternity leave farmers may receive outside help for 155 days. For the outside help payments are collected from farmers, the amounts being determined according to their incomes. These payments are taken into account as costs of agriculture in the agricultural incomes calculation (FIM 15.2 million in the incomes settlement of spring 1987). The costs of outside help system are mainly accounted for by the state, but agriculture pays its share in the agricultural incomes settlement.

Animal husbandry does not allow week-ends off as most other jobs do, which means that these producers have a seven-day working week. A *days-off scheme* has been developed to relieve farmers engaged in animal husbandry of being continuously tied to their work. A farmer can have a maximum of 12 days off a year, either one day at a time or several consecutive days, the maximum per month being five days. Farmers contribute to the costs of this scheme and the amount is determined by the number of animals. Farmers' contributions are taken into account as costs of agriculture in the agricultural incomes calculation (FIM 10.1 million in the incomes settlement of spring 1987). Part of the money from the state is regarded as agricultural income. Only about 15 % of farmers entitled to the days-off have taken advantage of this scheme.

An experiment on 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 40 % of the costs of the health inspections, and the National Pensions Office and the state account for the rest.

IV SUMMARY

In summer 1987 agriculture was met with a very serious crop failure. On average the crop level was 34 % smaller than in the previous year. The yield per hectare of spring wheat and feed grain remained 32—37 % below the yield in 1986. Only the yield of dry hay was satisfactory and even that remained 8 % smaller than in 1986. Besides, grain was very poor in quality, e.g. almost all wheat has to be used as feed.

Due to the crop failure we shall have to import a lot of bread grain. In normal years the production of feed grain has exceeded domestic consumption and, consequently, export of feed grain has been necessary. Now we shall probably have to import some feed grain, too, even though there is feed grain in store from previous years. Even with a normal crop next summer there will probably be no need to export grain in 1988.

Crop failure was a result of the weather conditions during the whole year. The winter was extremely cold and frost went deep in the ground. Due to the late spring and the slow melting of frost, sowing was delayed by 2—3 weeks. The summer was colder than usual and the growing period remained 2—3 weeks behind the normal. The night frost in August and the rainy autumn destroyed the crop. Grain did not ripen and harvesting conditions were very difficult. About 10 % of the area under cultivation remained completely unharvested.

Altogether about 75,000 farmers reported crop damages, which amounted to FIM 3.3 billion. In reality the crop failure was even more severe, because this figure does not include either the losses due to poor quality or the losses in vegetable and garden production. Ac-

ording to the law, the farmers themselves account for 20 % of the damages, which means that the amount to be compensated would be FIM 1.88 billion. In the negotiations between the state and agricultural producers was agreed that the compensation will amount to FIM 1.54 billion, of which FIM 310 million will be regarded as agricultural income in the next price negotiations.

Crop damages are calculated according to an average crop level of five years. Some variation is quite normal, and a slight deviation can by no means be regarded as crop damage. But, in any case, the losses of agriculture were considerable and only a part will be covered by the compensations.

The effects of the crop failure on animal production was actually noticeable only in milk production, which decreased by 4 %. At the beginning of the year milk production was still above the level of the previous year, but by the end of the year the quantities of milk produced were about 10 % smaller than in 1986. This means only that the production target was reached, however, because the quantity of milk delivered to dairies was just below the production ceiling.

The crop failure did not have very much effect on meat production. Slaughterings of cows increased slightly, but beef production remained at the same level as in the previous year. Pork production increased by about 3 million kg. There was a considerable increase in poultry production, 4.5 million kg. Egg production has been reduced through various measures and with good results. In 1987 egg production decreased by 3 million kg, and as consumption has in-

creased slightly, export of eggs has decreased considerably. This trend is likely to continue in 1988 and the production ceiling will probably be exceeded only slightly.

Thus the market situation has improved a great deal. Because there will be no export of grain from the crop of 1987, beef production will exceed the production ceiling most clearly in 1988.

In 1987 the contribution of agriculture to the export costs was FIM 298 million; in the previous year this was still FIM 602 million. In 1988 only about FIM 100 million of export cost payments will have to be collected from agriculture. Thus agriculture will receive some compensation for the losses of the crop failure.

