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AGRICULTURAL ECONOMIC REPORT 1992
Summary

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Agricultural Economics Research Institute LEI-DLO
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ABSTRACT/REFERAAT

AGRICULTURAL ECONOMIC REPORT 1992; SUMMARY
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This Periodical Report offers a summarized overview of the contents of the Agricultural Economic Report 1992 (239 p.), that is published in Dutch.

A general survey is given of the economic situation of Dutch agriculture and horticulture, mainly for the years 1990, 1991 and 1991/92. Among other subjects, attention is paid to the Common Agricultural Policy, developments in the agricultural production in the world, in the EC 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

LANDBOUW-ECONOMISCH BERICHT 1992; SAMENVATTING

Deze Engelstalige Periodieke Rapportage vormt een samenvatting van het Landbouw-Economisch Bericht 1992, dat een overzicht geeft van de economische situatie van de Nederlandse land- en tuinbouw, vooral voor de jaren 1990, 1991 en 1991/92. Daarbij wordt onder andere aandacht besteed aan het EG-landbouwbeleid, de ontwikkeling van de landbouwproduktie in de wereld, in de EG en meer in het bijzonder in Nederland en aan enkele aspecten van de landbouwstructuur en de agrarische milieuproblematiek. Voorts wordt ingegaan op de ontwikkeling van rentabiliteit, inkomens, investeringen en vermogenssituatie van de land- en tuinbouwbedrijven.

Landbouw/Landbouwbeleid/Prijspolitiek/Bedrijfsstructuur/Produktie/Bedrijfsuitkomsten/Inkomens/Financiële positie/Nederland

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PREFACE

The Agriculture Economic Report is an annual publication, offering a global survey of the economic situation of Dutch agriculture and horticulture. This is a summary in English, which is published separately as part of the series 'Periodieke Rapportages' (Periodical Reports). The complete report is available only 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 August 1992.

The Managing-director,

The Hague, October 1992

L.C. Zachariasse

1. THE ECONOMIC AND POLITICAL FRAMEWORK

1.1 General economic developments

Under the combined effects of the Gulf War, German reunification and a general downturn in the trade cycle, the rate of economic growth in the OECD countries declined from 2.5% in 1990 to 1% in 1991. This lower growth rate brought to an end the gradual fall in the unemployment figures which had taken place in those countries since the mid 1980s. The inflation rate, which averaged 4% in the OECD countries in 1991, was at approximately the same level as in the preceding years.

The Dutch economy grew by 2% in 1991, less than one half of the growth in the previous year. Despite this, there was a slight increase in the volume of employment, by 60,000 jobs. The inflation rate rose: wage costs increased by 5% in 1991 and the price index for private consumption by 3.5%. It is noteworthy that in 1991 the Netherlands had the biggest current account surplus on the balance of payments of all countries except Japan. The Dutch government is succeeding in its efforts to gradually reduce its budget deficit. These efforts are accompanied by spending cuts which result, among others, in declining subsidies for the agricultural sector as well. Besides this, this sector is increasingly having to face levies imposed within the framework of the environmental policy, for example on energy, minerals and crop protection products.

1.2 European integration

In 1991 the process of European integration was both deepening and broadening. The deepening related in particular to the agreements reached in the Dutch city of Maastricht with regard to the Economic and Monetary Union (EMU) and the European Political Union (EPU). Within the framework of EMU it was agreed that a single European currency is to be introduced before the end of the century. That would also mean the definitive end of the system of Monetary Compensatory Amounts, whereby the effects of currency exchange rate variations within the EC on

prices and trade in products subject to an EC market organization, have been absorbed in recent decades. The broadening of European cooperation related to the association agreements with the countries of the former Eastern Bloc and especially to the treaty concluded with the EFTA countries (Austria, Finland, Iceland, Liechtenstein, Norway, Sweden and Switzerland) with regard to the European Economic Area.

1.3 Agriculture in the EFTA countries

Among the implications of possible accession by the EFTA countries to the EC would be an increase in the total agricultural area of over 10% and a more than doubling of the area of forest (table 1).

The share of agriculture in the total labour force is slightly lower in the EFTA countries than in EC-12, but its share in the Gross Domestic Product is a little higher. Because the EFTA countries are in general (virtually) self-sufficient in those products which the EC has in surplus, enlargement of the Community with these countries may not be expected to contribute towards solving the surplus problem. Generally speaking, agriculture in the EFTA countries receives stronger protection than in the EC. Furthermore, in the EFTA countries this sector is closely bound up with rural landscape management, and it often has to cope with unfavourable physical conditions (mountains, northern location, short growing season, etc.). In the event of accession to the EC, for the agricultural sector in the EFTA countries a restructuring process would therefore be inevitable.

