### Communication 395

## **AGRICULTURAL ECONOMIC REPORT 1988**

SUMMARY



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Agricultural Economics Research Institute LEI
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#### ABSTRACT

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This Communication offers a summarized overview of the contents of the Agricultural Economics Report (196 p.), that is published in the Dutch language as part of the series "Periodical Reports".

A general survey is given of the economic situation of Dutch agriculture and horticulture, mainly for the years 1986, 1987 and 1987/88. Among other subjects, attention is paid to the Common Agricultural Policy, the agricultural production in the world, in the EG and especially in the Netherlands, to some aspects of the structure of Dutch agriculture and to the relation between agriculture and the natural environment. Furthermore, the report deals with the development of rentability, incomes, investments and the financial situation of agricultural and horticultural holdings in the Netherlands.

Agriculture/Agricultural Incomes/Agricultural Policy/Agricultural Production/Farm Structure/Netherlands

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### **Preface**

The Agricultural Economic Report is an annual publication, offering a global survey of the economic situation of Dutch agriculture and horticulture. The report contains a summary in English, which is published separately for the first time this year. The complete report is only available in Dutch.

The report is based on data and contributions stemming from nearly all divisions of the Institute. The coördination and editorship of the report is in the hands of the General Economics and Statistics Division. The final draft of this issue of the report was closed in the course of june 1988.

The Managing-director,

The Hague, September 1988

#### General economic developments

Economic growth in the OECD countries in 1987 was at three percent approximately the same as the year before. The exchange rates within the EMS were stable too; as a result of the smaller differences in inflation between the EG member-states no readjustment of currency rates proved necessary. The rather pronounced fall in the dollar rate evidently could not disturb the peace within the EMS. The same applied to the strong growth in world trade, the volume of which increased by some four percent, just as in 1986, whereas the prices in dollars fell somewhat.

Above all as a result of the lag in investments in business and industry, the growth of the Dutch economy in 1987 was considerably less than in 1986. The surplus on the balance of payments also declined. Because of the lower dollar rate both import and export prices fell, the latter more strongly than the former. The drop in import prices formed a major explanation of the absence of inflation and of part of the strong growth in the volume of private spending. In 1987 the budget deficit is estimated to have risen above the 1985 level. However, a slight decline is expected for 1988.

#### Agriculture in the world

Since the growth of animal production by more than two percent was accompanied by an approximately equal decline in vegetable production, the total volume of agricultural production in the world barely increased in 1987. World cereal production decreased by some four percent. Agricultural production in the developing countries increased, but food production per head there fell for the first time since 1983, above all in Africa.

As against approximately the same production there was a clearly larger volume of world agricultural trade. This was among other things the result of a greater demand for a number of tropical products. There was also a revival of American agricultural exports. Within GATT, opinions differ about the ways to improve the course of world trade, varying from a complete abolition of all forms of support and restriction of trade to at most a reduction in the difference between world market prices and internal prices. It is expected that a compromise will be found in a gradual reduction of export support and — even more cautious—ly — of import restrictions.

Such a compromise may perhaps be inspired by the lack of certainty about the consequences of complete liberalization. Thus, model studies indicate that world market prices will rise in the medium term, but technical developments may make that price increase only temporary. And insofar as these studies offer something to go by, it emerges that the benefits and burdens of a liberalized world trade will be rather unevenly distributed. For instance, in the EC consumers would be better off and agricultural producers worse off.

### Agriculture in the European Community

In addition to international problems, internal political tensions above all have led to adjustments in EC agricultural policy. In February 1988, the government leaders decided to expand the financial resources of the Community, to monitor budgetary limits more strictly, to strengthen the policy for weaker regions and to apply stabilizers to a number of products subject to market regulation. By means of the last measure, which may be the most drastic one for EC agriculture, exceeding a production threshold is "punished" by a proportional or otherwise reduction in the institutional prices. It remains to be seen to what extent these policy adjustments lead to a "more restrictive" price policy and whether the agreed stricter budget discipline can be achieved.

The development of incomes in EC agriculture will doubtless continue to influence agricultural policy. It can be observed that farm incomes in the eighties have lagged behind those in the rest of the economy. And although the real level of support prices in 1987/88, unlike the two previous seasons, has not fallen, the actual support has nevertheless been reduced by adjustments to intervention policy. It is expected that the same will apply to 1988/89, at least in view of the price proposals by the Commission, which amount to a complete freeze on agricultural prices 1).