Decrease in production is a result of the crop failure as well as more effective measures to restrict production. The dual price systems for milk and eggs are reducing production gradually. Other voluntary measures have a similar effect. The state's expenses are increasing at the same time, however. The act on restricting land clearing came into force last year, but before that 46,600 hectares were cleared, which naturally keeps up overproduction. Fallowing has been made more effective and it is hoped that through this production can be reduced in the future.

There are no good alternatives for agriculture in the countryside, and consequently, industrial activities should be supported more. The support of small-scale industrial activities aims at this and it has been well received. Farmers and some other people engaged in a trade in sparsely populated areas may receive subsidies from the state for small enterprises operating in connection with a farm. On the basis of the applications made so far it seems that about 2,000 new jobs are being created through this system.

Last year there was hardly any inflation in agriculture. The price index of production inputs rose only by less than one percent. In the spring the target prices were raised by 0.6 % but in the autumn there was no need for further raises. Prices of production inputs remained almost at the level of the previous year. Due to the crop failure the development of incomes was bad, however, and, according to a preliminary estimate, agricultural income decreased by about 21 %. This has a considerable negative effect on the money flow in the countryside. It is estimated that the crop failure reduced the growth of gross domestic product by 0.5 %.

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APPENDIX

Appendix 1. Cost price index in agriculture with subsidies.

	Producerprice index of agriculture	Cost price index	Requisites and tools	Machines	Buildings
1970	100.0	100.0	100.0	100.0	100.0
1971	103.7	107.9	103.6	109.2	109.2
1972	115.0	116.9	107.6	120.2	123.6
1973	129.4	135.6	122.2	133.4	155.5
1974	150.2	167.9	154.6	162.7	201.4
1975	188.2	205.9	188.4	208.3	230.2
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 ^c	464	523	501	534	535

Appendix 2. Some figures of the agricultural structure.

	Number ¹⁾ of farms 1000 pcs	Average ¹⁾ size of farms, hectares	Number of milk suppliers 1000 pcs	Employed persons in agriculture 1000 persons	% of total labour force
1970			190	404	19.0
1971			175	374	17.6
1972	274.4	9.31	163	339	16.0
1973	265.9	9.54	151	304	14.0
1974	258.2	9.79	140	303	13.6
1975	248.7	10.05	128	277	12.5
1976	242.7	10.26	119	244	11.3
1977	237.7	10.43	112	223	10.6
1978	232.8	10.60	104	208	10.0
1979	229.3	10.78	98	200	9.4
1980	224.7	10.96	91	243 ²	10.8
1981	218.9	11.16	85	243	10.7
1982	212.6	11.42	78	245	10.7
1983	208.2	11.63	74	239	10.4
1984	203.9	11.85	70	238	10.3
1985	200.5	12.07	66	223	9.7
1986			63	216	9.4
1987 ^e			58		

¹⁾ Over 1 hectare.

²⁾ The method of data collection has been revised in 1983. The data are not comparable with previous data.

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

	Dairy cows 1000 pcs	Yield per cow, litres	Pigs 1000 pcs	Hens 1000 pcs
1970	889.1	3677	1002.4	4470.9
1971	849.3	3806	1129.3	5249.0
1972	836.5	3889	1045.7	5963.7
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	4920 ^e	1341.9 ¹⁾	5341.6

¹⁾ Including the pigs of dairies.

Appendix 4. Sales of fertilizers (kg/ha)

	N	P	K
1969—70	58.3	27.2	40.0
1970—71	63.7	29.4	43.5
1971—72	68.5	30.5	46.5
1972—73	69.4	30.8	47.4
1973—74	78.2	33.9	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	30.5	55.3
1985—86	92.6	30.7	55.4
1986—87	94.4	31.0	56.5

Appendix 5. Agricultural total calculation, gross return in current prices, mill.mk¹⁾