Table 1 Some information of the EFTA countries and the EC-12

	Unit	Year	EFTA countries	EC-12 a)
Total population	mln.	1990	32.3	327.1
Agricultural labour force in % total labour force b)	%	1988	6.6	7.4
Share agricultural sector in Gross Domestic Product b)	%	1988	3.4	3.0
Total area	mln.ha	1989	124.7	223.0
Agricultural area c)	mln.ha	1989	14.8	133.6
Woods and forests	mln.ha	1989	63.9	54.4

a) Exclusive of former DDR; b) Inclusive of forestry and fisheries; c) Inclusive of grassland, exclusive of woodland.

2. AGRICULTURE IN THE WORLD

2.1 Production and food supply

For the first time in eight years in 1991 a reduction in the world agricultural production occurred (-1%). Cereal production in particular declined fairly sharply (-4.5%), mainly caused by the fall in production in the former Soviet Union and in the United States. In parallel with the decline in world food production, the average per capita food production decreased by 3%. In the former Soviet Union, the Middle East and China, the decline was even larger. The world food situation has not been improved by this developments. Various forecasts of the future world food problem - at the present time, 10% of the world's population suffer from malnutrition - paint a rather gloomy picture. Factors concerned include depletion of the soil due to erosion or salination, increasing water shortages and limited possibilities to enlarge the area of land in cultivation.

2.2 World trade in agricultural products

The average world market price of all agricultural products in 1991 was around 3% lower than in 1990. This price reduction was accompanied by a fairly strong growth in the volume of world agricultural trade (+5%). As a result, the value of this trade rose slightly and amounted to almost 10% of world trade as a whole. Over the past decade, the EC's share in world exports of agricultural products has gradually increased, from 12.2% in 1980 to 13.5% in 1990. The developing countries also achieved an increasing share at first, but after 1987 this fell back due to stagnating production. In 1990 these countries accounted for a share of about 36%. At the beginning of the 1980s the United States had a share of just over 21%, which fell to a level of 16 - 17% around 1987 but has recovered somewhat in recent years. This leaves the US the world's biggest exporter of agricultural products; France is in second place and the Netherlands third.

With a share of just over 20%, the EC continues to be the world's biggest importer of agricultural products and foods. These imports are

largely made up of what are known as non-CAP products (vegetables, fruit, tropical products, raw materials for animal feeds, etc.).

The share in world imports of the US, Japan and the EFTA countries increased during the 1980s, whilst that of the EC and the developing countries group remained practically unchanged.

2.3 The Uruguay Round

The effects of the EC's agricultural policy (CAP) on non-EC countries are not clear-cut. The increased self-sufficiency of the EC in, among other things, cereals and dairy products is generally disadvantageous to the involved producers in other countries. On the other hand other producers - especially of those cereal substitutes - have benefited from the CAP.

However, in the debates on trade policy it are above all the drawbacks of the CAP which are important, especially for agricultural producers in the USA, Australia, New Zealand, etc. In the Uruguay Round on the liberalization of world trade - which has been dragging on for years - GATT Director-General Dunkel launched a fresh compromise proposal at the end of 1991. The principal elements of this proposal are the introduction of fixed tariffs on imports, a mandatory import volume (not subject to tariffs) amounting to 5% of domestic consumption, a reduction of both the import tariffs and the export support by 36%, and a 20% reduction of total internal support for the agricultural sector. These target percentages, which are based on the 1986-1988 situation, are to be reached by 1999. World market prices will rise as a result of the reduction of subsidized exports and the enlargement of imports. Within the EC, on the other hand, the proposed export reduction and import enlargement will exert a downward effect on prices, certainly when the internal production volume is insufficiently reduced by direct measures. In the event of implementation of this proposal, agricultural incomes in the EC will therefore decrease as well, unless some kind of financial compensation is given. Such compensatory measures should be considered above all in terms of direct (hectare) payments. Initially these formed a major discussion item in the GATT negotiations, but now they appear to have been accepted in principle by all the parties. Hectare payments exert less market-distorting effects than price support or price payments, although these effects depend to a considerable extent on the conditions on which these compensations are granted. In the EC, Canada, the EFTA countries and Japan, there are so many objections against Dunkel's proposal that no GATT agreement has yet been reached.

3. AGRICULTURE IN THE EUROPEAN COMMUNITY

3.1 Production and income

The volume of agricultural production in the EC-12 remained virtually unchanged (-0.1%) in 1991, after a period of uninterrupted increase since 1984. In 1991 a fairly substantial fall in production took place for sugar-beet (-7%), fruit (-13%) and wine (-13%), against production rises for cereals (+9%), pork and poultry meat (+2% and +5.5% respectively). The volume of purchased goods and services increased by about 0.5%, which points to an unfavourable development in productivity. The prices for agricultural products rose by an average of just over 1%, whereas purchased inputs became on average 2.5% more expensive. Coupled with the effect of inflation, this led for the second year in succession to a decline in real agricultural income per family worker in the EC-12 of just over 4.5%. The only countries where agricultural income rose in 1991 were Italy, Greece and the Netherlands, whilst it fell by more than 20% in Germany, Denmark, Luxembourg and Portugal.

