

MAATALOUDEN TALOUDELLISEN
TUTKIMUSLAITOKSEN
TIEDONANTOJA N:o 94 a

*THE AGRICULTURAL ECONOMICS
RESEARCH INSTITUTE, FINLAND
RESEARCH REPORTS No. 94 a*

FINNISH AGRICULTURE IN 1982

LAURI KETTUNEN

HELSINKI 1983

MAATALOUDEN TALOUDELLISEN
TUTKIMUSLAITOKSEN
TIEDONANTOJA N:o 94a

THE AGRICULTURAL ECONOMICS
RESEARCH INSTITUTE, FINLAND
RESEARCH REPORTS No. 94a

FINNISH AGRICULTURE IN 1982

Lauri Kettunen

Helsinki 1983

Preface

This publication is a short review of agricultural development in Finland in 1982. Some of the statistical data is final but some is still very preliminary. Crop yield data will not change and both production and producer prices are evidently quite close to the final values. The quantities and prices of farm inputs, however, include considerable sources of error and therefore the estimate of the changes in farm income must be considered a rough assessment which may be altered by several percentage points later on. The total calculation for agriculture, from which the farm income is obtained, is under continuous examination, incorporating improved statistical processing methods.

Part III of the publication contains a review of agricultural policy. It does not aim to give a complete description of all policy sectors but concentrates on some randomly selected parts.

I wish to express my gratitude to Lulu Siltanen, Seppo Hassinen, Helena Koivula, Merja Manninen and Paavo Mäkinen who have helped me to prepare this publication. I also thank the English Centre for checking the English translation.

This report is also published in Finnish in Research Reports No. 94 of the Institute.

Helsinki, January 17, 1983

Lauri Kettunen

I INTRODUCTION

1. Economic development

Finland's economic situation deteriorated still further in 1982. The increase in the gross domestic product was only about one per cent compared with 1.3 % in the previous year. Growth is expected to stay at the same level even in 1983. The recession seems to be lasting longer than expected.

The halt of the growth in exports is the most significant cause of the present economic stagnation. The forest industries, in particular, have experienced difficulties and were compelled to apply large production stoppages and compulsory vacations at the turn of the year. The balance of payments showed only a small deficit, which is partly explained by the surplus in trade with the Soviet Union. The recession is also continuing in the western countries, which is a reason for the decline in exports. The weakening price competitiveness of Finnish export firms is also considered a reason for the poor trend in exports. This was one of the reasons for the devaluation of the Finnish mark by 10.5 % in October.

The annual rate of inflation declined to about 9 %, compared with 12 % in 1981, but it is still higher than the average for the OECD countries. The recession is being most strongly felt in the unemployment rate, which rose to about 6.5 % (5.3 % in 1981). The forecast for 1983 is a further worsening of the situation. Unemployment is not high by international standards, and in fact is lower than the OECD average. Employment was highest in the metal industry, but work stoppages have now been necessary there, too.

The effects of the recession are strengthened by weak investment activity, which is partly caused by low export demand. The money market has been rather easy but it has not been possible to recover investments. Nowadays, private investment is often dependent on rationalisation, which weakens employment. The increase in private consumption, however, was about 2 %, but since investments fell by slightly and the decline in exports was about 3 %, the increase in the GDP was only about 1 % in 1982.

In spite of the recession, the Finnish economic situation is not considered hopeless. The balance of payments and the buoyant money market give some room for manoeuvre in private and public economic policy. The national debt is still relatively small, which means that a deficit in the state budget is feasible, thus activating the national economy. However, the deficit will soon have to be taken into account. The gross tax rate will have to be raised unless economic growth improves for a more sustained period.

Agriculture had a considerable effect on economic growth, because the poor crop in 1981 meant that during the first part of the year agricultural production was 7-8 % lower than in 1981. The good crop in summer 1982 improved the increase during the latter part of the year. The recession in forestry also affects farmers' incomes, since commercial felling has dropped and stumpage prices have fallen.

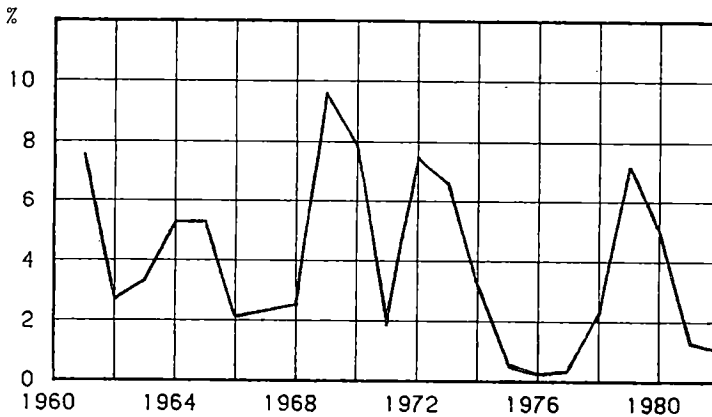


Figure 1. Growth in the volume of the gross national products in 1960-82.

II PRODUCTION, PRICES AND INCOME

2. Plant production

The growing season began somewhat gloomily. Sowing was on time or even earlier than usual in some places, but the cold weather in early June worried many farmers. Night frosts damaged early potatoes and grain crops were also thought to have suffered. Almost the entire wild berry crop was lost. The average temperature for June was much lower than normal: the newspapers of June 8-10 showed pictures of children skiing.

However, the yield was good. The weather warmed up to normal in July and August and rain did not hamper harvesting during the autumn. Both farmers and holiday-makers were satisfied with the summer weather. Only the hay yield suffered, in terms of quantity, from the coldness of the early summer, but qualitatively speaking it was good.

Table 1. Yields of the main crops in 1981 and 1982.

	1981			1982		
	Area 1000 ha	100 kg/ha	Yield Total mill.kg	Area harvested 1000 ha	100 kg/ha	Yield Total mill.kg
Winter wheat	21.3	18.3	32.0	15.7	30.9	48.5
Spring wheat	90.1	22.5	203.0	127.2	30.4	386.9
Rye	40.7	15.7	63.9	16.3	21.5	35.0
Barley	570.0	19.0	1080.1	540.4	29.6	1598.5
Oats	434.1	23.2	1007.5	459.3	28.7	1319.9
Potatoes	36.9	129.5	477.8	39.1	153.7	601.1
Sugar beet	31.7	214.7	680.5	32.4	233.4	756.1
Hay	449.5	37.3	1675.4	445.3	37.9	1689.4
Silage	234.2	164.9	3861.5	244.4	176.7	4319.2
Oil seeds	55.5	12.4	69.1	63.7	15.1	96.3
Other crops	63.7			64.3		
Total	2023.9	1925 ¹	3957.1 ²	2048.1	2526 ¹	5094.4 ²
Pasture	202.2			205.4		
Fallow	67.5			74.2		
Soil bank	85.8			74.1		
Other land	98.4			114.8		
Total Acreage	2477.8 ³			2516.6		

¹ f.u./ha without straw

³ excluding unharvested area 62,100 ha

² million f.u. without straw

The average yield rose to 2526 feed units (f.u.) per hectare, nearly to the 1976 record yield (2532 f.u. per ha). The yields of dry hay and silage were below normal and so no new record was achieved. The average yield was about 4 % above the longterm trend, and as such the yield was only slightly better than normal. The total yield (5094 mill. f.u.) on the other hand was much below the total yield in 1976 (5560 mill. f.u.). This is due to the fact that the cultivated area has fallen by 7 % in six years. The total acreage under cultivation has decreased by 4 % and the area of uncultivated land (soil bank, fallow and other) has increased to 263,000 hectares.

The acreage under rye was small because of heavy rain in autumn 1981. Moreover, the yield was lower than usual. The self-sufficiency ratio is only about 40 % for 1982/83. The acreage under wheat did not reach the target, but as a result of the normal yield and sufficient stocks, there is no need to import wheat during winter 1982/83.

