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TUTKIMUSLAITOKSEN
TIEDONANTOJA N:o 86a

*THE AGRICULTURAL ECONOMICS
RESEARCH INSTITUTE, FINLAND
RESEARCH REPORTS, No. 86a*

FINNISH AGRICULTURE IN 1981

LAURI KETTUNEN

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ISBN 951-9199-89-6

Helsinki 1982, Government Printing Centre

Preface

The review of Finnish Agriculture in 1981 has been written following the pattern used in previous annual publications. It includes a review of agricultural production, price decisions, consumption, the development of farm income and agricultural policy. The statistical tables are mostly based on final figures up to November but some statistics are not ready until much later. Therefore, the figures presented are very preliminary and the farm income development figures, in particular, may change considerably later on due to current errors.

I wish to express my gratitude to Birgit Haggren, Helena Koivula and Merja Manninen for the preparation of this publication and to Seppo Hassinen and Lulu Siltanen for the collation and preparation of the statistics. I also thank the English Centre for checking the English translation.

This report is also published in Finnish in Research Reports No. 86 of the institute.

Helsinki, January 18, 1982

Lauri Kettunen

I Introduction

1. Economic development

Economic growth stopped altogether in Finland during the latter part of 1981. Due to the growth during the first part of the year, however, the gross national product is estimated to have increased by about one per cent over the previous year. The growth was sustained by the increase in exports while domestic demand remained almost constant. Investments also went up slightly during 1981. The present stagnation is expected to change into an upswing during the latter part of 1982.

In spite of the economic stagnation, the annual rate of inflation has been about 12 %. The aim of the two-year general wage agreements made in spring 1981 was to slow down the rise in prices to under 10 %. The wage agreements included an inflation clause according to which wages will be raised in February 1982 if prices rise by more than 6 per cent between March and December 1981. Compensation would equal the excess over this six per cent.

The growth in real income was quite small in 1981. However, the disposable income of households is estimated to have grown by about two per cent due to taxation reforms. The State taxation tables have been adjusted according to inflation for many years.

Due to the stagnation, unemployment has begun to rise. The average unemployment rate was about 5.2 % compared with 5.0 % in 1980. The average number of unemployed was 110,000 in 1981, and an increase of 20,000 is predicted for 1982. Employment declined in all branches except the metal industry. The dock yards in particular enjoyed full employment.

Foreign trade caused no problems last year. The value of exports grew more than imports, so the five billion mark deficit in the balance of trade in 1980 disappeared nearly totally in 1981. Exports to the Soviet Union increased particularly. Due to the general economic recession in the western countries, Finnish exports to them decreased in volume. The reason for the decline in imports was the domestic recession. Exchange rates were on the average stable last year.

Money markets were rather relaxed throughout 1981 because of the balanced foreign trade. The Bank of Finland even had to curtail the supply of money by reducing the maximum limits of central bank loans to the commercial banks. The yearly interest rates of daily credits were also raised slightly in August in order to prevent the money markets from becoming excessively relaxed.

The business situation in the forest sector, which is important to agriculture, was rather strained. Exports have clearly gone down, especially in the timber industry. Commercial fellings, however, remained at rather a high level. They were about 7 % higher in 1980-81 than during the previous season, and the target is to keep them constant during the 1981-82 cutting season.

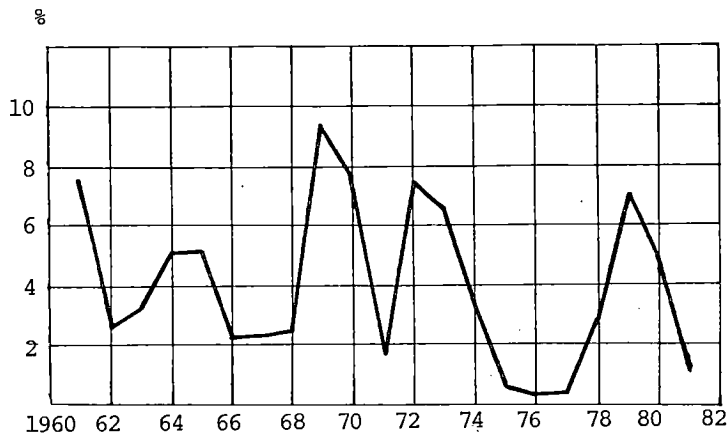


Figure 1. The growth rate of the volume of the gross national product.

II PRODUCTION, PRICES AND FARM INCOME

2. Plant production

Agriculture experienced serious crop damage in summer 1981. The total yield was only 4,000 million feed units, while normal yield would have been about 5,000 million feed units. There are many reasons for this poor crop. The winter ice destroyed grass and winter crops, of which a great part had to be ploughed under. Spring was late and sowing started one week later than normal. In addition, the beginning of the summer was dry, so that sprouting was slow. From mid-June to mid-July the weather was about normal, though rather cold in northern Finland, but after that excessive rain spoiled the yield. The rain in July and August was about twice as heavy as normal. Fortunately it was slightly drier in September, so that the crops could be harvested from the fields, which later became too wet to bear the harvesters. However, about 62,000 hectares could not be harvested at all.

The 20 million marks provided by the present crop damage law do not cover all the losses suffered. According to the Board of Agriculture total damage amounted to 810 million marks. The law puts the farmers' own risk at 20 %. Against this background the government decided to pay 440 million marks as compensation for crop damage to farms. In addition, the farmers may obtain State-supported loans at a four per cent interest rate. The total loan is 450 million marks for all of agriculture. Furthermore, the repayment time for the 1978 crop damage loans was prolonged by two years.

The yield was also poor in quality. Only about 192 million kg of the total rye and wheat yield, 299 million kg, is good enough for bread grain.

The total yield (3,958.1 million feed units) was 20 % below normal. Excluding straw, it dropped to only 1,925 f.u. per hectare from the harvest area, the lowest figure since 1969. The value predicted from trends for 1981 would have been about 2,400 f.u. per hectare.

Table 1. Yields of the main crops in 1980 and 1981.