3.2 Agricultural budget and price decisions

Expenditure on the EC market and price policy in 1991 rose by over 20% to reach 32.4 billion ECUs. The growth of expenditure on cereals (34%), sugar (40%) and beef (52%) was substantially higher than the average; the increase in expenditure on dairy products (14%) lagged behind. The reported expenditures correspond to approximately 40% of the total income of the EC agriculture sector and almost 60% of the total EC budget. In view of the EC's intentions in other fields of policy, agriculture's share of the budget is set to fall in the coming years. Although the expenditure on agricultural structural policy in the EC is modest, it has been rising fast since the Structure Funds were reformed in 1988. In 1991, this expenditure amounted to over two billion ECUs. The majority of this expenditure is earmarked for regions where development is lagging behind, which are mainly situated in the southern member states.

The price decisions for 1991/92 and 1992/93 both resulted in an unchanged price level in terms of ECUs. That meant two succesive real reductions of the average support level by approximately 4.5%, the biggest reductions since 1970/71. The effective intervention prices for cereals were raised by 2% for 1992/93, because - in spite of the large cereal harvest in 1991 - the stabilizers policy was abolished.

3.3 Reform of the EC agricultural policy

The proposals to reform the EC market and price policy, which the European Commission had presented in July 1991, were endorsed in broad outline by the Council of Agricultural Ministers in May 1992. The reform amounts to a shift in emphasis away from price support towards direct income payments. The intervention prices for cereals are to go down by about 30%. In compensation, producers will receive a hectare payment. Large cereal producers will be required to set aside 15% of their land. A similar arrangement applies among others for oilseeds and starch potatoes. Adjustments in the dairy sector are limited: a 2% quota reduction - for which the dairy farmers receive compensation - and a 5% reduction in the intervention price for butter. The intervention prices for beef are to go down by 15%, and possibilities for intervention will be severely limited. The existing premiums for bulls and suckler cows are to go up, and will be subject to a complex set of restrictions and conditions. Finally, in the sheep sector a quota system is to be implemented for the number of ewes qualifying for premium. Sugar is the main product that will not be affected by the EC agricultural policy reforms.

On the basis of model calculations, it may be assumed that the reform decisions will make a definite contribution towards the restoration of market equilibrium in various sectors, but that they will also lead to a higher agricultural budget. That will be offset by benefits to the consumer in the form of lower food prices. Taken altogether, the development of agricultural incomes in the EC will not be very much different from what would occur assuming unchanged policy.

3.4 Policy on rural areas and the environment

The agricultural sector in the EC is gradually coming more face-to-face with 'sustainability measures'. These are on the one hand environmental measures and on the other hand measures designed for conservation of rural areas and the countryside. Implementation of these measures leads to constraints on 'production agriculture' and more support for 'nature

agriculture'. A specific example in this respect is an EC directive to limit the nitrate content in groundwater, on the basis of which the use of nitrogenous fertilizer will have to be reduced in certain areas. Another example refers to a subsidy scheme for conversion to environmentally friendly agricultural methods. The present voluntary set-aside scheme is only being used on a limited scale. On the other hand, the mountain farmers scheme, intended to counteract depopulation or to preserve the countryside in less favoured areas, is far more successful. In 1989, about 1.2 million European farmers were paid compensatory allowances under this scheme.

4. STRUCTURAL DEVELOPMENTS IN DUTCH AGRICULTURE

4.1 Holdings

From May 1990 to May 1991, the number of main-occupation holdings in Dutch agriculture fell by 2% to just over 96,000. The biggest decline occurred once again among dairy farms - due to the milk quota system - and among arable farms. An increasing number of arable farmers is performing secondary activities. This now applies to one in ten arable farms.

In contrast to preceding years, in 1990-91 the number of part-time holdings also fell. The share of these holdings in the total, however, is continuing to increase gradually, and now exceeds 21%. In 1990 they accounted for about 9% of the farmland in use, against 6.5% in 1975.

In a growing number of cases the transfer of an agricultural holding from one generation to the other is taking place via a partnership or firm consisting of the present farmer and his successor (usually a son). In 1989-90, this system was already applied to over 40% of the business transfers. A partnership or firm now exists on half of the number of holdings where a successor aged 16 years or more is present. This form of business transfer is especially popular in the glasshouse sector, where there are many large holdings. Experience with this method of business transfer is generally positive and a further increase may therefore be expected.

4.2 Labour force

In the period 1989-1991, the number of agricultural workers fell by only 0.3% a year, to reach a level of just over 288,000. The fall was attributable exclusively to arable and livestock farming; in horticulture the number of workers has been increasing in these years. The share of horticulture in the total number of workers has consequently risen from 27% in 1986 to 31% in 1991. Both in agriculture and in horticulture, there has been an increase in the number of - especially female - non-family workers. There is also a rising trend in the number of female farm holders. This is associated with the rise - generally due to fiscal reasons - of the number of husband-

and-wife business partnerships. At the same time, wives of farmers and horticultural entrepreneurs nowadays tend less often to perform regular agricultural work on the holding. The emphasis of their work has shifted more towards administrative duties etc. Because (co-)working wives seldom participate in social insurance schemes, they - unlike their counterparts in most other occupations - are not often entitled to paid maternity leave.