The area under bread grain cultivation should be greater than in 1982 because of the programme to increase stocks. The area of rye sown in autumn 1982 was about 50,000 ha, which is sufficient for domestic consumption. The goal, however, is 60,000 hectares. Increasing the area under bread grain has been slowed down by the tendency to grow more oil seeds, which compete with wheat for the same land in southern Finland.

Feed grain yields were good, too. Yields per hectare were greater than normal and the quality was good. There is no need to import feed grain. Potatoes clearly suffered from the cold and drought during the early summer since the yield per hectare was below expectations. However, the yield is sufficient for domestic consumption. The sugar beet is a below that at the beginning of the 1970s. The self-sufficiency ratio, however, is around 50 % as earlier.

Dry hay and silage yields were below normal, but the quality was good, which raised the milk yield to normal at the beginning of the new indoor feeding period.

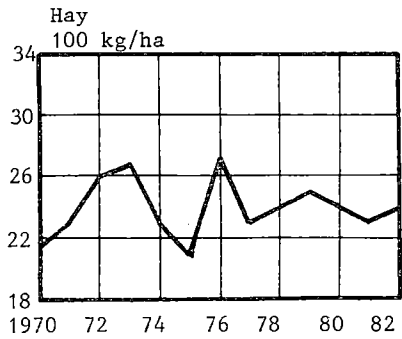
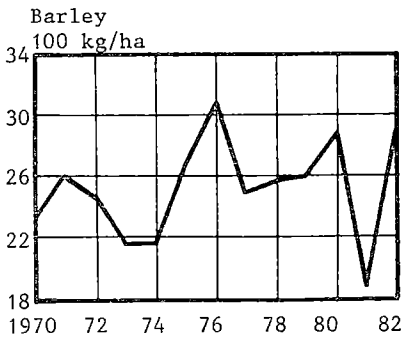
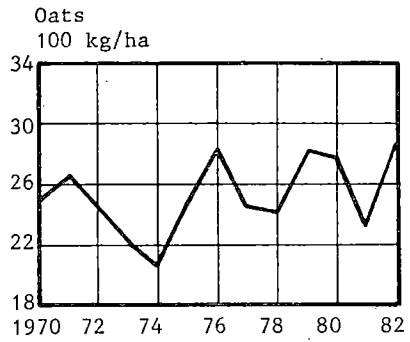
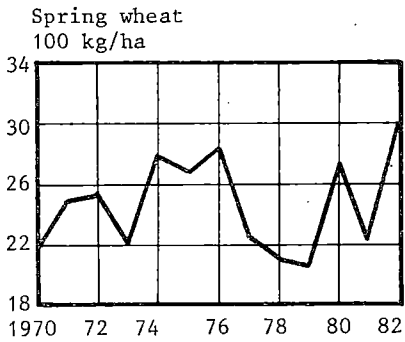
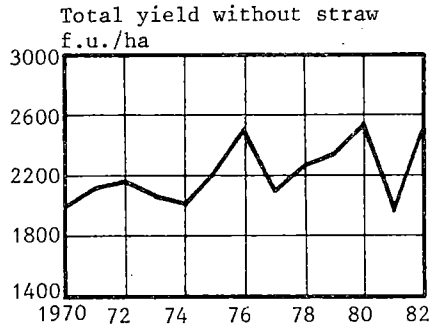
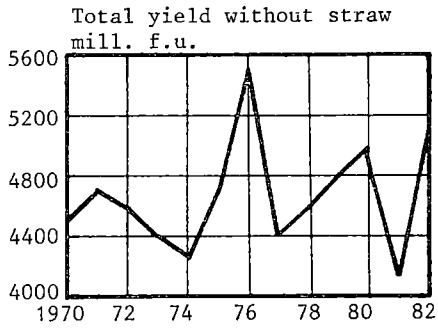


Figure 2. Total yield and the per hectare yields of wheat, oats, barley and hay in 1970-82.

There are no satisfactory statistical data for the production of special crops. The domestic production of vegetables and berries easily covers demand, some excess supply occasionally being faced. For example, the price of strawberries fell sharply during the summer since a large crop ripened rapidly and simultaneously everywhere. A part of the harvest was left in fields.

The good yield after the previous year of crop damage certainly gave hope to many farmers. The income of grain growers, in particular, fell considerably during the 1981/82 crop year, but the poor yield in 1981 was also felt by milk producers, because milk yields fell by 6-7 % during the 1981/82 feeding period. Unfortunately, the good yield is already causing headaches. Production ceilings will be exceeded and additional income may not be forthcoming.

Table 2. Quantities of domestic crops marketed in 1976-82, mill.kg.

	1976	1977	1978	1979	1980	1981	1982 ^e
Rye	96	94	57	60	90	64	29
Wheat	469	341	97	108	208	184	244
Feed wheat	66	136	113	59	5	42	55
Oats	483	723	615	588	592	527	555
Barley	365	374	261	273	347	322	373

e = preliminary estimate

The total calculation (Appendix 6), which is used to express farm income, includes the quantities of domestic crops marketed. The 1981 crop failures still influence the 1982 figures, even though there was some recovery of trade during the latter part of 1982.

3. Animal production

Milk production fell by about 0.5 % in 1982. However, as mentioned above, there was considerable fluctuation. During the first part of the year production was still 5-6 % lower than in the previous year but during the latter part of the year yields per cow rose to the normal level (see Figure 3).

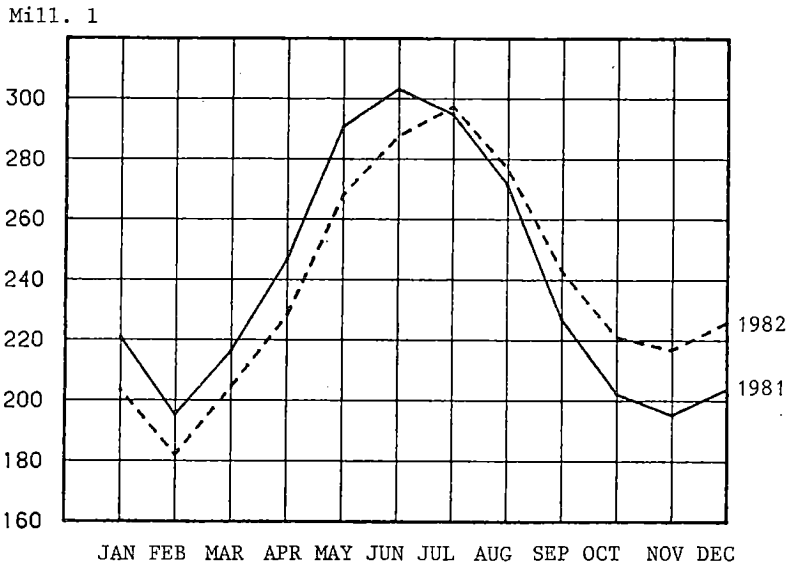


Figure 3. Monthly quantities of milk delivered to dairies in 1981 and 1982.

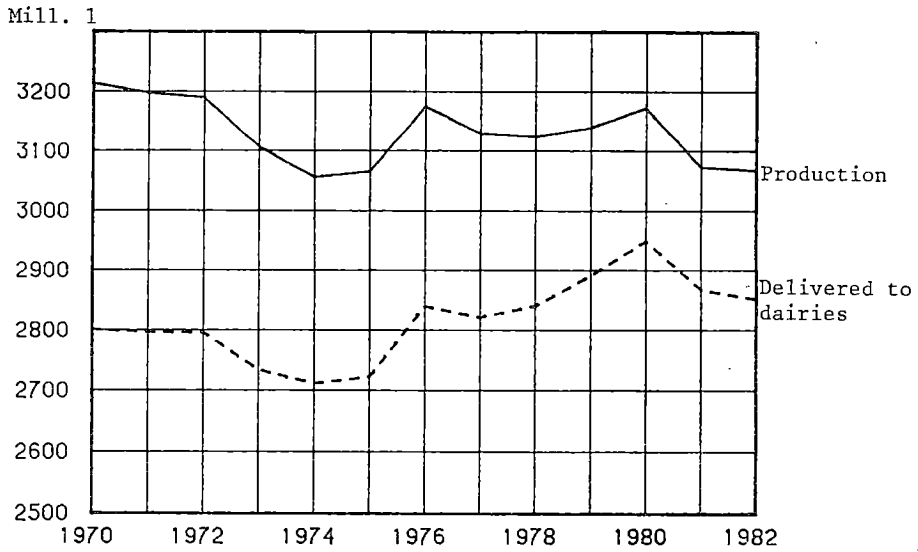


Figure 4. Milk production and the quantity of milk delivered to dairies in 1970-82.