	Area 1000 ha	1980		Area harvested 1000 ha	1981	
		Yield 100 kg/ha	Total mill.kg		Yield 100 kg/ha	Total mill.kg
Winter wheat	27.4	32.5	89.1	21.3	18.3	32.0
Spring wheat	96.9	27.6	267.6	90.1	22.5	203.0
Rye	53.3	23.2	123.6	40.7	15.7	63.9
Barley	533.4	28.8	1533.6	570.0	19.0	1080.1
Oats	447.8	28.1	1258.1	434.1	23.2	1007.5
Potatoes	40.9	180.0	736.1	36.9	129.5	477.8
Sugar beet	31.7	268.3	850.5	31.7	21.5	680.5
Hay	477.8	38.3	1830.7	449.5	37.3	1675.4
Silage	233.6	179.0	4180.8	234.2	164.9	3861.5
Oil seeds	55.3	15.8	87.3	55.5	12.4	69.0
Other crops	68.3			63.7		
Total	2066.4	2492 ¹⁾	5060.9 ²⁾	2023.9	1925 ¹⁾	3957.1 ²⁾
Pasture	203.3			202.2		
Fallow	102.3			67.5		
Soil bank	98.0			85.8		
Other land	92.7			98.4		
Total Acreage	2562.7			2477.8		

1) f.u./ha without straw

2) million f.u. without straw

All yields per hectare were clearly below the predicted value or the yield in 1980, which was slightly better than normal. The yields of hay and silage and of oats were closest to normal but even those were at least 10 per cent below the predicted value. Rye and barley gave the worst harvests. The improvement in Finnish self-sufficiency in bread grains is causing the agricultural policy-makers great problems. In spite of increasing the producer price and much debate 1982 is also likely to cause disappointment. The acreage under rye in autumn 1981 was only 16,800 hectares, so we will also have to import rye in the crop year 1982-83. Winter wheat was sown on 12,800 hectares. Due to the low seed stocks it is quite possible that the spring wheat area will also be small in summer 1982.

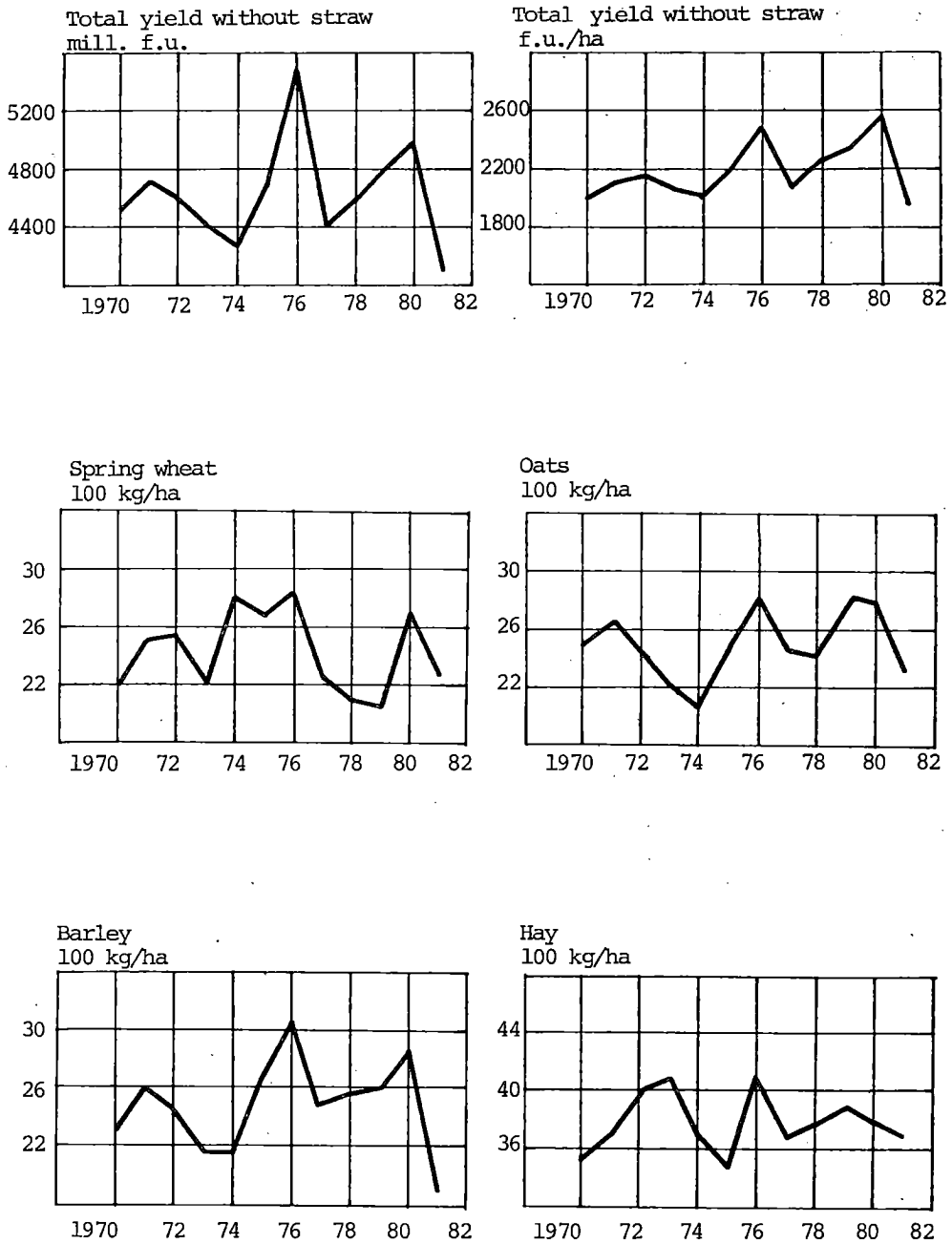


Figure 2. Total yield and the per hectare yields of wheat, oats, barley and hay in 1970-81.

Table 2. Quantities of domestic crops marketed in 1976-81,
mill. kg.

	1976	1977	1978	1979	1980	1981 ^e
Rye	96	94	57	60	90	64
Wheat	469	341	97	108	208	193
Feed wheat	66	136	113	59	5	39
Oats	483	723	615	588	592	521
Barley	365	374	261	273	347	322

The yield of feed grain totalled 2,115.8 million kg in 1981, which is 710 million kg less than in the previous year. Also, about 106.7 million kg of bread grain goes as feed, though the feed import requirements will still be 500-600 million kg, unless animal production declines considerably in the crop year 1981-82.

3. Animal production

Good and bad crop yields are clearly reflected in milk production. During the first part of the year, average yields per cow were high and total production was two to three per cent higher than during the previous year. During the latter part of the year, milk production was 7-8 % per cent below that in 1980, which was a result of the smaller number of dairy cows and lower average yield. The poor quality of feed thus has a very clear effect on production. The target of Finnish production policy has been to

Table 3. Animal production in 1977-81.