	1980	1981	1982	1983	1984	1985	1986
Crop production							
Rye	151.0	121.1	68.6	181.8	221.2	195.8	202.0
Wheat	308.9	346.2	551.2	891.7	919.4	999.9	1081.6
Barley	572.5	644.1	823.8	1334.4	1341.8	1446.7	1521.3
Oats	308.1	350.9	487.4	781.8	746.4	606.6	680.6
Potatoes	216.5	198.8	362.3	205.6	221.8	280.6	347.1
Potatoes of processing	101.8	107.1	118.6	185.1	221.1	207.8	215.9
Seed potatoes	—	—	—	—	—	8.1	8.9
Sugar beets	286.3	253.6	349.9	453.8	425.1	373.1	456.9
Oil plants	166.7	182.1	259.8	355.7	295.5	326.3	451.1
Peas	10.3	20.1	33.7	51.5	72.8	22.7	23.6
Grass seeds	26.4	42.5	45.6	43.4	67.4	36.2	31.7
TOTAL	2148.5	2266.5	3100.9	4484.8	4532.5	4503.8	5020.7
Garden production							
Root crops	50.4	34.2	68.7	65.3	50.7	63.6	73.9
Vegetables	297.9	363.7	414.6	386.8	351.6	516.0	525.1
Berries	71.0	142.1	166.5	153.0	126.4	119.2	125.9
Fruits	40.3	46.9	29.7	50.6	41.8	23.5	44.9
TOTAL	459.6	586.9	679.5	655.7	570.5	722.3	769.8
Animal production							
Milk	5753.5	6140.3	6916.2	7640.6	8014.3	8010.5	8048.5
Beef	2007.8	2380.2	2586.4	2840.4	3204.2	3480.1	3529.3
Veal	2.5	4.1	4.2	2.9	3.0	1.6	1.6
Pork	1711.0	2057.9	2290.0	2424.1	2554.1	2787.7	2870.9
Mutton	19.6	23.9	28.4	31.3	34.3	42.6	38.5
Horse meat	11.4	12.8	12.5	13.4	14.9	18.7	17.4
Poultry	114.3	147.7	156.4	182.1	213.0	234.9	266.3
Eggs	578.4	674.2	716.9	825.2	908.5	918.5	886.7
Wool	3.0	3.6	3.6	3.6	3.5	—	—
Export of animals	5.4	7.4	9.4	10.0	12.1	11.0	13.0
TOTAL	10206.9	11452.1	12724.0	13973.6	14961.9	15505.6	15672.2
Production total	12815.0	14305.5	16504.4	19114.1	20064.9	20731.7	21462.7
Income from rents							
Means of production	300.1	327.2	369.5	386.8	440.9	466.0	490.5
Buildings and land	86.5	98.7	108.0	117.0	122.4	120.7	115.1
TOTAL	386.6	425.9	477.5	503.8	563.3	586.7	605.6

¹⁾ Return calculation is uniform in 1980—86. Cost calculation has been revised so that according to the old calculation fertilizer costs would be FIM 1949.5 mill. and feed concentrate costs FIM 3175.1 mill. in 1985.