4.3 Land use

After two years of stabilization the total area of land in cultivation in the Netherlands decreased by 15,000 hectares between May 1990 and May 1991, taking it below the two million hectares mark for the first time. Just over 15,000 hectares of this land was fallowed under the EC set-aside scheme. The area accounted for horticulture under glass increased to approximately 10,000 hectares. In recent years the enlargement of the glasshouse area in the 'old' centres in the 'Randstad Holland' region (the Western conurbation broadly defined by the major cities Amsterdam, Utrecht, Rotterdam and The Hague) has been taking place less vigorously than elsewhere in the Netherlands. An important reason for this difference is the lack of space available in the Randstad.

The Dutch Government has designed new plans in order to arrange the use of the scarce land space in such a way as to contribute towards the general desire for sustainable development. For certain parts of the rural areas, this means that the development of agricultural activities will be subordinated to ecological objectives. In that context it is important that farmers gradually gain more interest in contractual agreements aimed at countryside management. In 1991 over 20,000 hectares (1% of the total area of farmland) were covered by such management agreements.

Land prices in 1991 remained at broadly the same level as in 1990. The adjustment of the rent norms to 2% (net) of the market value of unlet land, that has been announced by the Government, is expected to lead to an increase in rents especially for the sandy regions in the East and the South of the country.

4.4 Changes in the production structure

Much use is being made of the possibility to lease milk quotas, which was introduced a few years ago. In 1991/92, 3.3% of the country's total quota was leased, involving almost one quarter of the total number of quota-holders, either as lessee or lessor. The lessees include a relatively

large number of younger dairy farmers, while the lessors include relatively many older farmers with fairly small quotas. In spite of the milk quota system and the quota reductions, there is nevertheless a certain scale enlargement taking place in the dairy farming sector. For example, in the period 1984-1991 the number of farms with a milk quota above 500,000 kilos increased by a few per cent whilst the number of those with a quota of less than 100,000 kilos declined by over 15%. This proces operates partly via the purchase (by larger farms) and sale (by smaller farms) of milk quotas. The milk quota prices increased from HFL 1.24 per kilo in 1986 to almost HFL 4.50 in 1990, but fell back in 1991 to just over HFL 4.00 per kilo.

The production capacity of the Dutch agricultural sector as measured in Dutch size units (see Appendix) increased by 1.4% in 1990/91. This was largely due to an increase in the horticultural sector and in the number of beef cattle. The total production capacity in 1991 was around 4% higher than in 1984. In the preceding seven-year period the increase had been about 13%. The slow-down in the capacity growth rate is connected above all with changes in policy, such as the milk quota system and the environmental policy.

In the period 1984-1991, the average size of the main-occupation holdings increased for all business types; the increase was lowest for dairy farms and highest for horticultural holdings. In general, the average area per farm also increased. The strong growth of the horticultural holdings was accompanied by a rise in the number of workers per holding; for the other types of holding, this figure remained practically unchanged.

4.5 Agriculture and the environment

The Dutch environmental policy for the agricultural sector is gradually being intensified, leading among other things to higher costs and reduced scope for expansion, but also to a reduced input of chemicals. For instance, in the period 1987/88-1990/91 the amount of phosphate used per hectare on specialized dairy farms fell by 30%, and the amount of nitrogenous fertilizer by 15%. There is also a downward trend in the use of pesticides; the national figure for 1991 was 14% lower than the average for the period 1984-1988. The targets of the environmental policy, however, will require even more far-reaching reductions. Wide differences in pesticide utilization figures are found to occur amongst individual holdings, at least in the glasshouse and bulb production sectors. This offers clear opportunities to achieve further cuts. The policy on manure and ammonia emissions is expected to result in a further increase in costs to the agricultural sector, specifically to intensive livestock production. These costs are

connected with among other things investments in manure storage capacity on stock farms, levies to fund the necessary industrial processing of manure into products for use elsewhere, and modifications to livestock houses designed to prevent ammonia emissions.

Elsewhere in the EC - a.o. in Belgium, Denmark, Germany and France - legislation on the environment is also being broadened. In some cases this legislation seems, on paper, stricter than in the Netherlands. Because of the smaller magnitude of the manure problems, or because of a different production structure, in other countries nevertheless these regulations generally have a less restrictive impact on pig-farming practice than in the Netherlands.