Despite the restrictive nature of the price decisions, expenditure on market and price policy in 1986 and 1987 did not fall, and for 1988 a considerable increase has even been budgeted. A major cause of this is the high expenditure that was necessary to dispose of a large part of the stocks of butter and skimmed milk powder. In addition, increases in the production of oilseeds and protein-rich crops made a strong appeal to the budget.

Recently the set of instruments for directly curbing the growth of productive capacity, after the milk quota scheme that entered into effect in 1984, was extended by the set-aside scheme. Whereas the superlevy has made a considerable contribution to the expenditure on dairy policy having meanwhile become somewhat controllable, which is why the scheme will continue to exist for some time yet, it must be doubted whether letting farmland lie fallow with the aid of premiums will be equally effective for control of vegetable production. Interest in the scheme will greatly depend on the trend of prices: the lower they are, the more attractive the set-aside premiums will be.

The price decisions taken when this text went to press are incidentally somewhat less restrictive than the Commission's proposals.

#### Structural developments in Dutch agriculture

Despite the difficulties with which a number of sectors within agriculture and horticulture have to contend, in recent years the number of farms and horticultural holdings has declined less strongly than around 1980. Just as in the past two years, the decline of 1.5% in 1987 was influenced by the sharp drop in the number of dairy farms (-4%). The possibility of selling the milk quota formed a major incentive in this.

According to the May census of 1987 the number of persons employed in agriculture hardly changed in respect of 1986, so that the labour force per holding has increased somewhat. The number of family members helping on the farm has, however, fallen, and thus the proportion of workers in paid employment has risen. This "outside" labour force is to be found on only one out of every ten farms, and includes an increasing number of women.

Data on the number of industrial accidents show that the agricultural sector may not be regarded as the healthiest one. Thus the accident percentage in agriculture and horticulture in both 1984 and 1985 was about double the national average. It is also characteristic that in 1987 the agricultural working population included a total of nearly 30,000 persons unable for work. True, this number is comparatively less than the national average, but nevertheless 10% more than in 1983. Of them, 60% are self-employed farmers, and mainly older persons: 80% of the farm heads receiving working disablement benefit are older than fifty. About one in four farm heads older than fifty receives benefit of this kind.

The strong expansion in the area under green-maize that took place in past years was not repeated in 1987, while the area of grassland again contracted. This time arable land increased in area, above all that for pulse crops.

The trade in milk quota - 5% of the national quota has changed hands by now - has led in recent years to an increase in transactions in land. The prices of land fell somewhat in 1987, but the quota prices were again higher: according to the Central Bureau of Statistics the average price of this rose from f 1.20 per litre in 1985 to f 1.90 in the first half of 1987. The larger farms buy more quota than the smaller ones: the farms with more than 85 cows acquired more than 40% of the quota purchased, while these farms comprise less than 10% of the total number of dairy farms. On average per farm the quota purchase cost 110,000 guilders. The ability to acquire extra milk quota has increasingly become a limiting factor for dairy farmers wishing to expand. In general entrepreneurs on the larger and/or more extensive farms turn out to be able to offer the most for extra milk quota.

The contribution of the agricultural sector to environmental pollution turns out greater than was formerly assumed. Thus it has been established that approximately a quarter of the total precipitation of acidifying substances originates from agri-

culture. The natural environment will therefore have to be involved more than before in farm management. In recent years the principal contribution to reduction of the burden on the environment has come not so much from the manure legislation as from the superlevy in particular. Whereas the quota scheme has led to a clear decrease of the dairy herd, the manure legislation has so far not been able to prevent a considerable expansion of the pig population - up to and into 1987. The size of the manure surplus in 1987 is estimated at 16 million tons, but when the manure norms are considerably tightened in 1991 they will on estimate work out at two to three million tons more. It is the question whether this additional surplus can be avoided by changes in farm management and in the housing systems and whether, should that not be the case, the processing of manure will prove financially feasible.

#### Production and sales

In 1987 domestic spending on food and drink decreased. Above all the food and beverage industry based on vegetable products was confronted with a smaller domestic demand.