Appendix 5. continued. Costs and farm income in current prices, mill. mk¹⁾

	1980	1981	1982	1983	1984	1985	1986
Subsidies							
by farm size	283.2	351.3	426.8	500.4	560.4	567.8	579.5
by number of cows	67.9	76.9	93.0	103.1	113.0	119.4	124.2
Premium on feed grains	—	—	28.7	30.3	31.7	41.9	42.6
Premium on bread grains	—	—	79.5	16.8	—	—	—
"Start money"	—	—	—	10.0	57.2	110.5	90.7
TOTAL	351.1	428.2	628.0	660.6	762.3	839.6	837.0
Compensation to reduce production							
Production guiding (4a §)	2.8	20.5	48.7	66.1	69.4	65.1	44.8
Milk bonus	—	8.6	24.1	49.5	88.8	157.2	129.6
Pork bonus	—	—	—	1.5	13.2	13.2	12.6
Egg bonus	—	11.9	5.0	5.5	15.2	—	—
For decreas. animal production	—	—	—	—	5.0	32.8	32.6
Premium on beef	3.6	3.0	5.2	6.0	6.1	5.1	4.2
Fallowing compensations	31.1	—	—	—	28.0	26.3	82.1
TOTAL	37.5	44.0	83.0	128.6	225.7	299.7	305.9
Compensations for crop damages	7.9	2.3	426.8	19.1	7.0	33.0	11.9
Gross return total	13598.1	15205.9	18119.7	20426.2	21623.2	22490.7	23223.2
Cost							
Fertilizers	1233.4	1333.9	1621.4	1745.9	1744.4	1855.4	1877.3
Lime	69.8	41.7	72.8	130.6	89.7	140.2	96.9
Feed concentrates							
mixture	2259.0	2920.8	3414.4	3192.5	3197.8	2819.3	2942.9
other	164.9	184.9	375.7	238.7	247.9	214.1	173.1
Feed conserving chemicals	86.5	95.8	93.6	126.9	140.7	155.1	143.3
Pesticides	134.4	141.4	140.7	192.5	221.9	229.4	264.8
Purchased seeds	237.4	277.6	377.4	398.1	395.5	492.6	481.5
Fuel and lubricants	519.0	576.5	686.3	635.1	709.8	739.2	495.4
Electricity	203.4	235.6	263.1	262.7	279.8	324.1	341.8
Agricultural firewood and timber	114.1	125.2	140.0	143.6	142.2	142.7	137.1
Delivery of calves and pigs	31.2	37.3	42.9	44.7	41.7	46.5	47.7
Overhead costs	724.9	809.4	888.8	1028.9	1138.4	1204.9	1169.1
Hired labor							
wages	271.7	278.9	304.7	298.9	317.8	311.6	335.1
social expenses	122.1	130.8	153.3	146.2	161.1	158.9	187.6
Machinery and equipment expenses							
depreciations	1773.0	2024.0	2223.0	2496.0	2700.0	2794.0	2913.0
maintenance	409.6	484.7	540.0	611.4	671.9	744.6	783.7
Equipment	77.8	85.2	96.7	112.4	120.2	135.0	141.1

Appendix 5. continued. Costs and farm income in current prices, mill. mk¹⁾

	1980	1981	1982	1983	1984	1985	1986
Building expenses							
depreciations	666.0	752.0	825.0	930.0	1022.0	999.0	1062.0
maintenance	253.1	280.1	334.0	365.1	377.2	409.5	435.6
Interest payment	511.4	590.5	683.3	769.8	920.1	1021.2	1022.7
Imports of animals	0.6	0.8	0.4	1.5	1.1	1.8	1.8
Rents							
means of production	194.7	199.0	244.8	288.9	326.8	327.0	342.7
buildings and land	113.2	129.2	140.7	162.3	200.2	209.9	200.2
Farmers' share of costs from							
accident insurance payment	—	—	8.8	14.2	9.1	21.8	25.8
outside help	2.5	2.3	4.1	6.2	9.3	15.2	15.2
days-off scheme	—	—	—	—	—	8.3	10.3
Costs total	10173.7	11737.6	13675.9	14343.1	15186.6	15521.2	15648.0
Gross return	13598.1	15205.9	18119.7	20426.2	21623.2	22490.7	23223.2
Costs	10173.7	11737.6	13675.9	14343.1	15186.6	15521.2	15648.0
Farm income	3424.4	3468.3	4443.8	6083.1	6436.6	6969.5	7575.2

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

	1980	1981	1982	1983	1984	1985	1986
Crop production							
Rye	255.6	188.1	93.5	217.3	235.7	195.8	191.0
Wheat	485.9	521.1	704.2	992.6	977.9	999.9	1033.3
Barley	1011.6	900.9	1001.0	1477.4	1406.1	1446.7	1467.3
Oats	543.5	505.1	606.0	880.8	788.1	606.6	657.7
Potatoes	280.0	246.5	285.8	279.9	328.4	280.6	316.0
Potatoes of processing	162.8	147.3	134.3	214.3	231.5	207.8	229.9
Seed potatoes	—	—	—	—	—	8.1	8.6
Sugar beets	477.2	358.4	418.6	561.9	484.5	373.1	446.8
Oil plants	275.6	272.0	328.9	411.6	314.1	326.3	434.5
Peas	18.1	20.4	28.4	37.8	46.0	22.7	24.0
Grass seeds	40.5	43.0	57.9	52.7	70.8	36.2	36.8
TOTAL	3550.8	3202.8	3658.6	5126.3	4883.1	4503.8	4845.9
Garden production							
Root crops	64.6	40.7	57.9	73.6	54.4	63.6	73.8
Vegetables	488.8	431.8	491.0	534.0	497.6	516.0	510.0
Berries	99.9	171.0	212.2	191.0	105.4	119.2	125.1
Fruits	33.8	47.1	27.3	44.8	36.8	23.5	31.4
TOTAL	687.1	690.6	788.4	843.4	694.2	722.3	740.3