5. PRODUCTION, PROCESSING AND MARKETING

5.1 Production and price formation

With a 1% volume growth and a 2% price increase, the production value of the Dutch agricultural sector in 1991 was slightly higher than in the preceding year, and reached almost 39 billion guilders. The growth was distributed unequally amongst the various sectors (table 2). Smaller harvests of wheat (-12%), sugarbeets (-15%) and starch potatoes (-11%) and production increases for ware potatoes (+3%) and seed potatoes (+10%) led to a volume reduction of just over 5% in the arable sector. On average, arable product prices went down by 1.5%. As a result of a further quota reduction, milk production fell by 2% whilst milk prices rose a little. The production of meat and eggs rose by 3%. There were substantial increases in particular in the production of beef, veal and sheepmeat (27%, 6% and 7% respectively). Against this, there was a 5% drop in the production of pigmeat. This was due above all to an outbreak of 'Blue Ear'-

Table 2 Development of volume and prices of agricultural and horticultural production

Product	Value mln.HFL	Changes in % in relation to previous year					
		volume			price		
	1990 (prov.)	1989	1990 (prov.)	1991 (est.)	1989	1990 (prov.)	1991 (est.)
Arable products	3,360	6.3	4.2	-5.5	13.4	-9.4	-1.5
Milk	8,710	0.3	-1.8	-2.0	2.1	-10.0	1.0
Meat and eggs	13,700	-3.0	3.4	3.0	16.6	-7.6	-1.0
Vegetables and fruit	5,020	8.8	6.4	-1.5	4.7	7.8	9.5
Cut flowers	3,530	8.1	4.4	2.7	-5.4	3.6	6.8
Pot plants	2,050	11.3	4.3	8.4	-0.1	5.0	1.6
Other horticultural products	1,500	7.5	19.6	7.5	-3.3	-3.7	2.5
Total/Average	37,870	2.4	3.5	0.9	7.7	-4.4	1.8

disease, which caused many stillborn piglets. The development of meat prices varied widely: those for beef and poultry meat exhibited a sharp fall, and those for sheepmeat and pigmeat a rise. The production growth in the horticultural sector worked out at 2.5%. The biggest growth was achieved for tree nursery products (+13%), mushrooms (+12%), pot-plants (+8%) and glasshouse vegetables (+5%). Only the fruit-growing sector, which was ravaged by night-frost in spring, showed a sharp fall in production (-31%). The favourable development of sales opportunities on the foreign markets enabled horticultural prices to rise by 6 to 7%.

5.2 Developments in the food, drink and tobacco industry

Just under 60% of the Dutch agricultural output is treated or processed in the domestic food industry. The extent to which products are being processed varies. In the case of animal products, the figure is relatively high (about 85%). Of the horticultural output - 60% of which consists of ornamental products - only 2 to 3% is processed. The food, drink and tobacco industry is one of the most important sectors of Dutch manufacturing industry. In 1990, 23% (some 20 billion guilders) of the gross added value of total Dutch industrial output was achieved in this sector, which also accounted for 17% (over 160,000 person-years) of total industrial employment. Although the gross operating result of the food, drink and tobacco industry has improved substantially in recent years (from 7.1% of turnover in 1987 to 8.7% in 1990), it remained well behind the average operating result of around 11% as achieved within the manufacturing industry as a whole. The improvement in operating result occurred above all in the drink, tobacco, cocoa, chocolate and sugar processing industries.

The gross production volume of the Dutch food, drink and tobacco industry grew - just as in the rest of the EC - by over 25% in the period from 1980 to 1990. This was less than the increase in agricultural and horticultural production, which amounted to about 30% over the same period. The difference in the two growth rates can largely be explained by the fact that the growth in agricultural production mainly related to horticultural products, of which - as stated above - only a very small proportion is processed.

A drastic restructuring process of the food manufacturing industry is in progress both in the Netherlands and in the other EC member states, above all in the form of mergers and take-overs. Reasons for this restructuring process include the completion of the internal EC market, the intensified competition this will generate, developments in the field of the Common Agricultural Policy and the GATT negotiations. In the Netherlands, a strong concentration has taken place especially in the dairy industry.

5.3 Consumer spending on food

The share of food, drink and tobacco in the total consumer spending in the Netherlands declined from 27% to 18% between 1970 and 1990. This was caused on the one hand by the fact that the volume growth of spending on food, drink and tobacco remained behind that of total consumer spending, and on the other hand by the fact that the prices of food, drink and tobacco rose less than prices of all consumer goods. Also, there has been a fall in the proportion of money spent on food that actually finds its way to agriculture and horticulture. In the early 1970s, 35 cents of every guilder spent on food went to those sectors, whereas by the late 1980s that figure has fallen to only 28 cents. The underlying reasons are not only the failure of prices of agricultural and horticultural products to keep up with the general price level, but also the increasing extent to which those products are processed. Within the EC by and large in 1989 21,5% of the household budget was spent on food, drink and tobacco, a slightly larger share than in the Netherlands. Only the Germans underspent the Dutch in this respect: 16.6% of their household budget went in this way.