Table 3. Animal production in 1977-82.

	1977	1978	1979	1980	1981	1982 ^e
Milk, mill. litres	3130	3125	3141	3174	3082	3067
Beef, mill. kg	106	106	110	114	122	115
Pork "	140	154	164	169	179	184
Eggs "	85	76	76	79	80	82
Poultry "	13	12	14	15	17	17
Other meat "	2	2	2	2	2	2

The forecasting of milk production has proved difficult. The shift from one crop year to another may greatly change the yield per cow. The reason is clearly the quality of the feed. The quality was bad in 1981 and the yield per cow dropped during winter 1981/82.

Last summer's crop was good in quality and so yields rose to comply with the long-term linear trend. The decline in the number of dairy cows has been fairly uniform at about 1.5-2.5 % per year (see Appendix 4). The decrease in production, which is a target of the national government, does not seem to be succeeding, and the quantity of milk delivered to dairies is expected to increase to about 2,880 mill. litres, exceeding the production ceiling by about 100 mill. litres (see section 9.3).

Changes in the structure of milk production are still rather rapid (see Appendix 3). The number of milk producers is declining by nearly 10 % per year. The average herd size is now about 9 dairy cows. Beef production declined to about 115 mill. kg or by 6 %. On the other hand, pork production increased by 3 %, even though there are signs of a downward trend. The number of pigs has fallen and it is forecast that pork production will decrease by 2-4 mill. kg in 1983. Beef production will probably fall by 2-4 mill. kg, but it is also possible that attempts to restrict milk production (slaughtering of dairy cows) may even cause a slight, temporary rise in production.

Continuous efforts have been made to curtail egg production, because the self-sufficiency ratio is about 150 %. The action taken has not, however, been successful, and production has risen slightly in recent years. It was about 82 mill. kg in 1982 and will stay at the same level in 1983.

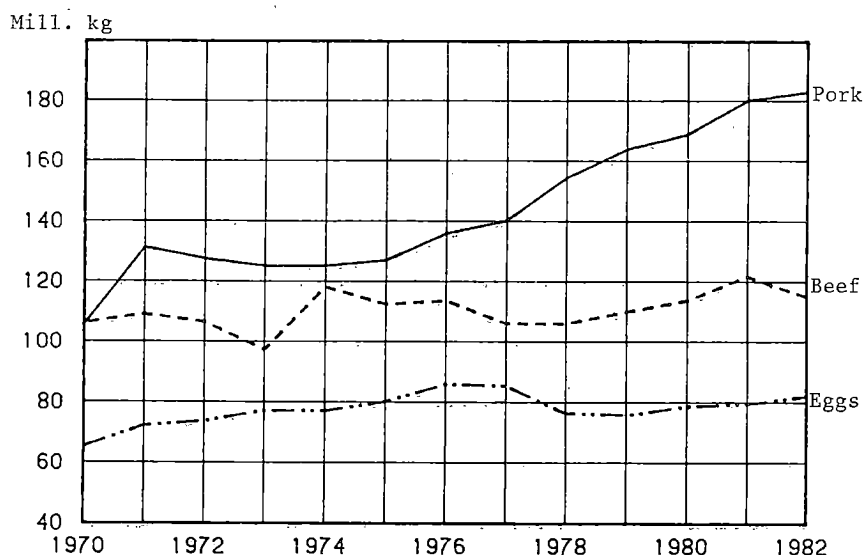


Figure 5. Production of beef, pork and eggs in 1970-82.

It should be noted here that moose meat "production" was about 7 mill. kg in 1982. This has some effect on the demand for beef. In addition, reindeer meat production is about 1.5 mill. kg per year.

4. Consumption

The consumption of agricultural products is thought to react to economic fluctuation, even though the prices and incomes flexibility of the consumption is small, but for a few exceptions. In many countries it has been found that during the recession demand has shifted from expensive meat (beef) to cheaper cuts or meats (pork and chicken). World market prices have been falling due to poor demand, even though the supply of grain has increased as a result of good yields.

The economic situation may have some effect on consumption in Finland, too, but no essential changes can be seen in the consumption of agricultural products. The consumption of milk products, in particular, has been stable. The consumption of liquid milk and butter fell slightly, whereas cheese consumption rose. Development has closely followed the long-term linear trend, which indicates that development is rather a result of changes in consumer preferences than of economic factors.

Table 4. Consumption of milk products in 1975-82, kg per capita.

	Milk	Butter	Cheese
1975	291.8	12.9	6.2
1976	287.5	12.6	6.2
1977	282.3	12.0	6.2
1978	279.1	11.7	6.5
1979	276.0	12.2	6.8
1980	272.6	11.3	7.2
1981	264.0	11.5	7.7
1982 ^e	260.0	11.0	7.9

Surprisingly, pork consumption rose by about 3 %. This growth corresponds to the long term forecasts, but the growth has been rather slow during recent years and long-term forecasts have been revised downwards. Beef consumption has stayed stable, and no increase is expected in the future.

Changes in the consumption of other meats are small. With respect to international consumption, Finns eat relatively little poultry meat. Egg consumption has stayed at the present level for many years.

Table 5. Consumption of meat and eggs in 1975-82, kg per capita.

	Beef	Pork	Poultry	Eggs
1975	24.2	26.7	2.4	10.9
1976	23.6	25.9	2.4	11.0
1977	22.6	27.3	2.7	10.9
1978	22.0	27.8	2.5	11.6
1979	23.3	28.9	2.9	11.6
1980	23.1	29.5	3.2	11.7
1981	22.3	29.3	3.5	10.7
1982 ^e	21.8	30.3	3.5	11

5. Foreign trade

Due to the poor crop in 1981, 885 mill. kg of grain were imported during the first part of 1982, 308 mill. kg wheat, 96 mill. kg rye, and 480 mill. kg feed grain. In addition, about 217 mill. kg of feed concentrates were imported. Some of the imports have been used to replenish stocks and no further import, of grains will be required during winter 1982/83.

Table 6. Exports of some agricultural products in 1975-82,
mill. kg.

	Butter	Cheese	Milk powder	Pork	Beef	Eggs
1975	11.9	21.3	20.1	2.0	1.6	28.5
1976	21.2	30.2	22.0	12.0	2.4	34.4
1977	15.6	33.6	29.1	11.1	0.5	33.8
1978	14.9	36.5	27.4	22.1	0.8	22.2
1979	17.4	40.9	28.1	27.3	0.4	21.0
1980	9.8	41.1	30.5	25.5	0.9	25.8
1981	14.7	37.6	28.4	39.7	16.1	27.5
1982 ^e	7	34	23	36	9	30

Exports of agricultural products decreased in 1982. The reason for this was the decrease in milk production, particularly in early 1982, which caused a decline in the exports of cheese and milk powder. Beef and pork exports, declined, too. Dairy exports can be expected to grow again together with rising milk production, but meat exports will decrease since a decline in meat production is forecast.

Export prices have remained satisfactory even though they are falling slowly. The value of exports rose considerably in 1981 (Table 7) but fell slightly in 1982. The value of imports is larger than that of exports, but this is due to imports of coffee and fruits which cannot be grown in Finland. Grain imports were exceptionally high in 1982, but this will not occur again in 1983.

Table 7. The value of exports and imports (Brussels Nomenclature 1-24)
in 1975-82, mill. mk.