The production value of Dutch agriculture and horticulture in 1987 was over 6% less than in 1986. This was a result of both a smaller production volume and lower prices realized (table 1). The most pronounced drops in volume occurred in arable farming,

Table 1 Development of volume and prices of agricultural and horticultural production

	Value mln. Hfl.									
•		volume				price				
		1985	1986	1987 (est.)	1985	1986	1987 (est.)			
Arable products	3320	-5.8	14.6	-10.0	-4.2	-1.7	-12.5			
Milk	9885	-1.3	2.4	-8.0	0.6	-0.9	0.5			
Meat and eggs	13650	2.7	4.4	3.0	0.5	-10.9	-7.5			
Vegetables	3055	6.3	10.1	-0.5	-3.2	-11.9	13.0			
Fruit	510	-27.9	30.4	-9.0	17.5	-15.4	13.5			
Cut flowers	2525	6.3	5.6	3.0	-0.8	-4.7	1.5			
Other horticult.prod.	2725	3.8	7.7	5.5	6.4	0.4	-1.5			
Total	35670	1.1	6.0	-4.0	0.4	-6.0	-2.5			

in particular for wheat. Prices fell for all arable products, with the exception of sugarbeet. In the animal sector too the production value declined, though less strongly than in arable farming. The milk production was approx. 8% less than in 1986, but this time the price realized was just on the plus side. The smaller milk production was reflected in a substantial drop in

production of among others the intervention products butter and skimmed milk powder, whereas the volume of cheese and whole milk powder still increased. Moreover, the contracting dairy herd led to a smaller production volume of veal. For the rest meat production increased. The fall in the price of meat and eggs came about above all by lower prices for pigmeat (-15%) and for poultry meat (-8.5%). Only for eggs the farmgate price was considerably higher in 1987 than in 1986.

Unlike the preceding year, in 1987 the prices made in horticulture were in general considerably higher. Striking exceptions to this picture were the prices for pears (-36%) and tulips (-10.5%). The price increases were above all the result of falls in production in respect of 1986 or - in floriculture - of a less strong growth of production. In the case of vegetables under glass the volume of production of above all cucumbers was a good deal smaller and in the case of fruit the apple crop turned out to be considerably less. However, in both cases there was on the other hand a strong increase in the price realized, which also applied to a limited extent to tree nursery products.

Imports and exports of agricultural products and foodstuffs

Imports of agricultural products and foodstuffs in 1987 were on average over 10% cheaper than in 1986 (table 2). The import prices of coffee (-40%) and soya and oil cakes (-15%) fell to a striking extent, but lower prices could also be noted for most of the other imported agricultural products. However, against this there was a somewhat greater increase in volume, so that the import value nevertheless rose (1%). A major cause of this increase in volume was the more than 50% greater import of milk and dairy products, of which a large part consisted of (ex-)intervention products. The share of the EC in import value has grown in recent years, namely from less than half in 1984 to 60% in 1987.

On the export side increases in volume and falls in prices also occurred in 1987, but this time the former were just exceeded by the latter. Agricultural export value thus decreased in 1987 by just short of one percent. In the case of exports to the EC member-states - more than three quarters of the total - in general somewhat less pronounced fluctuations occurred than in the case of those to non-member countries, although here too the net result was a minor fall in value. The export value of potatoes displayed a striking increase, as the result of a greater volume and - within the EC - higher prices. Comparable developments occurred in exports of eggs and horticultural produce.

Table 2 Imports and exports of agricultural products in 1987

	Value 1000 mln.Hfl.		Changes in % in respect of previous						
			W O L		E C				
	world		volume	-		-			
Imports									
Total	31.1	18.6	11.7	-10.5	15.0	-6.5			
arable products	8.8	5.6	2.4	-8.2	3.4	-4.1			
horticultural prod.	2.6	1.5	8.6	-6.5	5.5	-3.9			
animal products	6.0	5.7	39.4	-5.9	41.7	-6.2			
other agric. prod.	13.7	5.7	9.3	-14.2	9.2	-9.6			
Exports									
Total	48.3	37.7	6.9	-7.2	3.4	-4.2			
arable_products	7.5	5.3	11.5	-6.6	8.4	-2.5			
horticultural prod.	10.7	8.9	5.1	0.1	5.4	0.3			
animal products	16.9	13.4	7.7	-10.0	0.1	-4.8			
other agric. prod.	13.2	10.1	4.7	-9.3	3.8	-7.9			

The above resulted in an agricultural trade surplus in 1987 of 17,200 million guilders, being little less than in 1986. Because of the increase in the share of the EC in the import value and an almost unchanged share in the export value, the trade balance with the EC member-states has strongly declined (-12%). Incidentally, these developments pale into insignificance compared to the trend of the (commodity) trade balance of the economy as a whole (i.e. including the agricultural sector), which in 1987 decreased by over three quarters, ending up at three thousand million guilders.