Table 3 Imports and exports of agricultural products in 1991

	Value in 1000 mln.HFL		Changes in % in relation to previous year			
	world	from EC	world		EC	
			volume	price	volume	price
Imports						
Arable products	9.1	6.6	3.2	0.9	6.0	1.2
Horticultural products	4.1	2.4	12.7	1.0	11.9	3.1
Animal products	6.7	6.2	13.8	0.4	19.2	-2.1
Other agricultural products	15.1	6.9	0.8	-1.0	6.9	-1.6
Total/Average	35.0	22.0	5.0	0.0	10.4	-0.4
Exports						
Arable products	9.9	7.0	3.1	-1.6	5.0	-1.3
Horticultural products	15.3	12.8	10.1	0.7	10.4	1.0
Animal products	19.5	16.5	4.7	-2.1	4.0	-1.0
Other agricultural products	16.9	13.1	7.9	-0.4	4.1	3.3
Total/Average	61.6	49.3	6.6	-0.9	5.8	0.9

5.4 Imports and exports of agricultural products and food

In 1991, the Netherlands exported agricultural products and food worth 61.6 billion guilders, whilst imports of these products were worth 35 billion (table 3). This gave an agricultural trade balance surplus of 26.6 billion guilders, about 1.5 billion guilders higher than in 1990. The growth of the trade balance surplus is entirely attributable to volume effects: the export volume rose more than that of imports. The price developments were less favourable. Export prices fell slightly as a result of lower world market prices and import prices remained unchanged. The volume of imports grew because more products were imported from EC-countries (+10.4%). Items for which considerable import increases took place included tomatoes, apples, live animals, meat, butter and cheese. The volume of exports, over 30% of which go to Germany, rose by almost 7%. The biggest rise was achieved for horticultural products (+10%). For animal products a fall in the exports of live cattle, pigmeat and eggs occurred. Against that, there was a substantial increase in exports of beef, veal and poultry meat, and of milk and dairy products. The export prices of animal products were over 2% lower than in 1990, mainly because of the lower prices for beef and dairy products. The exports of arable products scarcely showed any increase on balance, in spite of the fact that over 10% more potatoes were exported.

6. RESULTS OF THE AGRICULTURAL SECTOR AND HOLDINGS

6.1 The agricultural sector in the Dutch economy

In 1990, the direct contribution of the agricultural sector to the national income of the Netherlands was about 4%. In 1970, that figure was still almost 6%. Agricultural production, however, also entails other activities in processing and supplying sectors of industry. Calculated on the basis of input/output tables, the contribution made by the entire agribusiness complex to the national income in 1988 - more recent figures are not available - was about 9.5%. This figure does not incorporate the processing of raw materials of foreign origin, such as cocoa, coffee and oilseeds. The share of the agribusiness and related activities in the total employment is slightly larger than that in the national income. Almost 60% of all jobs in the Dutch agribusiness depend on exports of agricultural products and food.

6.2 Returns and costs of the arable and livestock sector

The production value of Dutch agriculture (arable and animal farming) in 1990/91 was 6.5% lower than in the preceding year (table 4). The fall was entirely due to the lower prices, because there was a marked increase in the production volume for the first time since 1986/87. The fall in prices affected all the product groups. The same applies for the volume growth, except for milk production which was slightly down. The value of non-factor costs decreased somewhat above all as a result of the 10% lower feed costs. The result of these developments was a decline in added value by around 15%. The value of the factor costs increased by 5 - 6%, mainly because of higher interest rates and wage costs. The combined result was that in 1990/91 the percentage of cover of factor costs by added value was only about 65, whilst the figure for 1989/90 had been over 80.

In 1991/92, the production value of the agricultural sector again increased by a few per cents. The volume remained unchanged on balance, but the average prices rose slightly. The main factors here were the price

Table 4 Returns and costs of the agricultural sector (exclusive of horticulture)

	Value mln.HFL			Changes in % in relation to previous year			
				volume		price	
	1989/90	1990/91 (prov.)	1991/92 (est.)	1990/91 (prov.)	1991/92 (est.)	1990/91 (prov.)	1991/92 (est.)
Returns	27,230	25,460	25,950	2.5	-0.0	-9.0	2.0
Non-factor costs	17,830	17,500	18,280	2.5	1.5	-4.5	3.0
Net value added	9,400	7,960	7,670	3.0	-8.5	-18.0	5.5
Factor costs	11,570	12,220	12,510	0.5	-0.5	5.0	3.0
Total costs	29,400	29,720	30,790	1.5	0.5	-0.5	3.0

rises for pigs and milk. In 1991/92 there came a halt to the downward trend in the value of non-factor costs; that downward trend had continued since 1983/84. In particular, the 5% price increase in cattle feed played a role here, but the increasing inflation rate was also an important factor. The value of non-factor costs rose by 4 - 5%. The value added went down by about 4% (table 4). The increase in factor costs remained limited to around 2%; the effect of the higher wage costs was largely absorbed by the reduction in interest rates. As a result of these developments, the percentage of cover of factor costs by added value declined still further, to just over 60.

6.3 Results of arable and livestock farms

On the average farm (arable and livestock), the entrepreneurial income earned in 1990/91 was HFL 56,000 per farmer. That was almost 30% lower than the high level of 1989/90. A fall occurred for all the various categories, but the biggest decline (30 - 35%) could be found on dairy farms (table 5). For arable farms and intensive livestock farms, the average fall worked out at 15 - 20%. For the latter category - which incidentally still managed to make a comparatively high income - the decline was attributable entirely to pig production. Both in the egg production sector and in the broiler sector, better returns were achieved than in 1989/90, which itself had been relatively favourable.