Appendix 6. continued. Costs and farm income in fixed prices, mill. mk.

	1980	1981	1982	1983	1984	1985	1986
Animal production							
Milk	8555.3	8280.8	8250.7	8431.7	8387.9	8010.5	7975.7
Beef	3134.9	3355.8	3215.0	3267.4	3424.9	3480.1	3447.0
Veal	3.2	4.9	4.9	3.2	3.2	1.6	1.6
Pork	2731.1	2913.8	2920.3	2865.3	2757.0	2787.7	2815.2
Mutton	25.6	28.4	31.2	34.1	36.9	42.6	36.9
Horse meat	18.7	18.7	16.6	16.6	16.6	18.7	16.6
Poultry	173.0	194.8	189.1	209.7	225.8	234.9	253.3
Eggs	844.5	853.0	826.2	886.3	946.4	918.5	891.7
Wool	3.4	3.4	3.4	3.4	3.4	—	—
Export of animals	8.3	10.0	11.4	11.4	12.9	11.0	12.7
TOTAL	15498.0	15663.6	15468.8	15729.1	15815.0	15505.6	15450.7
Production total	19735.9	19557.0	19915.8	21698.8	21392.3	20731.7	21036.9
Income from rents							
Means of production	485.9	450.1	472.8	462.6	466.4	466.0	465.2
Buildings and land	123.0	124.4	127.1	130.3	128.5	120.7	120.8
TOTAL	608.9	574.5	599.9	592.9	594.9	586.7	586.0
Subsidies							
by farm size	402.7	442.9	502.4	557.2	588.5	567.8	608.1
by number of cows	96.6	53.7	57.0	59.8	66.4	119.4	130.3
Premium of feed grains	—	43.2	52.5	55.0	52.3	41.9	44.7
Premium of bread grains	—	—	93.6	18.7	—	—	—
"Start money"	—	—	—	11.7	60.1	110.5	95.2
TOTAL	499.3	539.8	705.5	702.4	767.3	839.6	878.3
Compensations to reduce production							
Production guiding (4a §)	4.0	25.8	57.3	73.6	72.9	65.1	47.0
Milk bonus	—	10.8	28.4	55.1	93.3	157.2	136.0
Pork bonus	—	—	—	1.7	13.9	13.2	13.2
Egg bonus	—	15.0	5.9	6.1	16.0	—	—
For decreas. animal production	—	—	—	—	5.3	32.8	34.2
Premium of beef	5.1	3.8	6.1	6.7	6.4	5.1	4.4
Fallowing compensations	44.2	—	—	—	29.4	26.3	86.2
TOTAL	53.3	55.5	97.7	143.2	237.0	299.7	321.0
Compensation for crop damages	11.2	2.9	502.4	21.3	7.4	33.0	12.5
Gross return total	20908.6	20729.6	21821.3	23158.6	22998.9	22490.7	22834.5

Appendix 6. continued. Costs and farm income in fixed prices, mill. mk.