	1977	1978	1979	1980	1981 ^e
Milk, mill. litres	3130	3125	3141	3125	3082
Beef, mill. kg	106	106	110	114	122
Pork, " "	140	154	164	169	179
Eggs, " "	85	76	76	79	81
Poultry, " "	13	12	14	15	17
Other meat, mill. kg	2	2	2	2	2

e) preliminary estimate

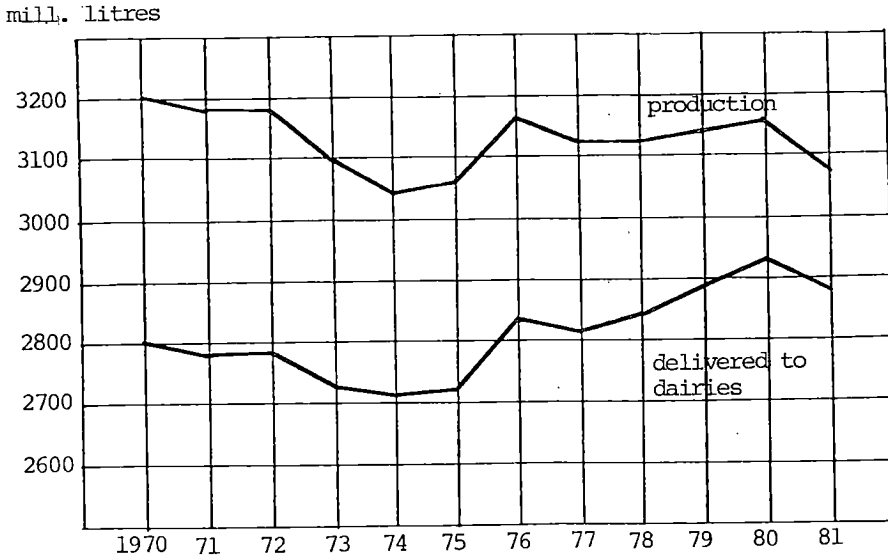


Figure 3. Milk production and the quantity of milk delivered to dairies in 1970-81.

curtail milk production. However, the fall may have been too rapid. Part of the decline in production may, however, be temporary. In 1982 production is expected to be about three per cent lower than in 1981.

The number of milk producers further declined rapidly, by about 7,000 last year. The majority of the farms which stopped producing milk are small, so the average size of herds has risen rather rapidly in recent years. This development is expected to continue during the next few years.

Pork production went up by 6 per cent, to 179 million kg in 1981. The increase in production was much more rapid than that forecast. This is an indication of the biased production structure in which feed production has been expanded at the expense of bread grain. Not even the good crop of 1980 was enough for animal production: about 130 million kg of feed grain had to be imported in 1980/81.

- Pork production is not expected to increase further in 1982.

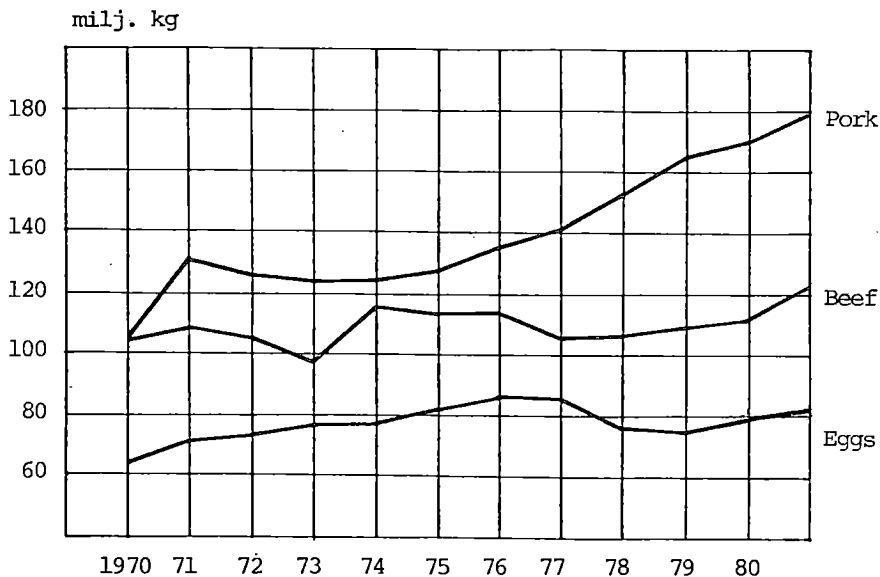


Figure 4. Production of beef, pork and eggs in 1970 -81.

Egg production increased slightly in 1981 in spite of slaughtering and the restrictions on hatchings. It seems that production is tending to stay at the present level or even to increase slightly in spite of the many restrictive measures taken.

Beef production rose to 121 million kg, or by 7 per cent, in 1981. The average carcass weights are still growing and dairy cows have been slaughtered more than normal due to the various measures taken to curtail milk production. In 1982 beef production is expected to decline to 113 million kg.

Table 3 does not include reindeer or moose meat. Moose meat in particular disturbs the meat markets to some extent - about 56,000 moose were shot in 1981, yielding 7 million kg of meat. Reindeer meat production is about 1.5 million kg per year.

Table 4. Consumption of milk products in 1975-81, kg per capita.

	Milk	Butter	Cheese
1975	292.8	13.3	6.1
1976	289.9	12.7	6.7
1977	248.8	12.2	6.2
1978	281.1	11.9	6.2
1979	278.0	12.5	6.8
1980	275.1	11.7	7.2
1981 ^e	266	12.3	7.5

4. Consumption and foreign trade

Consumption of agricultural products remained at about the same level as the previous year. The only exceptions were cheese, the consumption of which clearly went up, and butter, the consumption of which also increased slightly. The consumption of liquid milk has declined a little. Because of the statistical errors caused by storage and timing of exports, the changes also include small errors which should be taken into account when making comparisons.

During the first part of 1981, the consumption of beef and pork was clearly below the previous year, but during the latter part consumption recovered to give a total consumption in 1981 of about the same as during the previous year. Beef consumption is not expected to increase in the future, but pork consumption is forecast to go on rising by about 1 kg per capita. In 1981 pork consumption equalled the long-term forecast.

Table 5. Consumption of meat and eggs in 1975-81, 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	22.0	27.4	2.7	10.9
1978	21.7	28.3	2.5	11.6
1979	22.9	29.7	2.9	11.6
1980	22.3	30.6	3.2	11.8
1981 ^e	22	31	3	12

The consumption of eggs has remained quite stable for a long time. Likewise, the consumption of poultry meat is rather constant, though increasing slightly.

About 425 million kg of bread grains were imported in 1981, a large proportion of this during the autumn in order to meet the demand caused by the crop damage in summer 1981. Neither was the supply of feed grains in 1980/81 sufficient, and 130 million kg were imported. Furthermore, 200 million kilograms of concentrated feeds were imported. Part of this was for mink feeding.

With the exception of milk, animal production increased in 1981 and so exports also grew considerably (Table 6). Pork exports in particular have gone up rapidly. Eggs and butter were also exported in larger quantities than earlier, whereas exports of cheese and milk powder remained at the level of the previous year. It must be noted that the world market prices of milk products rose considerably last year. For example, the export price of butter was 10.30 mk/kg in August 1981, compared with only 5.50 mk/kg in June 1980. However, the decline in stocks and the large purchases of butter and milk powder by the Soviet Union have raised prices since then. They are nevertheless not expected to stay at this high level in future.