Year	EXPORTS	IMPORTS			
		Total	Coffee and tea	Fruit	Drinks 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 ¹	1818.0	4392.1	834.6	524.4	231.8

¹ January-October

6. Agricultural income decisions

Regulation of agricultural prices is based on the Farm Incomes Act, the latest version of which is from 1977. According to this act, the state and the farmers' organisations negotiate twice a year on prices. Two phases can be discerned in the negotiations: firstly, the rise in costs caused by the increase in prices of farm inputs (for which farmers receive full compensation) are calculated; and secondly, the increase in farm income.

Cost compensation is determined by calculating the total costs in agriculture. The averages of inputs from the last 3 calendar years are used as weights in the calculation. The price levels refer to January and July.

The increase in farm income is completely dependent on the negotiations. Nevertheless, wage and salary agreements made in other sectors of the economy have often been a starting point. The increase can be applied on a percentage basis, a "penny-per-hour-system" or some mixed method.

The labour input in agriculture has been estimated for this purpose. However, it is difficult or even impossible to say on which principle the final price decision is based.

This year the increase in incomes was already known, since the two-year general wages and salaries agreement (the "Pekkanen" solution) made in 1981, included the increases in farm income for 1981 and 1982.

6.1. Spring price decision

Since the increase in farm income had already been decided, the task of the spring negotiations was to calculate the cost compensation and divide the total sum between the different products.

The Agricultural Prices Council is responsible for the cost calculation for the whole of agriculture. Fixed quantities (the averages of calendar years 1979-81) are used in the calculation, which, is thus

Table 8. Cost calculation, spring 1982.

	Price level in autumn 1981 million marks	Price level in spring 1982 million marks	Change %
Gross return			
Target price products	11,648.8	11,648.8	
Other products	1,079.2	1,317.9	22.1
After payments	423.1	423.1	
Price support	1,591.2	1,591.2	
Total	14,742.3	14,981.0	1.6
Costs			
Requisites	5,898.0	6,307.6	6.9
Wages	419.8	445.0	6.0
Machinery and implements	2,384.3	2,573.4	7.9
Building costs	893.8	926.1	3.6
Interest	518.8	521.8	
Total	10,114.7	10,773.9	6.5
Farm income	4,627.6	4,207.1	
Change		420.5	

an index calculation. The rise in costs was 659.2 mill. mk or 6.5 % from July 1981 to January 1982 (Table 8). The increase in the return on other products was 238.7 mill. mk, which has to be deducted from the final compensation to farmers. The deviation of producer prices from target prices has to be taken into account in the price decision. In 1980 producer prices were slightly above the targets, and so 9.9 mill. marks were deducted from prices in 1981. That sum was returned to prices in 1982. Similarly, in 1981 producer prices were below the targets and therefore prices were raised by 163.1 mill. marks for the pricing year 1982/83.

Table 9. Income and cost calculation for the spring price decision.

	mill. mk
Increase in costs	+ 659.2
Increase in gross return on other products	- 238.7
Deviation from producer prices 1980	+ 9.9
Deviation from target prices 1981	+ 163.1
Total	<u>593.5</u>

The 1981 income decision includes an index clause according to which wages, salaries and farm income had to be raised at the beginning of March 1982, if the cost of living index corrected by the change in the terms of trade had risen by more than 6 % from March 1 to December 31, 1981. This increase was about 0.6 % and so farm income was raised by 27.8 mill. marks. It was further agreed that 59 mill. marks from the autumn decision would be used for raising grain prices. They are effective from August 1. The final increase in target prices was 845.3 mill. marks, and taking into account the increase in grain prices, 904.3 mill. marks in following way:

Cost calculation	593.5 mill. marks
Index clause	27.8 "
Increase in farm income	224.0 "
From autumn decision	<u>59.0</u>
Total	904.3 mill. marks

Of this total sum, 766.2 mill. marks (including the 59.0 mill. mk from the autumn decision) were directed to target prices and 138.1 mill. marks to price support. Grain prices were raised more than other prices (about 10 %). The price support for beef was raised by 40 p/kg in general, and for heifers of 130-159 kg a new price support of 1.00 mk/kg was agreed upon (see Table 11).

6.2. Autumn price decision

The autumn price decision includes the compensation for costs from January to July. Inflation slowed down considerably during the year and the increase in cost prices was only 1.5 % (Table 10). Only the wages of hired labour rose markedly, by 5.8 %. After payments by cooperative dairies and slaughterhouses to farmers at the end of the year did not raise the gross return very much in 1982. The cost compensation therefore totalled 150.4 mill. marks. An increase in farm income of 202.0 mill. marks had already been agreed on, and so the total increase in prices was 352.4 mill. marks.

Table 10. Cost calculation, autumn 1982, million marks.

	Price level in spring 1982	Price level in autumn 1982	Change per cent
Gross return			
Target price products	12,415.2	12,415.2	
Other products	1,317.9	1,317.9	
After payments	423.1	433.1	2.4
Price support	1,729.3	1,729.3	
Total	15,885.5	15,895.5	0.1
Costs			
Requisites	6,307.4	6,382.6	1.2
Wages	445.0	471.0	5.8
Accident insurance		30.0	
Machines and implements	2,573.4	2,589.2	0.6
Building costs	926.1	939.5	1.4
Interests	521.8	521.8	
Total	10,773.7	10,934.1	1.5
Farm income	5,111.8	4,961.4	
Change		150.4	

Of this total sum, 59.0 mill. marks had already been used for the increase in grain prices in the spring decision. Agriculture also contributes to holiday payments and payments for farm help during illness, and so prices were lowered by 12.5 mill. marks. Price support was raised by 30.1 mill. marks and thus the target prices for animal products could be increased by 250.8 mill. marks (see below). Most of it went to milk (6 p/l or 3.3 % increase).

Price decision	
Increase in income	202.0 mill. marks
Other products	-10.0 "
Cost compensation	160.4 "
From spring decision (grain)	-59.0 "
Vacation and substitute compensation	-12.5 "
Total	280.9 mill. marks

Taking into account both the spring and autumn decisions, price increases slightly favoured grain. The target price for feed oats was raised by 11.7 %, whereas the beef price was increased by only 6.6 %. The milk target price was raised by 9.3 %. The increases reflect the market situation to some extent. Exports of meat have been sluggish and stocks have tended to become too large.

Table 11. Target producer prices in 1980-82.

		1.9.1980	1.3.1981	1.9.1981	1.3.1982	1.9.1982
Rye ¹⁾	p/kg	161.00		187.00		207.00
Wheat ¹⁾	"	150.00		172.00		190.00
Feed barley ¹⁾	"	103.00		128.00		142.00
Feed oats ¹⁾	"	96.50		119.50		133.50
Milk ²⁾	p/l	152.60	160.60	171.90	182.90	188.90
Beef ³⁾	mk/kg	17.14	18.69	19.44	20.44	20.73
Pork	"	10.91	11.86	12.31	13.01	13.14
Eggs	"	7.25	7.85	8.20	8.75	8.88
Mutton ⁴⁾	"	20.00	21.50	22.30	23.40	23.80

1) Beginning August 1.

2) Additional price of milk:

Beginning September 1, 1980	15 p/l	
" September 1, 1981	15 p/l	up to 200,000 litres
" March 1, 1982	16 p/l	- " -

and in addition:

Beginning September 1, 1980	8.3 p/l	up to 30,000 litres
" March 1, 1981	9.8 p/l	- " -
" September 1, 1981	10.5 p/l	- " -

3) Production premium for beef:

	bulls 160-210kg mk/kg	bulls over 210kg mk/kg	heifers 130-160kg mk/kg	heifers over 160kg mk/kg	heifers over 210kg mk/kg
Beginning September 1, 1980	1.30	2.20		1.30	2.20
" March 1, 1981	1.30	2.20		2.20	
" September 1, 1981	1.50	2.50		2.50	
" March 1, 1982	1.90	2.90	1.00	2.90	

4) Production premium for mutton 2.20 mk/kg beginning September 1, 1980, 2.50 mk/kg beginning September 1, 1981, and 2.90 mk/kg beginning March 1, 1982.