	1980	1981	1982	1983	1984	1985	1986
Fertilizers	1914.2	1694.7	1943.6	2043.9	1891.2	1855.4	1865.4
Lime	95.6	53.7	82.1	140.4	94.3	140.2	93.1
Feed concentrates							
mixture	4164.9	4407.1	4584.6	3747.7	3336.0	2819.3	2979.3
other	350.0	312.0	455.2	310.7	281.1	214.1	215.4
Feed concerning							
chemicals	109.5	112.8	109.3	143.4	146.8	155.1	145.3
Pesticides	209.1	202.1	193.2	227.8	234.2	229.4	261.7
Purchased seeds	408.1	398.5	464.4	452.2	418.9	492.6	480.2
Fuel and lubricants	735.1	656.6	762.6	659.5	715.5	739.2	745.0
Electricity	248.6	246.5	257.4	267.9	290.2	324.1	330.0
Agricultural firewood							
and timber	157.2	151.7	161.1	162.4	151.1	142.7	140.0
Delivery of calves and							
pigs	46.5	49.8	51.3	52.5	46.6	46.5	45.7
Overhead costs	1030.9	1020.4	1046.3	1145.8	1195.5	1204.9	1225.0
Hired labor							
wages	441.7	405.8	394.6	363.2	347.5	311.6	309.4
social expenses	198.4	190.3	198.5	177.7	176.2	158.9	173.2
Machinery and equip-							
ment expenses							
depreciations	2532.0	2622.0	2699.0	2754.0	2796.0	2794.0	2790.0
maintenance	605.9	661.3	668.3	678.6	709.5	744.6	755.0
Equipment	111.1	110.5	117.5	124.1	124.6	135.0	135.0
Building expenses							
depreciations	917.0	955.0	992.0	1036.0	1073.0	999.0	1013.0
maintenance	361.7	365.4	416.7	425.3	399.4	409.5	410.0
Interest payment	725.2	725.4	765.1	844.3	903.7	1021.2	1118.5
Imports of animals	0.9	1.1	0.4	1.7	1.2	1.8	1.8
Rents							
means of production	315.3	273.8	313.3	345.5	345.7	327.0	325.0
buildings and land	161.2	163.1	165.9	181.0	210.6	209.9	210.1
Farmers' share of costs							
from							
accident insurance							
payment	—	—	10.4	15.8	9.6	21.8	27.1
outside help	3.6	2.9	4.8	6.9	9.8	15.2	16.0
days-off scheme	—	—	—	—	—	8.3	10.8
Costs total	15843.7	15782.5	16857.6	16308.3	15908.2	15521.2	15821.0
Gross return	20908.6	20729.7	21821.3	23158.6	22998.9	22490.7	22834.5
Costs	15843.7	15782.5	16857.6	16308.3	15908.2	15521.2	15821.0
Farm income	5064.9	4947.2	4963.7	6850.3	7090.7	6969.5	7013.5

Appendix 7. Target prices of agricultural products in 1960—87.

	Rye ¹⁾ (South- area) p/kg	Wheat ¹⁾ p/kg	Milk ²⁾ p/l	Beef (all) ³⁾ p/kg	Pork mk/kg	Eggs mk/kg	Feed- barley ¹⁾ p/kg	Feed- oats ¹⁾ p/kg	Mutton ⁴⁾ mk/kg
1.9.1960	47.50	50.00	30.65		2.75	2.60			
1.9.1961			30.82		2.72	2.55			
1.9.1962	49.50		31.85	(2.73)	2.80	2.45			
1.3.1963			32.70		2.98	2.57			
1.9.1963	52.00	54.00	34.13	(2.80)	3.05	2.60			
1.3.1964			36.06	(2.90)	3.21				
1.9.1964	58.00	60.00	38.14		3.36	2.70			
1.3.1965			40.79	3.46	2.80				
1.9.1965			40.34	2.95	3.36				
1.3.1966				3.44					
1.9.1966	58.00	60.00	41.98	4.05	3.45	3.00			
1.9.1966	58.00	60.00	41.14	4.05	3.45	3.00			
1.9.1967			45.16	4.13					
1.3.1968			48.95	4.53	3.60				
1.6.1968	61.00	63.00	49.32	4.63	3.80	3.15			
1.1.1969				5.06	4.00	3.20			
1.4.1970	63.00	62.00	49.57	5.71	4.20	3.35			
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 ⁵⁾	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 ⁶⁾	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 ⁷⁾		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 ⁸⁾	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	207.00	190.00	188.90	20.73	13.14	8.88	142.00	133.50	23.80