Results of the agricultural sector and the horticulture under glass sector

The total return value of agriculture (excluding horticulture) in 1986/87 was over 3.5% lower than in the previous year (table 3). Whereas in a number of branches of farming, above all pig- and poultry keeping and arable farming, obvious increases in volume occurred, the prices realized displayed all along the line a sometimes substantial decrease. Against this, costs fell more strongly. Above all through the lower prices of feeding-stuffs and fertilizers, in combination with approximately the same volume, the value of the non-factor costs fell by over 5%. The factor costs decreased somewhat in volume only. The value added ultimately changed hardly at all, as did the returns/cost ratio.

As a result again of lower prices and now also through smaller quantities, in 1987/88 the production value of agricul-

Table 3 Returns and costs of the agricultural sector (excl. horticulture)

	Value	mln.	Afl.	Changes in % in respect of previous yea						
				v o 1	une	price				
	1985/86	86/B7 (p)	87/88 (est.)	86/87 (p)	87/88 (est.)	86/87 (p)	87/88 (est.)			
Returns Non-factor costs	26950 20000	25950 18950	23820 17940		-4.0 -1.0	-6.5 -5.0	-4.5 -4.0			
Net value added	6950	7000	5880	12.0	-10.5	-10.0	-6.0			
Factor costs 1) Total costs	11690 31690	11500 30450	11550 29490		-2.5 -1.5	0.0 -3.0	3.0 ~1.5			

<sup>1)</sup> Calculated on a tenancy basis.

ture declined on estimate by more than two thousand million guilders. Otherwise than in 1986/87, this could be compensated for to the extent of only fifty percent by the fall in non-factor costs by a thousand million guilders. Feedingstuffs and fertilizers were again cheaper in a little changed volume. Factor costs barely changed in value. As a result of the relatively pronounced decline in the return value, the net value added in 1987/88 was therefore over a thousand million guilders lower than in the previous year. The percentage of cover, which represents the ratio between factor costs and net value added, thus fell from approx. 60% in the previous year to about 50%.

The profit-and-loss account of the horticulture under glass sector (table 4) displays a different picture from that of agriculture. In both 1986 and 1987 the value added increased compared to the year before, in both years because of higher returns and

Table 4 Returns and costs of the horticulture under glass sector

		Value			Changes in % in respect of previous y							
		mln. Hfl.		v o	lun	n e	F	rio	e			
	1985 1)	1986		1987 (est)	1985	1986	1987 (est)	1985	1986	1987 (est)		
Returns Non-factor costs	5790 3995	5865 3755	5865 3930	6300 3910	7.0 9.0	8.0 5.0	4.5 4.0		-6.0 -10.5	3.0 -4.5		
Net value added	1795	2110	1935	2390	1.0	15.0	5.0	-1.0	3.0	17.5		
Factor costs	2195	2235	2300	2340	3.0	0.0	1.0	2.5	1.5	1.0		
Total costs	6190	5990	6230	6250	7.0	3.D	3.5	2.0	-6.0	-3.0		

<sup>1)</sup> Incl. effect IAA (Investment Account Act), comparable with past years.

<sup>2)</sup> Excl. effect IAA.

lower or equal costs. In 1987 the growth of the volume lagged somewhat behind that of previous years, but against this there was a relatively strong price increase. In both years total costs decreased above all through the sharp drop in energy prices.

### Operating results

Operating results reflect in general the developments at sector level outlined above. On the average farm the entrepreneur's income rose in 1986/87 by approx. 15%. For 1987/88, on the other hand, a considerable decline in the results is estimated at farm level. Thus the above-mentioned income figure would reduce by no less than a third. However, these figures conceal major differences per farm type.

In dairy farming an increase in entrepreneur's income of a few percent is estimated for 1987/88 (table 5), whereas the entrepreneurs on intensive livestock farms are, according to estimates, confronted with a sharp decline. After a revival in 1986/87 the results of the arable farms have reached an all-time low, as demonstrated by the estimated negative entrepreneur's income on the larger farms.