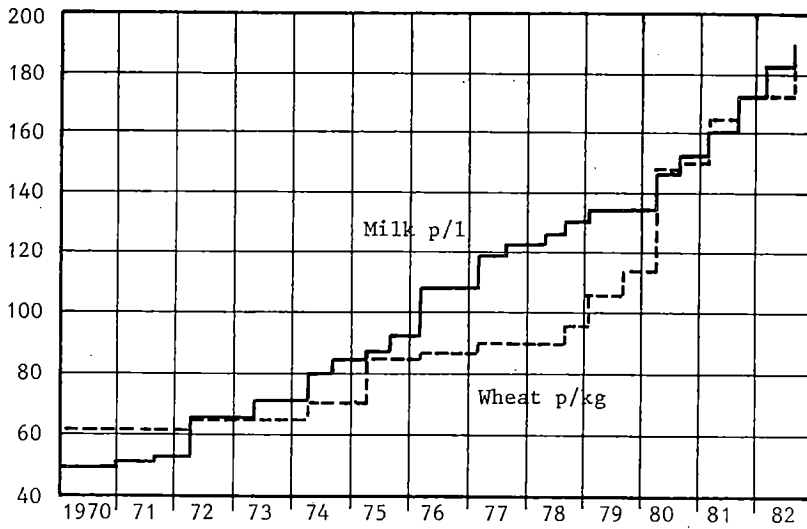
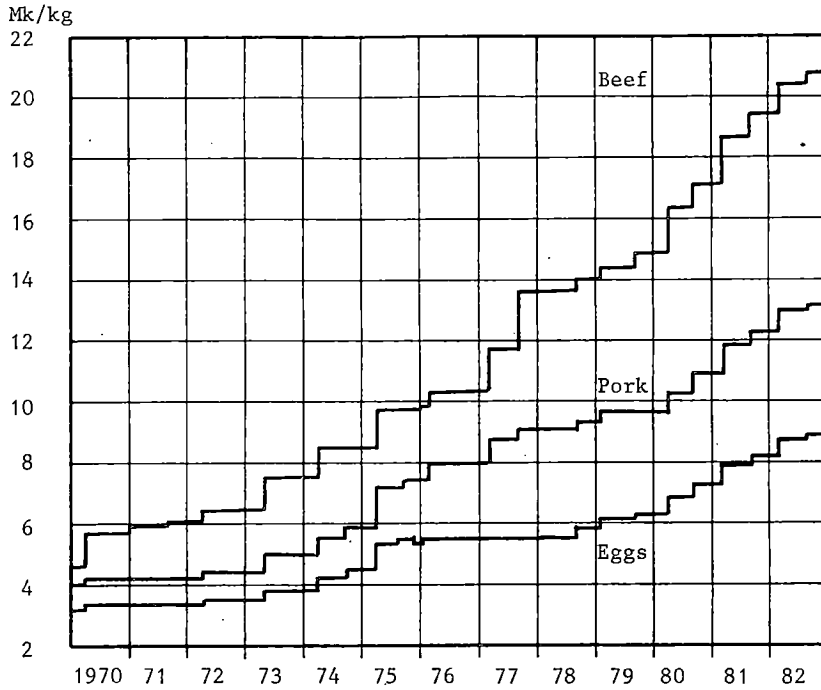


Figure 6. Trends in some target prices in 1970-82.

7. Incomes development

Estimates of farm income development made at the turn of the year have proved to be rather unreliable. Occasionally, they have been satisfactory, but the estimate for 1981 for example was, unfortunately, completely wrong. Farm income is obtained as the difference between two components - total revenue and total costs - and if then errors in them are complementary, the error in farm income is great.

Despite all this, a total calculation was again made for 1982, since it is of great interest. The total calculation is under continuous development and thus the figures for farm income have changed considerably from the previous ones. The corrections have so far been made back to 1975.

Farm income rose, according to this preliminary calculation, by 37.7 % in 1982. Explanations for the great increase are price development and crop damage compensation.

Changes in volumes occurred in the same direction. The volume of production rose by 4 % and that of farm inputs by 2 %. Producer prices rose by 14 % and farm input prices by 9 %, the latter corresponding to the rate of inflation. The rapid growth in producer prices was a result of the fact that producer prices rose about 1.4 % less than the target prices and that they rose considerably in the latter part of 1981. Thus, the price development on a calendar year basis differs from that used in the price decisions. On the whole, producer prices increase faster than prices of farm inputs when inflation is slowing down, because cost compensation is retrospective.

The total calculation depicts money transfers on a calendar year basis. Therefore, crop damage compensations from 1981 appear in 1982, when they were paid. Crop damage was felt in both 1981 and 1982, but it is difficult to divide the compensation between the two years.

Table 12. Farm income trends in 1975-82, mill. marks.

Year	Total revenue	Total costs	Farm income	Index
1975	8,091.2	4,991.9	3,099.3	100.0
1976	9,261.0	5,762.7	3,498.3	112.9
1977	9,967.0	6,231.0	3,736.0	120.5
1978	10,233.1	7,191.8	3,041.3	98.1
1979	11,100.6	8,185.4	2,914.8	94.0
1980	13,103.4	9,714.1	3,389.3	109.4
1981	14,641.4	11,242.9	3,398.5	109.7
1982 ^e	17,151.3	12,471.1	4,680.2	151.0

Premiums on bread grain cultivation (79.2 mill. mk) also raised income in 1982. The total calculation also includes premiums on changes in production line and milk bonus payments. They rose slightly in real terms in 1982.

The faster rise in producer prices than in farm inputs was the main reason for the improvement in incomes. When considering the percentage increase, it must be remembered that the result for 1981 was poor. Agriculture has now returned to the normal trend in development.

III AGRICULTURAL POLICY

8. A quiet year

1982 was rather quiet with regard to agricultural policy. Price negotiations were easier than normal because of the 2-year agreement, which included the increases in farm income. The determination of cost compensation is a routine task and requires no prolonged negotiations. The price review of agricultural products thus went more smoothly than earlier.

Because of the decrease in milk production, supply control did not greatly disturb the execution of agricultural policy. Marketing fees were lowered, which was a positive move. The problems concerning beef exports in summer were a popular topic in the news media.

Stimulation of the cultivation of bread grain has also occasionally been a central topic of discussion. The decrease in self-sufficiency in bread grain had made some people worried about Finland's security with regard to food supplies. Farmers have been persuaded to cultivate more wheat and rye with price increases and special fees. Profitability has improved and good results can now be expected.

The passing of the new prices legislation by parliament was something of a climax to the year from the point of view of agricultural legislation. The Act had been under preparation for many years and the old one had had to be renewed several times. Finally, in spring 1982, the government was able to reach a consensus of opinion on the contents of the new Act.

The new legislation has been well accepted by farmers. Its application may, however, prove to be difficult, even though two research groups are examining background information and follow-up systems. The Act mentions a rational farm, which may turn out to be difficult to interpret.

9. Supply control

Over-production was less of a problem than usual in 1982. Milk production decreased during the first part of the year, which also lowered the export costs paid by agriculture. The decline in pork exports also had the same effect. Marketing fees for milk and pork were abolished in March and the fertilizer tax was reduced from 11 to 6 p/kg. At the end of the year it was realized that the good yield had spoiled the optimistic view. Milk production was higher than forecast and marketing fees should have been higher than those actually gathered. Arrears were deferred to 1983.

Supply control methods remained unchanged or were further tightened. They concern only animal production, since bread grain production has not corresponded to domestic consumption for years. Actually, the question is not one of restricting production, but rather of steering it. Since the present acreage is considered to be sufficient, the structure of production should be changed a little. It must be mentioned that supply control measures also have goals other than simple restriction or steering. For example, the restrictions on establishment of large animal production farms are aimed at preventing the foundation of commercial farms.

9.1. Restrictions on production

The soil bank system was started in 1969. If the entire farm was taken out of production, compensation was paid to the farmer. No new agreements have been made since 1974 but old ones might have been renewed. There were 74,063 ha of land in the soil bank in summer 1982 and an additional 26,224 ha were afforested. The compensation was 225-380 mk/ha.