1.9.1982 ⁹⁾	202.70	185.80	188.90	20.73	13.14	8.88	138.00	129.50	23.80
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	220.70	204.80	205.70	22.31	14.18	9.60	151.00	141.50	25.30
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	245.00	218.00	221.60	23.91	15.38	10.20	161.00	150.00	26.15
1.3.1985	264.00	231.00	228.60	24.67	16.05	10.50	170.00	158.00	26.15
1.9.1985			230.10						
1.1.1986	264.00	231.00	230.10	24.67	16.05	9.00	170.00	158.00	26.15
1.4.1986	270.00	233.00	232.00	24.97	16.25	8.80	170.00	158.00	25.15
1.3.1987	270.00	233.00	234.50	25.10	16.30	8.80	170.00	158.00	24.65

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 1960—62 with 4 % fat p/kg and due to the new fixing of fat, from 1963 milk with 3.9 % fat which corresponded to the earlier 4 % fat milk including production support. From 1967 without production support and from 1973 milk with medium fat p/l without production support.

The additional price of milk is paid as follows:

1.4.1974—31.3.1975	7 p/l	
1.4.1975—28.2.1977	22 p/l	
from 1.3.1977	15 p/l	
from 1.9.1981	15 p/l	up to 200 000 litres
from 1.3.1982	16 p/l	up to 200 000 litres
from 1.4.1983	15 p/l	up to 200 000 litres
from 1.3.1984	13.5 p/l	up to 200 000 litres
from 1.9.1985	12 p/l	up to 150 000 litres

and in addition step-up additional price

1.2.1979—31.3.1980	2 p/l	up to 24 000 litres
1.4.1980—31.8.1980	7.5 p/l	up to 30 000 litres
from 1.9.1980	8.3 p/l	up to 30 000 litres
from 1.3.1981	9.8 p/l	up to 30 000 litres
from 1.9.1981	10.5 p/l	up to 30 000 litres
from 1.9.1983	11.5 p/l	up to 30 000 litres

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.

The additional price for eggs paid for beginning from 1.1.1986 is following:

Production quota	Oulu and Lapland			The rest of the country		
	mk/kg			mk/kg		
	1.1.86	1.4.86	1.3.87	1.1.86	1.4.86	1.3.87
0—10 000 kg	2.20	2.60	2.65	1.95	2.30	2.35
More than 10 000 kg	1.50	1.50	1.55	1.50	1.50	1.55

3) In addition a production premium for beef is paid:

1.4.1974—31.3.1975	1.00 mk/kg	bulls and heifer over 160 kg
1.4.1975—31.8.1979	1.30 mk/kg	bulls and heifer over 160 kg
from 1.9.1979	1.30 mk/kg	bulls and heifer 160—210 kg
	2.00 mk/kg	bulls and heifer over 210 kg
from 1.4.1980	1.30 mk/kg	bulls and heifer 160—210 kg
	2.20 mk/kg	bulls and heifer over 210 kg
from 1.4.1981	1.30 mk/kg	bulls 160—210 kg
	2.20 mk/kg	bulls over 210 kg
	2.20 mk/kg	bulls over 160 kg
from 1.9.1981	1.50 mk/kg	bulls 160—210 kg
	2.50 mk/kg	bulls over 210 kg
	2.50 mk/kg	heifer over 160 kg
from 1.3.1982	1.90 mk/kg	bulls 160—209 kg
	2.90 mk/kg	bulls over 210 kg
	1.00 mk/kg	heifer 130—159 kg
	2.90 mk/kg	heifer over 160 kg
from 1.3.1987	2.00 mk/kg	bulls 160—210 kg
	3.10 mk/kg	bulls over 210 kg
	3.10 mk/kg	heifer over 160 kg