The estimates for 1991/92 point to a small further decline in entrepreneurial income for the average farm, to HFL 52,000. For dairy farms there was a further fall of some 15%, so that the returns for these holdings

Table 5 Average entrepreneurial income on farms (x 1000 HFL per farmer)

	Number of farms 1990/91	Average entrepreneurial income				
		1987/88	1988/89	1989/90	1990/91	1991/92 (est.)
Dairy farms						
- larger farms	20,140	71.2	89.8	90.4	60.7	51.0
- smaller farms	10,210	27.2	41.1	39.5	25.1	21.0
Intensive livestock farms						
- larger farms	9,330	13.1	23.8	116.0	93.1	110.0
- smaller farms	5,040	4.0	9.4	42.2	34.5	35.0
Arable farms						
- larger farms	6,470	3.7	47.7	90.7	79.5	54.0
- smaller farms	2,440	7.3	21.7	40.7	25.5	16.2

- after a number of good years - have returned to a moderate level once again. The fall in average entrepreneurial income for arable farms is estimated at about 30%. Unfavourable returns were achieved especially by the arable farms in the North-East of the Netherlands. On larger-scale intensive livestock farms the average income went up again, but for the smaller farms of this category there was practically no change. In the pig production sector the returns were generally better, but in both poultry sectors a decline took place.

6.4 Results of horticultural holdings

In 1990 glasshouse horticulture in general received higher product prices, both for vegetables and for pot plants and cut flowers. The improvement in prices was more than sufficient to absorb the increase in costs. The average entrepreneurial income for all glasshouse growers accordingly rose from almost HFL 74,000 in 1989 to just over HFL 81,000 in 1990. The biggest improvement took place for glasshouse vegetable producers and the smallest for the pot plant producers (table 6). In spite of the small increase, it was the latter category of producers who earned the highest average income. The cut flower growers saw their relatively low average entrepreneurial income go up by over 10%. In 1991, the prices of glasshouse vegetables rose by almost 10% and those of cut flowers by almost 7%, while prices for pot plants remained about the same. As a result, the first two producer categories saw their average income go up once again, by 30% and 24% respectively (table 6). A favourable level was reached especially in the glasshouse vegetable sector. The average income

Table 6 Average entrepreneurial income on horticultural holdings (x 1000 HFL per entrepreneur)

	Number of holdings in 1990	Average entrepreneurial income				
		1987	1988	1989	1990	1991 (est.)
Glasshouse holdings with mainly:						
- vegetables	3,280	111.8	73.9	81.2	92.6	121.0
- cut flowers	3,480	81.8	91.8	56.6	62.6	77.4
- pot plants	790	96.7	115.0	112.8	116.8	96.7
Outdoor vegetable growers	990	44.0	23.3	53.3	80.9	45.0
Tree nurseries	850	98.9	85.7	84.6	90.0	-
Fruit growers	1,220	34.5	32.9	41.3	71.1	58.6
Flower bulb growers	1,290	83.6	69.2	46.7	64.5	73.8
Mushroom growers	570	50.6	68.2	92.8	63.2	52.7

of pot plant growers fell by 15 - 20%. In 1991, these holdings operated at a net loss for the first time since 1983.

The results for the other horticultural holdings show a highly varied picture. In 1990, growers of outdoor vegetables achieved relatively good results due to the high prices of vegetables, but the following year they had to take a substantial fall in income (table 6). In the tree nursery sector, business returns have remained at a comparatively good level in recent years. Fruit producers did very poorly in 1987-1989, but their incomes recovered fairly strongly in 1990 as a result of the higher selling prices. The following year, fruit prices were far higher still, but because of the frost damage the production was so small that average incomes are estimated to have fallen. Results achieved by the bulb producers showed an upward trend both in 1990 and 1991. The opposite applies for mushroom producers. Falling prices were the cause of the downturn in this sector, which had emerged from a deep trough in the years 1986-1989.

7. INCOME, FINANCING AND INVESTMENTS

7.1 Arable and livestock farms

In parallel with the decline in business returns, the average family farm income in 1990/91 worked out at about a quarter lower than in 1989/90 (table 7). Both for dairy farms and for arable farms, this income was about HFL 70,000, and for intensive livestock farms the figure was about HFL 90,000. Any income from external sources has to be added to the family farm income and taxes paid etc. have to be deducted in order to find the disposable income (see Annex). In 1990/91, that figure averaged just under HFL 74,000 per farmer. Of that amount, it was possible to save just over HFL 24,000, against over HFL 53,000 in 1989/90. Due to the lower savings, the total amount of own funds available for financing went down from HFL 6.5 billion in 1989/90 to HFL 4.5 billion in 1990/91. On balance, nearly an additional amount of HFL 1 billion more was borrowed. Almost two thirds of the available funds were used for investments. Average investments per farm account for HFL 71,600. That was only 6 - 7% less than in the top year 1989/90 (table 7). Investments were down especially in land and livestock, but they were well up in buildings. Part of these investments were made in connection with modifications to