In recent times, it has been proposed that the soil bank system be abolished in order to get more land for grain production. The total acreage has fallen steadily (1 % in 1982), lowering the production potential. In particular, the cultivated area has decreased considerably since the beginning of the 1970s when active measures were started to curtail the growth in production (Figure 7). It is estimated

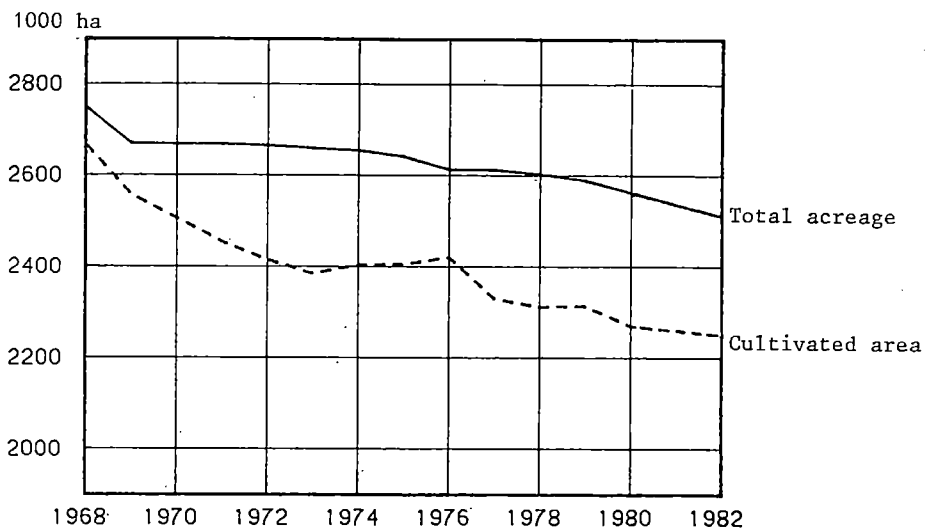


Figure 7. Total acreage and cultivated area in 1968-82.

that the decline in the cultivated area compensates for the increase in yields per hectare, and so plant production remains more or less stable. Large variations in yields, however, make this difficult to see.

A milk bonus system has been applied to restrict milk production. Milk producers are paid compensation if they agree to cut production by at least 1/4 for three years, the minimum reduction being 10,000 litres. The compensation for the reduction amounted to 50 p/l until August 31 and 65 p/l thereafter. This scheme has caused a decrease in dairy herds by about 14,000 head. In 1982 the system was no longer attractive, and only a few new contracts were made. The same can be seen in the case of other restrictive methods: potential subscribers to a method can be attracted quite easily when the method is first introduced.

To reduce egg production, producers were paid a special slaughtering fee of 20 mk/hen, the producer agreeing to stop egg production for 18 months. No pork, milk or beef production may be practised, either. Contracts were made for 300,000 hens at a time.

Hatchings have also been restricted. They were allowed to remain at the level of the previous year. Despite these measures, production grew by 3 % in 1982.

Supply control has been affected applying several laws which expired at the end of 1982. From the beginning of 1983, a new framework act has come into effect, allowing the application of both old and new methods. The national government will have the power to implement new systems.

9.2. Establishment of large animal production units

The establishment of new large animal production units has been regulated by law for some years. The original idea was to prevent commercial agriculture, in order to restrict farming to family farms. Little by little, the system has become a means of supply control, the effectiveness of which, however, has been considered weak.

A new act came into effect in 1982, making the conditions required for establishing a new farm even tougher. Permission from the Board of Agriculture is required if the production unit is to have over 300 pig places, 1000 hens, 30,000 chicken places, 20 dairy cows or 120 beef animals. In addition, permission from local officials is required for the establishment of a production unit of over 100 pig places or 500 hens. For permission to be granted, the quantity of feed produced at the farm itself must be at least 1/3 for pork and egg production and at least half for milk and beef production. The government has further tightened the conditions so that the establishment of units of over 30 dairy cows, 200 pig places and 1000 hens has been possible only in case of a generation shift.

It is very difficult to say how the system has prevented growth in production. An increase in farm size is still quite natural in Finnish agriculture and in many cases this happens below the officials limits. These farms certainly have an equally great effect on the growth of production as large farms which have received permission to increase production. For example, it has been estimated that over half of the increase in pork production is from new small farms. The system does,

however, have the important effect that it prevents large-scale production, based only on commercial feed. If feed imports forbidden, domestic feed production makes an upper limit for animal production.

9.3. Marketing fees

The production ceiling determined by the Farm Incomes Act was exceeded by 183 mill. litres for milk, 25 mill. kg for pork and 18 mill. kg for eggs. A fertilizer tax of 9 p/kg was collected from farmers between January 1 and March 31 and 6 p/kg thereafter. A marketing fee of 1 p/l was levied on milk production and 20 p/kg on pork production until February 28, 1982. Besides, an additional marketing fee was collected from the large pork and egg units. The total fees collected was 122 mill. marks. However, milk production was higher than forecast, and so a further 91 mill. marks in marketing fees should have been collected. This sum is carried forward to 1983, when marketing fees are 1 p/l for milk and 5 p/kg for pork. The fertilizer tax is 6 p/kg and a new 2 p/kg tax on commercial feed is being collected from farmers.

9.4. Agreements on changes in production lines

The 1977 act governing changes in production lines was aimed primarily at stopping production, but in 1979 it was amended to enable changes in the line of production from animal to other lines.

By the end of 1981, 7,761 agreements had been made, a consequence of which was that 37,700 dairy cows were removed from production. In 1982, about 1,800 new contracts were made.

Beef production is mainly tied to milk production. There are still only few pure beef cows. There is some need for beef exports at the moment, but in the long term production may fall below demand since the decline in the number of dairy cows also reduces the number of animals for slaughter. Milk-beef cross breeding is applied to foster beef production and for this purpose, a special fee of 850 mk/cow is paid to farmers who agree to keep at least two cows for the milk feeding of slaughter calves and not to sell calves or cows for milk production. In 1982 there were agreements covering about 8,300 cows.

10. New laws

10.1. Farm Incomes Act

The new Farm Incomes Act will be effective from the 1983/84 pricing year, which begins in March. It is valid for three years. Its predecessor was passed in 1977 for the period 1978/79 - 1981/82, but it was renewed for one year because no new act could be agreed upon. The "Pekkanen" solution also postponed the passing of a new law. The Farm Incomes Acts have seldom been applied independently of other factors. Agriculture is often tied to the collective agreements of the labour markets and this has required slight changes in the Farm Incomes Act.

The new act is basically like the earlier one. The State and the producers' organisations negotiate on increasing producer prices. The rise in costs is compensated twice a year, as earlier. Negotiations are based on a calculation of total agricultural costs so that it covers all products and inputs, even though the values of all items cannot be fully estimated. The cost calculation will be renewed when the new law is taken into effect. Farmers are compensated for the change in total costs by raising the gross return by the same amount.

The increase in the farm income is also negotiated. A new point in the law is that farmers are guaranteed a fair income level, meaning that their income level should be the same as in other sectors of the economy. The act states that the development of farm income should correspond to the development of wages of industrial workers. In order to accomplish this, several studies have been launched to study the present income situation and to construct a follow-up system applicable in the follow-up of income development in the different sectors. It is up to the negotiators to decide finally on the principles and applications of the law.

In order to steer and restrict production, the law includes production ceilings (Table 13) which deviate a little from earlier production ceilings. If the quantities are exceeded agriculture must export the excess amount at its own cost. Different kinds of production taxes and

Table 13. Production ceilings of the new Farm Incomes Act.

	1982 ¹	1983	1984	1985
Milk delivered to dairies, mill. l	2675	2790	2760	2730
Exports of beef mill. kg		14	12	12
Exports of pork - " -	13	18	16	14
Exports of eggs - " -	13	17	15	13

1) The old act

marketing fees are collected for this purpose (see chapter 9.3). Marketing fees are also collected from large pork and egg production units.

An essential change from the old act, with regard to production ceilings, is that there are no restrictions on grains. Thus it is possible to convert excess production in one line to grain production, for which no marketing fees have to be paid. The law contains provisions for steering production so that animal production does not exceed the ceilings.