Income developments in intensive livestockkeeping and in arable farming are in sharp contrast with those in horticulture under glass, in which in general entrepreneurs' incomes have been maintained at a relatively high level, or even have risen. As regards the other horticultural holdings, in 1986 the results of

Table 5 Average entrepeneurs income on farms and on some groups of horticultural holdings (in 1000 guilders)

	1985/86	1986/87	1986/87	1987/88
	1)	1)	2)	(r)
Dairy farms				
- larger farms	55.4	64.2	58.1	61.3
- smaller farms	19.4	25.2	22.7	27.0
Intensive livestock farms				
- larger farms	72.2	46.5	40.1	8.0
- smaller farms	29.2	29.5	26.6	10.0
Arable farms				
- larger farms	22.6	62.0	57.8	- 4.7
- smaller farms	11.0	36.1	33.5	1.0
Horticultural holdings				
with mainly:				
- vegetables under glass	32.8		47.4	98.7
- cut flowers under glass	36.5		58.6	84.6
- potted plants under glass	78.8		93.7	103.7

Inclusief effect IAA, comparable with past years. 1)

<sup>2)</sup> 

Excl. effect IAA, just like 1987/88. All years excl. effect IAA, 1985/86= 1985, etc.

outdoor vegetable holdings and mushroom growers came under heavy pressure. The entrepreneur's income of the latter was even negative. For both groups clearly better results are estimated in 1987. The results of the fruit-growers also declined in 1986, but recovered somewhat in the following year. The tree nurseries displayed a further improvement of incomes in 1986, while those of the bulb growers underwent a stabilization.

#### Income, financing and capital

Like entrepreneur's income, family income per farm increased in 1986/87 by a few percent, but fell again strongly in 1987/88 (table 6). The improvement in 1986/87 related above all to dairy and arable farming. The amount for taxes and social security contributions was considerably lower in 1986/87 than in the previous year, whereas in 1987/88 the opposite was the case. Disposable income thus lagged behind by nearly 30% in the latter year. Since family spending remained at the same level, this led to an average dissaving of 4000 guilders per farm.

Table 6 Income, savings and investments on farms (x 1000 guilders per holding)

	1984/85	1985/86	1986/87 1)	1986/87 2)	1987/88 (r)
Family income from farm	65.3	66.6	69.9	64.5	48.0
Total family income	78.8	80.1	83.6	78.2	62.0
Disposable income	57.1	61.9	70.3	64.9	46.0
Savings	7.4	10.7	20.1	14.7	-4.0
Total own financial resources	34.3	37.9	51.2	51.2	n.b.
Increase in outside capital	7.5	12.3	15.2	15.2	n.b.
Gross investments in holdings 3)	41.4	52.0	60.9	60.9	n.b.

<sup>1)</sup> Inclusief effect IAA, comparable with past years.

The more favourable development of incomes in 1986/87 resulted in a doubling of savings. In addition, more money was borrowed, so that the total of available resources increased strongly (table 6). In comparison with the previous year, gross investments in holdings in 1986/87 increased considerably to nearly 61,000 guilders per holding. Only on dairy farms the gross investments did barely change.

The average family income on horticulture under glass holdings in 1986 was more than a quarter higher than in the previous year (table 7). Taxes paid were several thousand guilders higher, whereas family spending remained about the same. The result was an increase in savings by nearly 15,000 guilders. Because advances furnished by the authorities were converted into fixed contributions, own resources increased even more stronghly.

<sup>2)</sup> Excl. effect IAA, just like 1987/88.

<sup>3)</sup> All years without reduction for IAA-premiums.

Table 7 Income, savings and investments on horticulture under glas holdings (x 1000 guilders per holding)

	1984 1)	1985 1)	1986 1)	1986 2)	1987 (r)		
Family income from farm	68.9	64.3	81.7	71.4	112.0		
Total family income	82.0	78.3	96.5	86.2	126.0		
Disposable income	64.7	61.1	75.6	65.3	101.0		
Savings	11.3	.7.6	22.3	12.0	46.0		
Total own financial resources	65.9	60.4	94.7	94.7	n.b.		
Increase in outside capital	25.3	-2.4	-30.4	~30.4	n.b.		
Gross investments in holdings 3)	104.0	83.8	83.1	83.1	n.b.		

i) Inclusief effect IAA, comparable with past years.

For the same reason, and because on balance a rather considerable number of short-term loans were repaid, outside capital per holding decreased fairly strongly. Investments remained the same. The estimates for 1987 point to a strong further increase in income (table 7). Horticulture under glass has in this way achieved the best results since the oil crisis.

<sup>2)</sup> Excl. effect IAA, just like 1987/88.

<sup>3)</sup> All years without reduction for IAA-premiums.