Table 7 Income, savings and investments on farms (x 1000 HFL per farmer)

	1987/88	1988/89	1989/90	1990/91	1991/92 (est.)
Family farm income	54.2	71.0	96.2	71.3	65.7
Total family income	65.9	85.1	111.5	89.8	83.3
Disposable income	54.2	74.4	101.6	73.7	65.4
Savings	6.5	28.4	53.2	24.3	16.8
Total own financial resources	39.0	62.0	88.4	60.7	-
Increase in outside capital	2.8	7.4	-0.9	12.6	-
Gross investments in holdings *)	46.3	70.6	76.4	71.6	-

*) *x 1000 HFL per farm.*

meet environmental requirements. For 1991/92, an 8% fall in average family farm income is estimated to just over HFL 68,000 (table 7). The biggest fall (almost 30%) of this income occurred on arable farms, which worked out at an average of HFL 47,000. There was also a substantial fall for dairy farms (-15%), where the average family income came to HFL 58,000. For intensive livestock farms, however, income rose by around 10% to average HFL 100,000. Because of their reduced income, there was also a fall in savings by arable and dairy farmers.

7.2 Glasshouse holdings

In the glasshouse horticulture sector, the average family income from business in 1990 was about 8% higher than in 1989 (table 8). The biggest rise (13%) was for the vegetable producers, who achieved an average income of over HFL 103,000. For the pot plant producers, the family income improved by 6.5% to average HFL 115,000. For cut flower producers the figure was just over HFL 80,000, representing an increase of 4.5%. Because of a rise in income from other sources and a reduction in taxes paid, the disposable income of the average glasshouse grower increased relatively sharply, namely by 25 - 30%. This enabled savings to more than double. The total amount of own funds available for financing within the glasshouse sector increased, partly as a result of this, by a quarter to almost HFL 1.4 billion. In addition, a net amount of approximately HFL 400 million additional loan capital was acquired. The biggest part of the available funds was used for business investment. This, however, decreased by a few per cent relative to the high level of 1989, averaging HFL 173,000 per holding (table 8). Investments in land, building and glasshouses were down, but in installations etc. they were well up.

Table 8 Income, savings and investments on horticulture under glass holdings (x 1000 HFL per entrepreneur)

	1987	1988	1989	1990	1991 (est.)
Family income from holding	110.2	100.2	87.9	95.0	111.0
Total family income	124.1	113.7	101.3	110.8	127.0
Disposable income	103.2	86.6	71.7	91.7	102.0
Savings	51.3	31.0	15.1	32.7	43.0
Total own financial resources	106.0	97.8	88.5	112.7	.
Increase in outside capital	-12.3	38.2	56.6	36.2	.
Gross investments in holdings *)	100.0	167.3	179.4	172.9	.

*) *x 1000 HFL per holding.*

For 1991 an increase of just over 15% in family income from business is estimated for the average glasshouse grower. Here again, the biggest income improvement was for vegetable producers, which achieved an average annual income of HFL 120,000. The cut flower producers had an average family income of just over HFL 90,000 (+14%), while pot plant producers suffered an 8% drop in income to an average amount of HFL 100,000 per entrepreneur. As a result of this, savings by the average glasshouse grower increased once again. As a matter of fact, it does not look as though this rather bright picture is going to continue through 1992; in view of the price trends, especially in the glasshouse vegetable sector, a sharp fall is already emerging.

ANNEX

Definitions

Dutch Size Units (dsu): A unit for the economic size of agricultural holdings. The dsu is based on the standard gross margins (sgm), which are calculated by deducting related specific costs from the gross returns per hectare or per animal. The sgm is expressed in Ecu (current prices). On the EC level the size of farms is not measured in sgm, but in the more workable European Size Units (ESU) (1 ESU = ca. 1200 Ecu sgm). Dsu is the Dutch variant of the ESU. The dsu is recalculated frequently in such a manner that the average farm size in dsu corresponds with the development of the real value added of the average farm. Some examples: 1 ha wheat = 0.9 dsu; 1 ha sugarbeet = 1.79 dsu; 1 dairy cow = 1.06 dsu; 1 sow = 0.21 dsu and 1 ha tomatoes under glass = 130.93 dsu

Factor costs: (imputed) costs of labour, capital and land

Non-factor costs (intermediate consumption): costs of goods and services purchased from other sectors (incl. depreciations)

Net value added: gross returns minus non-factor costs

Family farm income: income of the farm family out of the farm business; is a remuneration for the labour of all family members and the own capital and land;

Entrepreneurial income: the remuneration for the own labour of the farmer and for his own capital and land; this income results after deduction of a remuneration for the labour of the other family workers from the Family farm income

Total family income: family farm income plus income from non-farm activities and social security of the farmer and his spouse

Disposable income: total family income minus current social security premiums and taxes on income and wealth