Producer organisations consider the new law an improvement on the earlier one. In principle it promises farmers the same income as that of industrial workers. However, only time will tell whether this aim can be realized.

10.2. Grant scheme to encourage young farmers

September 15, 1982, saw the implementation of a decision by the national government concerning the payment of subsidies to farmers below the age of 35 years in some municipalities in development areas. The aim is to assist farmers wishing to begin cultivating land which they have inherited recently. This subsidy can be maximum of 50,000 mk, of which 6,000 mk can be used for general expenses, and the rest for machinery construction of living and production buildings (though not for pig or poultry units), land improvement, buying seed and fertilizer during the first cultivation period etc.

The purpose of this experiment is to ease the capital problems faced by young farmers when they inherit a farm whose investments have often been neglected. The need for capital is then at its highest. Nine million marks are available for this experiment, providing support for at least 180 young farmers.

10.3. Production premium for bread grain cultivation

In order to increase the production of bread grains, a special premium was paid for the cultivation of wheat and rye in 1982. The acreage under bread grains fell considerably in 1977 and since then wheat and rye have been imported nearly every year (Figure 8). Target prices have been raised a great deal during the last two years but even that has not been sufficient for the recovery of production. A target is to raise the acreage under wheat to 200,000 hectares and the acreage under rye to 60,000 ha. The premium was 400 mk/ha for wheat and 500 mk/ha for rye in 1982.

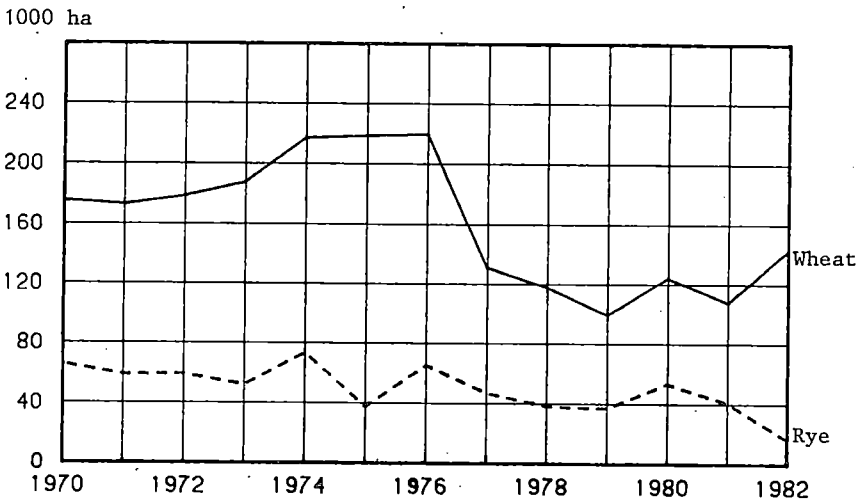


Figure 8. The cultivated area of rye and wheat in 1970-82.

10.4. Investment reserve for agriculture

Parliament passed an investment reserve act for agriculture which is effective from 1983. A farmer can make an investment reserve which is 20 % of the farm income, though, at least 8,000 mk and maximum 20,000 mk. This amount is deducted for taxation purposes but is taken into account later, when the investment is made. In addition, the farmer has to deposit half of the reserve in a bank. The reserve system means that the farmer can depreciate his assets before investment. It is considered that the system will improve the timing of investments; it has been claimed, for example, that farmers buy machinery only for taxation purposes in order to balance the economic result between different years.

11. Agricultural social policy

There are two sides to being a farmer: he is simultaneously a businessman and a production worker. He invests capital in his farm and gets (or at least he should get) a return on his investment, but, on the other hand, he and his family are the actual workers on the farm. In practice he is usually comparable to a production worker or he gets quite a low income from his capital. In spite of this, society has often considered the farmer a businessman and therefore his social benefits are much smaller than those of workers in other sectors of the economy. A farmer is entitled to a vacation of only 15 days and he has no fixed weekend, often working seven days a week. Social conditions within agriculture lag behind the other sectors in many other respects, too, even though some improvements are forthcoming.

11.1. Farmers' pensions

Farmers' pensions are based on law, and are comparable to the pensions in other sectors. The farmer makes his pension payments according to his income, and the state also pays part of the pension costs. The pension payments made by a farmer are not accounted for in the production costs and are not transferred to prices like the pension payments of other workers.

The farmer gets his pension at the age of 65, and its size is determined by the contributions he has made. He is also entitled to a disability pension.

11.2. Summer vacation

Farmers engaged in animal production are entitled to a summer vacation of 15 days. The local municipality hires a worker for that time. The costs of the system are paid mainly by the state but agriculture also contributes, thus lowering the farm income in price decision calculations. In spring 1982, this amounted to 12.5 milj. mk (including payments for help during illness).

11.3. Weekend experiment

Animal production is a continuous process, requiring labour every day. It is therefore difficult to organise free weekends, and payments for extra labour cause extra costs. In 1981, some municipalities began an experiment to organize free weekends for farmers. The state subsidises the experiment but the farmer has to pay some (80 mk/day) of the costs of the hired labour.

11.4. Farm help during illness

A farmer may receive outside help for the duration of a disability caused by illness or some other reason. It is paid for by the local authorities but is financed by the state. Agriculture also pays part of the cost. This is paid for by lowering the agricultural target prices by the amount paid by agriculture e.g. by 5 mill. marks in spring 1982. However, these payments are counted as costs in the price setting calculation, and so, target prices are raised accordingly.

11.5. Accident insurance

A new Accident Insurance Act for farmers came into effect on July 1, 1982. It compensates a farmer for the costs caused by accidents. Farmers pay half of the extra insurance (30 mill. marks in 1982), but this sum is counted as agricultural costs and was first taken into account in the spring 1982 price decision, i.e. agricultural prices were raised by that amount.

IV Summary

The economic situation in Finland further deteriorated in 1982. The growth of the gross domestic product was only 1 %, and forecasts for 1983 show no improvement. Exports decreased by 3 % over the previous year. Imports fell, too, and so the balance of trade was only slightly negative. Inflation has been slowing down (now about 9 % at the annual level), but the devaluation of the Finnish mark by 10.5 % in October will speed it up slightly in 1983. Recession has most effected unemployment, which rose to 6.5 % in 1982 and is still increasing.

Agricultural yields were good, in terms of both quantity and quality in 1982. The average crop yield was 2526 feed units per hectare, which is only a little below the record yield in 1976 (2532 f.u. per ha). Dry hay and silage yields remained below normal as a result of the cold weather in June, but grain yields were above normal. The cultivated area has diminished slightly in recent years and so the total yield, which was 5094 mill. f.u. can no longer increase.

There were only small changes in animal production. Milk production was still clearly lower during the first part of the year than in 1981, but the good yield resulted in a production increase, and so production for the whole year was about the same as in 1981. Pork production rose a little (from 179 mill. kg to 184 mill. kg), but beef production fell even more. Egg production increased by 2 mill. kg (to 82 mill. kg). The total volume of animal production was about the same as in 1981.

Agricultural price negotiations went quite smoothly, because the increase in farm income was already included in the two year agreement made in 1981 and the acceptance of the cost calculation never causes any great difficulties. Target prices were raised by about 5 % in spring and 3 % in autumn.

No definite assessment of the income development can be made at this point in time. According to a rough estimation, farm income rose about 38 %. The primary explanation for such a high increase is the

crop damage payments from summer 1981, which were paid in 1982 (434 mill. marks). In addition, farm income did not increase in 1981 and so the base line year for comparisons is low. The good yields have, of course, also raised the farm income.

A new Farm Incomes Act was passed by parliament in 1982. It resembles its predecessor, but there are also some changes. For example it promises farmers the same income as workers in other sectors of the economy. The production ceilings were raised, but agriculture must still pay marketing fees in 1983. The marketing fees for milk and pork were temporarily abolished during 1982 but they will be resumed in 1983. The fertilizer tax has been 6 p/kg since July 1.