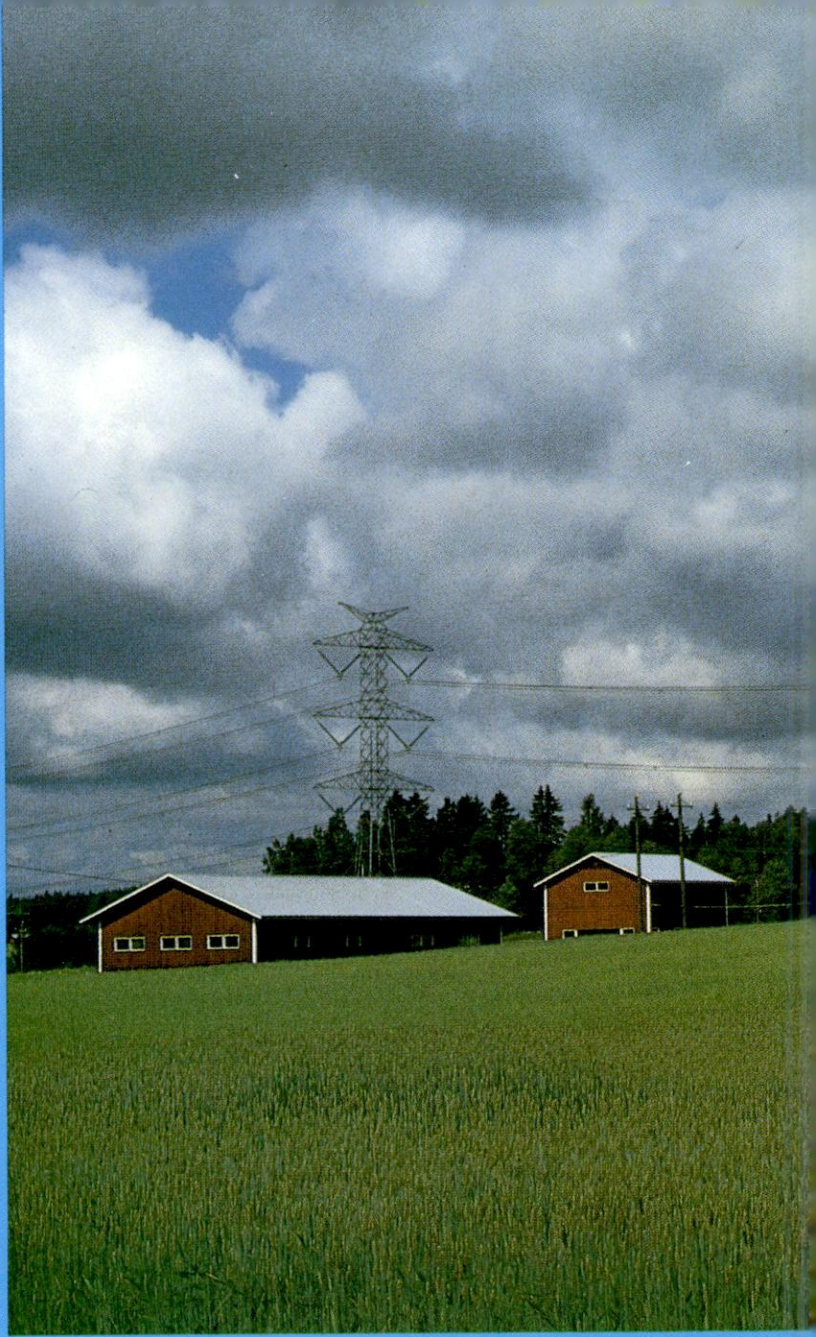
4) In addition a production premium for mutton is paid:

1.8.1977—31.8.1979	1.30 mk/kg	
1.9.1979—31.3.1980	2.00 mk/kg	
from 1.4.1980	2.20 mk/kg	
from 1.9.1981	2.50 mk/kg	
from 1.3.1982	2.90 mk/kg	
from 1.9.1983	3.20 mk/kg	
from 1.3.1984	3.70 mk/kg	
from 1.3.1985	5.20 mk/kg	16 kg over
	4.70 mk/kg	12—15 kg
from 1.4.1986	6.20 mk/kg	over 16 kg
	5.70 mk/kg	13—15 kg
from 1.3.1987	7.20 mk/kg	over 16 kg
	6.70 mk/kg	13—15 kg

- 5) New statistical basis for beef and pork
- 6) Target prices for meat were applied from 1.3.
- 7) Target prices for meat were applied from 1.2. and for eggs from 1.4.
- 8) Target prices for meat were applied from 12.1.
- 9) Grain prices on farm level from 1982.

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