Table 6. Exports of some agricultural products in 1975-81, mill. kg.

	Butter	Cheese	Milk powder	Pork	Eggs
1975	11.9	19.9	20.1	-	28.1
1976	21.2	28.6	22.0	8.9	34.3
1977	15.6	32.8	29.1	8.9	33.8
1978	14.9	36.1	27.4	17.6	22.2
1979	17.4	40.3	28.0	20.0	21.0
1980	9.8	40.3	30.3	20.9	22.3
1981 ^e	14	40	28	39	28

Table 7. The value of exports and imports (Brussels Nomenclature 1-24) in 1975-81, million marks.

	Exports	Imports total	coffee and tea	fruit	drinks and tobacco
1975	719.8	2 472.3	368.5	341.4	184.9
1976	921.4	2 332.4	692.3	366.0	155.7
1977	1 303.3	2 899.9	1 012.9	404.1	166.0
1978	1 127.3	3 107.2	904.4	447.1	226.9
1979	1 284.2	3 679.9	932.7	533.9	226.8
1980	1 669.9	4 598.1	1 097.1	638.0	255.6
1981 ¹⁾	2 261.7	3 595.4	662.9	541.4	278.9

1) January-October

The value of agricultural product exports rose considerably last year, largely as a result of the higher prices of milk products. Exports also grew quantitatively due to the increased exports of beef and beef products.

Imports of agricultural products have always exceeded exports, and continued to do so in 1981. Coffee, tea and fruits form the majority of imports and no change is likely in the future. Fish is also imported to some extent, but otherwise the import of agricultural products for food is not necessary. Under normal conditions Finnish agriculture is able to produce even more basic food than is needed for domestic consumption.

5. Agricultural income decisions

The producer prices of agricultural products were raised twice in 1981. Once again the negotiations were different from what the farm income act stipulates, though the spirit of the law was followed almost exactly. However, agriculture had to adjust its price arrangements to conform with the general wage agreement.

Concern over the stagnation in the economy in 1981 and 1982 caused the central labour organisations to consider a wage agreement which would, on the one hand, be as anti-inflationary

as possible but, on the other hand, would stimulate the economy and would not worsen our international competitiveness. The negotiations started as early as the end of 1980, and a two-year wage and salary rise proposal was presented to all the labour organisations at the beginning of 1981. This proposal included agriculture. The final agreement was reached at the end of February. Not all parties concurred, even though the general line was maintained in almost all the agreements.

This time agriculture was the first to accept the agreement. Usually agriculture waits for the settlements reached by all the other sectors so that it can set its requirements properly. The new agreement is probably satisfactory, because it was accepted without any great difficulty.

The agreement covers two years and includes fixed incomes plus normal cost compensations twice a year.

	Cost compensation mill. mk	Increase in farm income mill. mk	Total increase mill. mk
March 1, 1981	636.2	288.0	924.2
Sept. 1, 1981		182.0	
March 1, 1982		224.0	
Sept. 1, 1982		202.0	

The increases in farm income, which is the most difficult part of the negotiations, have been decided for 1982, so that only the calculation of cost compensation is needed in the coming negotiations. This, in turn, has been quite easy during recent years, as have price increases by product.

The increase also includes an index clause: if the cost of living index (taking into account the changes in terms of trade) increases by over 6 per cent between March and December 1981 and by more than 7 per cent between December 1981 and November 1982, wages will be raised accordingly. According to the present estimates the first threshold was exceeded by about 0.6 per cent.

5.1. Spring price decision

Cost calculations have to be made on the basis of the average inputs during the three preceedive calendar years. Since the calculations had to be made earlier than normal (in January 1981) the quantities used in the previous negotiations were also used on this occasion. The cost calculation was, however, corrected under the final price settlement to meet the requirements of the law.

Table 8. Cost calculation, spring 1981.

	Price level in autumn 1980 million marks	Price level in in spring 1981 million marks
Gross return		
Target price products	9,867.5	9,867.5
Other products	854.6	1,008.2
After payments	387.6	387.6
Price support	<u>1,356.2</u>	<u>1,356.2</u>
Total	12,465.9	12,619.5
Return to target prices	<u>-17.2</u>	
Total return	12,448.7	12,619.5
Costs	7,827.3	8,470.6
Farm income	4,621.4	4,148.9
Change in farm income		-472.5
Excess in target prices (0.1 %)		<u>+9.9</u>
Change		-462.6

The change in weights was expected to increase costs by 42.0 million mk, which was taken into account in the final decision. Similarly, the rise in the price of mixed feed on 31.1.1981 was included in the cost calculation. Therefore the cost compensation for the first phase totalled 562.6 million mk. This deviates from the cost increase proper, which was 743.3 million mk, or about 9.0 per cent, due to the increase in prices of other products, and due to the excess target prices and the return on them.

The negotiations on the increase in farm income started on the basis of the general wage agreement. Other sectors were offered 65 pennies per hour from the beginning of March 1981, or about a 3 per cent increase. In recent years farmers have struggled hard for a "penny line" and have even succeeded in obtaining it. In 1980 a special committee was set up to make a study on labour input in agriculture, and the calculations of this committee were already available for the spring negotiations. Agriculture did not obtain a complete "penny line" solution, but the increase can be described as a mixture, the "penny per hour line" accounting for about 2/3 and the "per cent line" for 1/3. However, the first part, the increase of 288 million marks in March 1981, followed the "penny line" closely, though in the later parts the "penny per hour line" represents 60 %. The basis of the calculation was a labour input of 490 million hours, which was decreased slightly in the later settlements. In this way the increase in the agricultural productivity is lowering the need to raise producer prices.

The consumer price subsidies were lowered slightly, and so producer prices were raised by 48.7 million mk. Vacation compensation is partly paid by agriculture, and therefore the prices were further raised by 25.5 million mk. The summer vacation was lengthened by one day. The total was made up as follows:

Rise in costs, etc.	562.0	million mk
Subsidies	48.7	"
Summer vacation costs	25.5	"
Increase in farm income	288.0	"
Total	924.2	million mk

The total increase was divided as follows:

target prices	738.7	million mk
price policy support	85.0	"
milk price supplement	30.0	"
summer vacation costs	25.5	"
	924.2	million mk

The target producer prices were raised by about 8.5 per cent. The last task of the negotiations is to divide the total sum between the different products. For that purpose, production cost calculations for different products have been available for some years. These are made using farm models with fixed quantities. There are three different sizes for each line of production but only the middle one is included in Table 9. The size of the farm has had little effect on the increase in costs; the difference has been between 0.4 and 3.8 per cent since 1976. The price decision does not necessarily follow this cost calculation, and the market situation also has to be taken into account.