The latter part of 1982 certainly returned the feeling of hope to agriculture after the crop damage in 1981. The yield was good and income development satisfactory. Cost prices have increased more slowly than producer prices. Agriculture, however, has little potential for increasing production, since production ceilings reduce all income increases if production is expanded.

Sources

Monthly Reviews of Agricultural Statistics. Finnish Board of Agriculture.
Bulletin of Statistics. Central Statistical Office in Finland.
Statistics from Agricultural Economics Research Institute.
Economic Review 1982, Finland. Economic Department, Ministry of Finance.
Suhdannekuva, syksy 1982. Pellervo's Economic Research Institute.
Maataloustuottaja, Monthly review of the Central Organisation of Agricultural Producers, 1982.
Kotieläintuotannon rakennemuutokset ja niiden ohjailu. Finnish Board of Agriculture, 1982.
Suomen säädöskokoelma.
Statistics from Research Institute of Pellervo Society.

Appendix 1. Some price indices.

	Wholesale price index	Consumer price index	Producer price index of agriculture
1970	100	100	100.0
1971	105	106	103.7
1972	114	114	115.0
1973	134	127	129.4
1974	167	150	150.2
1975	189	176	188.2
1976	211	201	213.6
1977	233	226	229.4
1978	245	243	242.5
1979	266	261	257.2
1980	309	291	288.2
1981	351	326	324.5
1982 ^e	377	356	370.0

Appendix 2. Cost price index in agriculture with subindices.

	Cost price index	Requisites	Machines and tools	Buildings
1970	100.0	100.0	100.0	100.0
1971	107.9	103.6	109.2	109.2
1972	116.9	107.6	120.2	123.6
1973	135.6	122.2	133.4	155.5
1974	167.9	154.6	162.7	201.4
1975	205.9	188.4	208.3	230.2
1976	238.4	255.3	231.2	255.4
1977	273.6	267.3	258.1	281.4
1978	285.4	273.8	282.2	294.9
1979	304.3	282.8	308.7	325.6
1980	341.7	318.0	341.2	372.1
1981	394.0	384.9	374.6	400.8
1982 ^e	427.0	422.6	403.3	424.5

Appendix 3. Some figures of the agriculture structure.

	Number of ¹⁾ 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	200	9.1
1981			85	200	8.9
1982 ^e			78	209	9.1

1) Over 1 hectare.

Appendix 4. 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 ^e	689.2	4508 (e)	1475.3	5291.5

Appendix 5. 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

Appendix 6. Agricultural gross return in current prices.

	1975	1976	1977	1978	1979	1980	1981
<u>Crop production</u>							
Rye	75.8	100.9	97.8	63.3	82.4	148.8	121.3
Wheat	343.3	463.4	402.4	178.4	173.0	310.9	345.8
Barley	277.2	353.1	536.3	455.2	461.7	572.5	644.1
Oats	155.6	235.5	244.5	177.5	200.6	308.1	350.9
Potatoes	111.2	147.9	115.4	88.2	122.3	216.5	198.8
Potatoes for processing	43.7	66.6	81.9	73.7	88.5	98.6	102.5
Sugar beets	147.9	148.2	140.6	206.8	199.2	286.3	253.5
Oil plants	34.5	37.0	61.1	86.3	94.1	166.7	182.1
Peas	6.2	10.7	15.2	9.9	10.3	10.3	20.1
Total	1195.4	1563.3	1695.2	1339.3	1432.1	2118.7	2219.1
<u>Garden production</u>							
Vegetables	173.6	171.9	171.9	210.2	205.7	261.8	352.0
Root crops	15.4	12.2	25.1	40.0	22.6	47.5	27.7
Fruits	6.1	41.1	27.2	30.3	42.0	40.3	53.8
Berries	36.7	48.7	47.5	60.0	66.9	71.0	86.2
Total	231.8	273.9	271.7	340.5	337.2	420.6	519.7
<u>Animal production</u>							
Milk	3467.5	4284.8	4460.2	4773.3	5176.4	5762.5	6119.2
Beef	1249.9	1300.7	1509.4	1548.1	1676.8	2007.8	2380.2
Veal	3.3	4.2	3.7	4.1	6.6	2.5	4.1
Pork	965.2	1074.4	1228.2	1400.4	1543.9	1711.0	2057.9
Mutton	13.0	13.9	17.3	15.6	17.1	19.6	23.9
Horse meat	14.4	11.6	12.6	11.6	10.0	11.4	12.8
Poultry	59.2	67.5	83.1	76.6	93.8	114.3	147.7
Wool	1.2	1.2	1.4	1.4	1.5	1.5	1.8
Eggs	421.1	475.0	462.0	440.8	480.7	562.7	661.4
Exports of animals	4.4	2.6	2.8	7.3	4.4	5.4	7.4
Total	6199.2	7235.9	7780.7	8279.2	9011.2	10198.7	11416.4
<u>Subsidies</u>							
Price subsidy determined by farm size	180.4	142.9	176.5	217.4	246.0	283.2	351.3
Subsidy determined by number of cows	10.5	15.5	17.2	16.8	36.8	40.5	42.6
Compensation for purchased fodder	10.4	18.0	19.8	22.4	25.4	27.4	34.3
Total	201.3	176.4	213.5	256.6	308.2	351.1	428.2
Compensation for crop damages	263.5	11.5	5.9	17.5	11.5	7.9	2.3
Others						6.4	55.7
Gross return total	8091.2	9261.0	9967.0	10233.1	11100.2	13103.4	14641.4
Index (1975=100)	100.0	114.5	123.2	126.5	137.2	161.9	181.0
Change %		+14.5	+7.6	+2.7	+8.5	+18.0	+11.7

Appendix 6, continued. Costs in current prices.

	1975	1976	1977	1978	1979	1980	1981
Fertilizers	742.6	802.0	810.6	975.6	1059.8	1232.3	1333.9
Lime	31.0	44.7	32.5	54.0	50.9	69.8	41.7
Feed concentrates	1022.4	1234.3	1220.5	1584.3	1854.4	2416.6	3097.5
Feed conserving chemicals	32.4	30.3	50.8	64.0	76.0	86.5	95.8
Pesticides	81.6	76.9	79.0	89.2	116.5	134.4	141.4
Equipment	46.8	56.1	54.9	57.8	66.3	77.8	85.8
Skimmed milk	35.6	36.8	32.9	27.1	20.6	20.7	20.5
Fuel and lubricants	239.4	296.2	331.3	365.8	480.1	609.8	758.4
Electricity	119.7	139.6	162.4	174.0	189.1	209.2	248.8
Purchased seeds	106.0	118.0	163.5	215.6	229.8	237.3	274.7
Hired labor	242.8	260.2	267.7	253.3	265.0	271.7	278.9
Social expenses	85.4	98.2	108.5	102.5	107.5	112.1	118.7
Machinery and equipment expenses	1095.6	1282.7	1490.3	1695.4	1956.2	2231.3	2530.5
Building expenses	535.8	580.5	623.2	659.5	721.8	830.2	900.7
Interest payment	191.2	231.6	268.8	299.3	346.4	448.9	464.0
Imports of animals	2.5	2.4	0.3	0.4	0.4	0.6	0.8
Overhead costs	381.1	472.2	533.8	574.0	644.6	724.9	850.8
Costs total	4991.9	5762.7	6231.0	7191.8	8185.4	9714.1	11242.9
Index (1975=100)	100.0	115.4	124.8	144.1	164.0	194.6	225.2
Change %	-	+15.4	+8.1	+15.4	+13.8	+18.7	+15.7
Gross return	8091.2	9261.0	9967.0	10233.1	11100.2	13103.4	14641.4
Costs	4991.9	5762.7	6231.0	7191.8	8185.4	9714.1	11242.9
Farm income	3099.3	3498.3	3736.0	3041.3	2914.8	3389.3	3398.5
Index (1975=100)	100.0	112.9	120.5	98.1	94.0	109.4	109.7
Change %	-	12.9	6.8	-18.6	-4.2	+16.3	+0.3