The target prices of bread grains were raised by 15-16 per cent or more than on average. The reason for this was obviously the shortage of rye and wheat supply. The target prices of barley and oats were raised by the same amount in order to avoid too large a margin between bread and feed grains. It meant a 19 per cent increase for feed prices, which naturally increases the cost pressure in agriculture. The target price of milk was, however, raised by only 5 per cent, since milk production has not fallen irrespective of different restrictions.

It is easy to be wise after the event and ask whether the grain price policy has been correct. Should the price of bread grain have been raised more in order to encourage wheat and rye production? We revert to this problem later on.

Table 9. The trend in production costs in different production lines, 1976 - 81, 1976 IV = 100.0.

	1977 IV	1978 IV	1979 IV	1980 IV	1981 II
Milk, 16 cows	111	120	131	148	158
Beef, 60 animals	119	125	137	157	164
Pork, 150 pigs	112	113	120	134	143
Eggs, 300 hens	114	114	116	131	141
Mutton, 100 ewes	112	119	130	147	158
Feed grain, 40 ha	111	119	130	148	159
Bread grain, 40 ha	110	118	131	149	160

Table 10. Target producer prices in 1980 and 1981.

		1.4.1980	1.9.1980	1.3.1981	1.9.1981
Rye ¹⁾	p/kg	159.00	161.00	177.00	187.00
Wheat ¹⁾	"	148.00	150.00	164.00	172.00
Feed barley ¹⁾	"	101.00	103.00	123.00	128.00
Feed oats ¹⁾	"	94.50	96.50	114.50	119.50
Milk ²⁾	p/l	146.60	152.60	160.60	171.90
Beef ³⁾	mk/kg	16.40	17.14	18.69	19.44
Pork	"	10.31	10.91	11.86	12.31
Eggs	"	6.85	7.25	7.85	8.20
Mutton ⁴⁾	"	19.10	20.00	21.50	22.30

1) Beginning August 1.

2) Additional price 15 p/l, plus 7.5 p/l up to 30,000 litres beginning April 1, 1980, 8.3 p/l beginning September 1, 1980 and 9.8 p/l beginning March 1, 1981. Additional price 15 p/l up to 200,000 litres beginning September 1, 1981 and 10.5 p/l up to 30,000.

3) 2.20 mk/kg for bull meat when carcass weight over 210 kg, beginning April 1, 1980, 2.50 mk/kg beginning September 1, 1981; 1.30 mk/kg for carcass weight over 160 kg beginning April 1, 1980 and 1.50 mk/kg beginning September 1, 1981. 2.20 mk/kg for heifers over 210 kg beginning April 1, 1980 and 2.50 mk/kg beginning September 1, 1981; for carcass weight over 160 kg 1.30 mk/kg beginning April 1, 1980, 2.20 mk/kg beginning March 1, 1981 and 2.50 mk/kg beginning September 1, 1981.

4) Production premium for mutton over 12 kg 2.20 mk/kg beginning April 1, 1981 and 2.50 mk/kg beginning September 1, 1981.

5.2. Autumn price decision

Since in autumn only the rise in costs is compensated for, the negotiations were rather simple. This time, though, they also concerned the increase in farm income, though this had been agreed upon in the spring solution. The Price Council of Agriculture had no major problems in approving the cost calculation.

The rise in costs (by fixed quantities) was 558.7 million mk. In autumn the growth in after payments is also taken into account. This time it was 35.2 million mk. The difference between these two figures, 523.5 million mk, gives the autumn cost compensation. As the spring calculation included an increase in farm income of 180.0 million mk, the price rise totalled 705.5 million mk; 585.5 million mk of this went into target prices and 120 million mk into price policy support. Target prices were raised by 5.6 % in autumn.

Table 11. Cost calculation, autumn 1981, million marks.

	Price level in spring 1981	Price level in in autumn 1980
Gross return		
Target price products	10,749.9	10,749.9
Other products	1,056.3	1,056.3
After payments	389.7	424.9
Price support	<u>1,471.2</u>	<u>1,471.2</u>
Total	13,667.1	13,702.3
Costs		
Accessories	5,111.1	5,625.8
Wages	444.9	464.9
Machines and implements	2,293.9	2,310.2
Buildings	865.0	872.7
Interests	<u>456.2</u>	<u>456.2</u>
Total	9,171.1	9,729.8
Farm income	4,496.0	3,972.5
Change		-523.5

All the target prices were raised, though the goal has been to make final agreements on the grain prices in spring, before the sowing season, in order to help farmers make their production decisions. The autumn grain price increase was therefore a kind of compensation to the farmers for a bad crop, though it may encourage grain production in summer 1982.

The two-stage price of milk was changed in the autumn decision. The supplement on milk beginning 1.3.1981 was 24.9 pennies per litre up to 30,000 litres per year and 15p/l over 30,000 litres. After the autumn decision, the supplement is 25.6 p/l up to 30,000 litres and 15 p/l up to 200,000 litres. No supplement is paid over 200,000 litres. It can be estimated that herds of less than 5-6 cows are entitled to the first level and those of less than 40 cows to the second. For large herds, the autumn solution actually brought lower producer prices when production exceeded 420,000 litres. Small farms, producing less than 30,000 litres, got an increase of 11.75 p/l. Figure 5 illustrates the average producer price of milk (in relation to production).

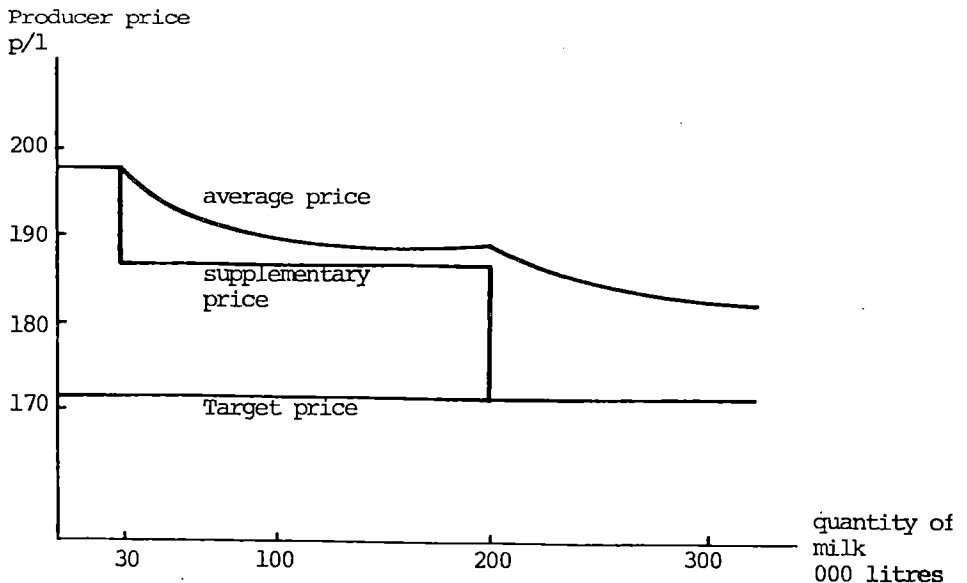


Figure 5. Average producer price of milk.

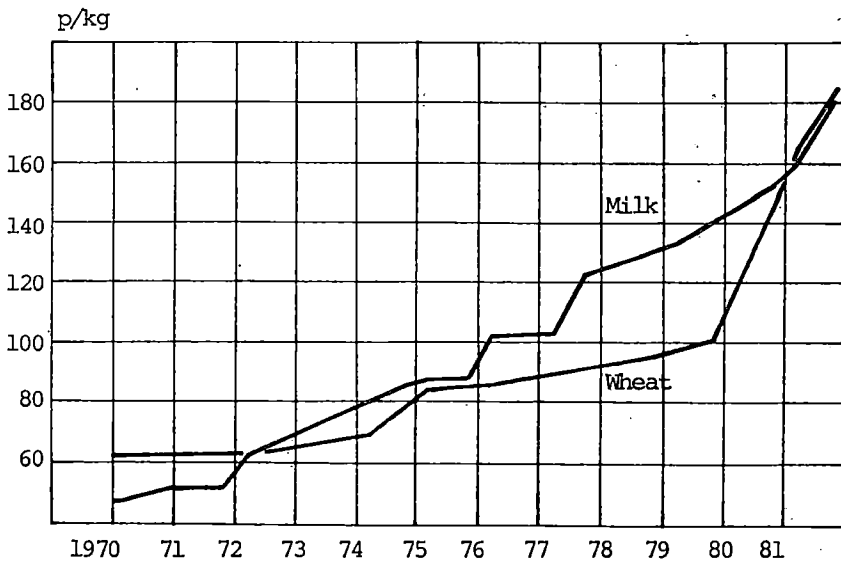
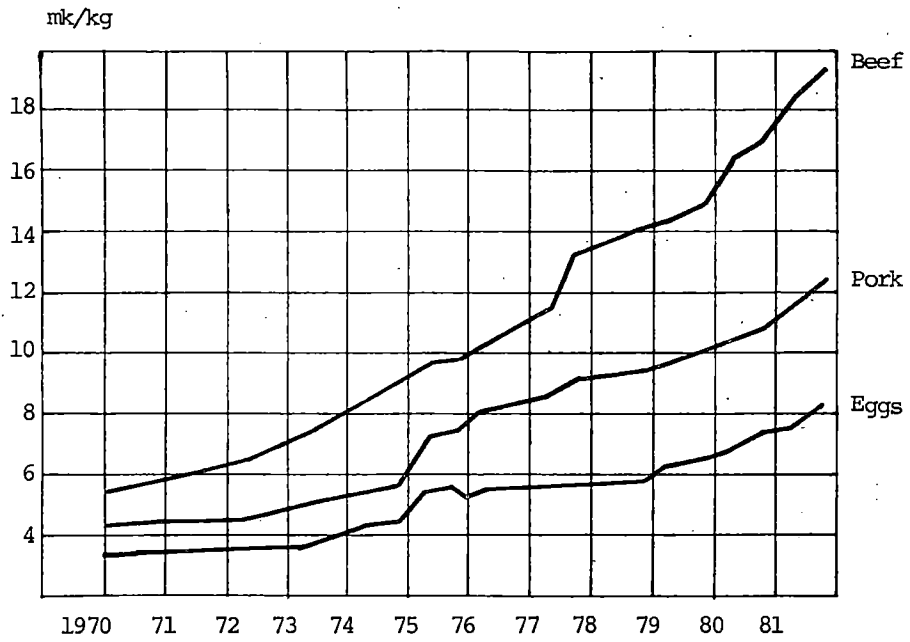


Figure 6. Trends in some target prices in 1970-81.

The target prices and price policy support were raised by a total of 1,556.1 million mk (12.7 per cent). The rate of inflation has been about the same. Input prices, however, have risen slightly more, i.e. by 14.3 %. Farm income was raised by only 10.2 % (=6.2+4.0) during the year. A rise in productivity would increase this sum further, but the bad crop did not allow this last year.

6. Income development

It is still too early to make any reliable estimates of farm income development. In particular, the statistics involving costs are very preliminary. The estimates on production quantities are more accurate at this stage, though they, too, may still need correction. Wet weather prolonged harvesting operations, making their costs well above normal. The work proceeded slowly, more workers than usual had to be hired and the grain drying expenses increased considerably over a normal situation. Unfortunately, information about these cost items is scarce and even the final calculations may include a wide margin of error.

After the good yield in 1980, the prospects for a moderate income development were high. Yields in animal production rose, apart from milk. After the steep decline at the end of 1981, milk production for the whole year fell about three per cent below the corresponding figure for 1980. The increase in pork, beef and egg production, however, turned the volume of all animal production into a two per cent growth rate. Plant production fell by about the same amount, and so the volume of total production remained at the same level as in the previous year.

The use of purchased feed increased by five per cent by volume. On the other hand, the use of fertilizers decreased. The estimates on the use of other inputs are still very preliminary, and may include errors, but it is quite evident that the volume of inputs increased by about 1 per cent.

Table 12. Farm income trends in 1975 - 81, million mk.

Year	Total revenue	Total costs	Farm income	Index
1975	8 089.6	5 042.2	3 047.4	100.0
1976	9 179.6	5 817.6	3 362.0	110.3
1977	9 921.1	6 287.7	3 633.4	119.2
1978	10 206.7	7 239.5	2 967.2	97.4
1979	11 179.5	8 238.0	2 941.5	96.5
1980	13 038.2	9 908.3	3 129.9	102.7
1981 ^e	14 151.0	11 545.4	2 605.6	85.5

The producer price index rose by 12 per cent and the price index of farm inputs by 16 per cent at the annual level. Taking into account the changes in the prices and volumes of production and inputs, it can be roughly estimated that farm income fell by 17 per cent in 1981.

III AGRICULTURAL POLICY

7. General

Uncertainty and great fluctuations in agriculture became pronounced in discussions on agricultural policy last year. At the beginning of the year agriculture experienced rapid growth: production of milk, pork and beef rose. However, this made marketing fees higher than anticipated, causing problems both for the producers and for the government. Production restrictions were under continuous discussion at that time.

With the harvest season approaching, the atmosphere changed very much. The predictions were of a serious crop failure, a report which was later confirmed by official harvest estimates. Compensation for crop damage became the main topic. Financial support was arranged by the government after it reached agreement on the amount of compensation. However, producers were annoyed by the slow process for making the actual payments.

Two particularly important issues still await a solution: the price act and the long-term agricultural policy programme. They both seemed to have got buried at the committee level. Extension of the preparation time has been requested for both several times. The price law committee has very divided opinions as to the details, and no agreement had been reached by the end of the year. The long-term agricultural policy programme is still unprepared, too. The sub-committee for food policy completed its work, but its proposals were received with indifference. The sub-committee for agricultural policy has the main responsibility for the preparation of the long-term programme but it had to request more time for its work.

The most essential question in our agricultural policy is how the income level of farmers could be raised under the prevailing restrictions on production. Production ceilings and marketing fees efficiently prevent farmers from making higher incomes from higher

output. It is quite understandable that the producers wish to remove the production ceilings, but on the other hand it is also clear that the tax payers (consumers) want to avoid higher export subsidies. The conflict is difficult to reconcile.

There are two more topics worth mentioning here: the declining rural population and an adequate supply of agricultural products. These two matters are partly related.

Apart from a couple of recent years, when the population stayed stable, the number of farmers (employed labour force) has declined yearly by about 20,000. However, this labour force is expected to decrease further because the age structure of the farming population is biased, i.e. a great number of farmers are approaching retirement. This trend is undesirable, because, for instance, rural areas are becoming depopulated. The agricultural policy-makers seem helpless in the face of the problem. The subject is discussed but no efficient measures are taken.

One of the main targets of agricultural policy is to safeguard an adequate food supply for the whole population under all circumstances. Rather than earlier approaches in terms of self-sufficiency, food supply capacity has become a central topic among agricultural economists. The availability and stocks of inputs are included in the concept 'food supply capacity', whereas self-sufficiency is usually concerned only with the final products. Imports of energy, fertilizers and herbicides have seriously imbalanced our food supply capacity, a situation which needs to be changed. The matter has been under discussion both publicly and among agricultural policy-makers and researchers.

8. Supply control

An agricultural survey cannot be made without touching upon supply control and restriction measures. The problem has been mentioned before: exports of agricultural products grew last year. Constant attempts have been made to curtail over-production but with-

out success. Total production has not, however, grown, but the structure of production has become continuously biased. Animal production has a tendency to increase while self-sufficiency in bread grains has dropped below 100 %. In addition, more grain stores have been built but there is no domestic grain to fill them. Even feed grain was imported in winter 1980-81, though the yield in summer 1980 was at least normal.

If the acreage of bread grains were expanded by 100,000 hectares and the acreage of feed grains used for milk production decreased accordingly, the marketing responsibility of agriculture could be eliminated almost completely. Milk production would drop by 300 million litres to below the production ceiling. There are some problems connected with this change, but it is clear that attainment of the production target set in agricultural policy would mean the elimination of excess production and the growth of farm income while marketing fees could be abolished.

Pork production has clearly increased over the target, as has egg production. The 220 million mk in marketing fees (2 p/l for milk and 20 p/kg for pork) have not controlled production in the way hoped for. One reason for this unsuccessful result is the method of collecting them. Half is collected as a fertilizer tax (11 p/kg) and the other half as milk and pork marketing fees. Thus they have been scattered among several small fees and farmers do not recognize their actual impact.

The marketing fee does not fall on the excess products in the proper way, because fertilizer tax is also paid by grain growers, even though they do not produce an excess. Milk and egg producers pay less, while pork producers pay relatively more, if marketing fees and fertilizer taxes are taken into account.

Supply control is practised in many ways. These controls are presented briefly in the following. The author has reviewed them in greater detail in previous annual surveys.

8.1. Restrictions on production capacity

The soil bank system is still valid. In summer 1981, 85,000 hectares were out of production and 25,000 hectares were afforested.

No compensation was paid for fallowing in 1981, because it was considered as lowering the cultivation of bread grains. In 1980 the total acreage under fallow was 85,000 hectares: in 1981 the figure was only 45,000 ha. This decrease was apparently one reason why total active acreage increased by 20,000 ha in 1981.

Taking land out of production is the most effective way of curtailing production as long as grain and feed are not imported. The decline in animals serves the same purpose, though the corresponding quantity of feed then becomes available for other purposes. A system to stop milk production for a certain period was designed to reduce the number of dairy cows. Milk producers are paid a compensation of 50 p/l for the lower amount of milk if they agree to cut production by at least 1/4 for three years, the minimum reduction being 10.000 litres. The contracts made correspond to about 38 million litres of milk.

In order to reduce egg production, producers were paid a special slaughtering fee of 20 mk/hen if the producer agreed to reduce production for 18 months. The system was available for enterprises of over 100 hens. About 600,000 hens were slaughtered in 1981. Hatchings have been restricted further so that the number of hatchings for 1981 could be not more than the number of chickens in 1978 minus 5 per cent.

8.2. The establishment of large production units

The restrictions on the establishment of large animal production units continued as before. Official permission from the Board of Agriculture is required for establishing a unit with more than 300 pig places, more than 1,000 hens or over 20 dairy cows or 120 beef cows. The establishment of new firms was not allowed in 1981.

In order to further control the establishment of new production units, at the end of the year parliament passed a law requiring permission from local officials for the establishment of new units of 100 pig or 500 hen places. The limit for milk production was lowered to 20 cows in summer 1981. For permission to be granted, the quantity of feed produced at the farm must be at least 1/3 for pork and egg production and at least half for milk and beef production.

8.3. Production and export ceilings

The 1981 production and export ceilings, according to the Farm Income Act were as follows:

the quantity of milk received by dairies	2,675 million litres
exports of pork	13 million kg
exports of eggs	12 million kg
exports of bread grains	100 million kg
exports of feed grains	200 million kg

According to one estimate the milk ceiling was exceeded by 200 million litres, the pork ceiling by 27 million kg, and the egg export limit by 16 million kg. With all arrangements taken into account, the estimated agricultural export costs were 240 million mk. This was covered by a fertilizer tax of 11 p/kg, and a milk marketing fee of 1 p/l during January and February, 1.85 p/l during March and April and 2 p/l during the rest of the year. The marketing fee for pork was 20 p/kg, and an extra marketing fee was collected from the pork units whose revenues exceeded 600,000 mk. The total income from fertilizer tax and marketing fees is estimated to have been 212 million mk in 1981. An additional 28 million mk must therefore be collected in 1982.

8.4. Agreements on changes in production lines

In order to reduce animal production, a special law governing changes in production was passed in 1979, according to which the farmer can get compensation from the State if he stops animal

production. This law is still effective, and about 2,500 agreements were made by December in 1981, removing about 13,000 dairy cows from production.

In order to secure beef production a special extra fee is available. The farmer can obtain compensation of 750 mk/cow if he agrees to keep at least two cows for the milk feeding of slaughter calves and not to sell calves or cows for milk production. In 1981 such agreements concerned about 8,200 cows.

9. Other legislation

9.1. Tax on protein feed

In order to curtail animal production a law concerning the tax on protein feed was passed in 1981. The tax is levied on feed which includes over 35 % raw protein. The law does not affect milk powder feed, concentrated feed mix or feeds for fur animals.

9.2. Weekend experiment

In 1981, a special weekend leave experiment was started in some municipalities in which the farmer has the opportunity to get an average of one free day a week. The farmer pays part of the salary of his substitute, the rest being subsidized by the State.

The summer vacation for farmers with animals was 14 days in 1981 and this was lengthened by one day beginning 1982.

9.3. Stabilization of farm loans

The year under review saw the passing of a law on stabilization of farm loans. Its purpose is to ease the loan situation for certain farmers by granting stabilization loans for repaying the bank loans obtained between 1.1.1976 and 31.10.1980.

10. Price policy support and acreage payments

Price policy support and acreage payments primarily serve attempts to equalize income distribution, either by region or by farm size class. They are part of the farm income system and are paid out of the budget, though they concern income distribution within agriculture. The pricing decision as a whole is divided between an increase in target prices and a use in price policy support.

Both price policy support and acreage payments form a large system requiring a great deal of legislation and organization. No real changes were made in this system in 1981 so the review presented below is based on the legislation in previous years. The amount of compensation changes yearly and the boundaries of the regions are checked occasionally.

10.1. Regional support

Regional support for milk is paid stepwise: it is highest in northernmost Lapland (51 p/l in 1981), decreasing gradually to zero compensation in southern Finland. Additional support is also paid in the archipelago.

Milk producers also receive regional support according to the number of dairy cows. In addition, a special sum is paid in development areas for up to 7 dairy cows. In the northernmost areas this compensation was $525 + 525 = 1,050$ mk per cow in 1981.

The support for meat production is paid stepwise in the same way as above. They went up to 6.00 mk/kg for beef, 7.30 mk/kg for lamb and 0.65 mk/kg for pork in northernmost Finland. A special additional fee of 14 p/kg is also paid for rye production.

In addition to price support, the farmers in developing areas receive feed at reduced prices. This assistance is highest in northernmost Finland, 45 % of feed costs with a maximum of 5,850 mk/farm.

In order to equalize transportation costs the State pays a special transportation support to dairies. This support is not included in the normal income calculated in the farm income act.

10.2. Acreage compensations

In addition to the regional price policy support, another significant way of equalizing income distribution is the acreage compensation paid according to the size of the farm. This is also stepwise according to the region. The basis for paying this compensation is the size of the production unit, which is determined according to the acreage and number of animals. The compensation is highest for 7 hectares (7 production units) and for 7 animal production units (7 dairy cows or 14 young beef cows or 35 pigs). As the acreage increases the compensation diminishes, the limit being 18 ha in southern Finland and 30 ha in the northernmost part of the country.

No acreage compensation is paid to a farmer whose taxable income exceeds the maximum limit determined by the law (42,500 mk in 1979). Acreage compensation is paid according to region, supplemented by as much as 50 %. The compensation for one production unit was 376 mk in 1981.

The acreage compensation is tax-free.

IV SUMMARY

Economic development was slow in Finland in 1981. The growth of the whole economy was only one per cent and there was an upswing in unemployment. However, inflation remained at a rather high level: the consumer price index rose by about 12 per cent over 1980, though economic policy has been eased by the stable balance of trade. Money markets have also been rather relaxed.

Agriculture experienced severe crop damage in summer 1981. The total yield was only about 4,000 f.u. (20 per cent lower than normal). According to the official estimate, crop damage amounted to 810 million marks, but the total loss was much larger when the quality losses are taken into account. The yield of rye and wheat fit for bread was only about 192 million kg. Import requirements are estimated at 380 million kg. In order to retain animal production at the present level, 600-700 million kg of feed grain must be imported.

The effects of the poor crop yield can also be seen in milk production, which was 2-5 per cent higher in the first part of the year, but dropped by 8-9 per cent during the latter part of the year compared with the corresponding level in 1980. The total milk yield in 1981 was about 3 per cent lower than in the previous year, though beef and pork production rose by 6-7 per cent. Egg production grew slightly, too.

Income development was poor because of the crop failure. The volumes of total production and farm inputs remained constant but the input prices rose faster than the producer prices (16 and 12 per cent, respectively). The farm income fell according to the preliminary estimate by about 17 per cent. 440 million mk are available for crop damage compensation. However, this will not be paid until 1982. It is not yet clear whether agriculture can be awarded the crop damage compensation as an external subsidy or whether part of it will be paid as internal compensation. The final decision will be made during the farm income negotiations in 1982.

Farm income decisions and supply control measures have been central themes in agricultural policy discussions. The growth in animal production during the first part of the year forced a rise in the milk marketing fee to two pennies per litre. In addition, a new system was introduced to curtail milk production according to which milk producers are paid a compensation of 50 p/l for reducing production. In order to curtail egg production, a slaughtering scheme was started.

As earlier, the supply control measures have included the soil bank system and the system of changing the production line. However, fallowing was no longer applied in 1981. The establishment of new large production units has been restricted by law, and this was further strengthened by raising the maximum limit of milk production units to 20 dairy cows. The system will become stricter at the beginning of 1982.

A new farm act has been under preparation for a long time but no agreement was reached during 1981. There are two essential problems to be solved: the goals for developing agricultural income, and the production restrictions. The latter is perhaps the more difficult of the two. The total agricultural production as such would no longer be a problem since the active acreage has decreased all the time. The problem is in the biased production structure. Animal production has grown too large compared with both consumption and plant production. There is not enough bread grain, and feed grain was imported even after the good yield in 1980. A more balanced structure of production would eliminate many agricultural policy problems.

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 ^e	352	326	323.6

Appendix 2. Cost price index in agriculture with
subindices.

	Cost price index	Requisities	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 ^e	395.7	384.3	374.2	401.1

Appendix 3. Some figures of the agricultural structure.

	1)Number of farms, 1000 pcs	1)Average size of farms, hectares	Number of milk suppliers 1000 pcs	Employed persons 1000 persons	in agriculture % 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			91	200	9.1
1981e			84	203	10.0

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	4500 (e)	1467.1	5200.2

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

