

THE HUNGARIAN AGRICULTURE



AND FOOD INDUSTRY IN FIGURES

Ministry of Rural Development

2012



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Foreword

The performance of the Hungarian agriculture in the year 2012 was generally determined by the weather. Crop production suffered most from the extreme weather conditions, which was mainly reflected by yields and trends in crop prices.

Low yields resulted in spiking producer prices not only in Hungary, but around the whole world, therefore producer prices increased by an exceptionally high rate in the second half of the year, which fortunately offset the decline in yields. As a result, notwithstanding a slowing pace of growth over the previous year, agricultural output again reached a record level in 2012 after 2011. Despite the improving output, the added value and profitability of the sector declined as a result of the rise in producer costs, which was a burden not only for crop producers, but also for animal producers through the high feed prices. As a further disadvantage for animal production, not only the yields, but also the quantity of roughage decreased significantly.

The Ministry, however, identified the adverse trends in time and therefore prepared a package of short-term measures to manage the loss of crops resulting from the summer drought and the turmoil on the feed market. In the framework of such measures, it significantly increased the amount of national subsidies in the year 2012, principally to avoid a decline in stocks in the granivore sectors and to ensure their profitability. By reinforcing these efforts, in 2012 the Government approved the proposal on strategic measures aiming at the improvement of the pig sector, i.e. the pig strategy, and the ruminant restructuring programme serving the improvement of competitiveness in the ruminant sectors for beef cattle and sheep animal keepers. On the basis of the foregoing, we may conclude that the year 2012 was not only about the drought, but also about support for the livestock sectors. The measures were positively reflected by the statistics, as the volume of live animal production did not decline after many years; moreover, there was moderate growth in the volume of animal products. This growth resulted in the amelioration of the ration between crop and animal production.

The higher producer prices passed through to food consumer prices in the second half of the year, with the food industry confronting two problems. The decline in the profitability of food companies was attributable to the high raw material and crop prices, on the one hand, and to the low buying-in prices in relation to the concentrated retail chains. Despite this duality, the food industry managed to improve its performance in 2012 as a result of rising export sales.

Thus, the improved performance of the food industry on foreign markets not only improved output in the subsector, but also positively affected agricultural exports. Hungary's agricultural foreign trade not only achieved a record level surplus, but agricultural exports reached the highest level since EU accession.

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Role of agriculture in the national economy

Agribusiness

The role of agriculture within the national economy cannot be exclusively measured with output, employment and GDP data that are characteristic of the sector, as the agro-industry bears a major effect on its related supply, processing and distribution industries. The term “agribusiness” was introduced to signify this meaning.

Agribusiness in a wider context includes:

- the agro-industry (agriculture, forestry, fisheries, wildlife management, food industry, manufacturing of tobacco products),
- supply activities that provide input to the agro-industry (e.g. chemical manufacturing),
- activities that process and distribute agro-industrial products (e.g. textile production, wood processing, food retail and wholesale, catering, transport).

Significance of agribusiness in the national economy

Item	Output				Gross added value				Employees			
	HUF million		per cent		HUF million		per cent		persons		per cent	
	2008	2011	2008	2011	2008	2011	2008	2011	2008	2012	2008	2012
Preventive activity – of which:	1,045,423	1,259,769	1.9	2.1	213,873	248,130	0.9	1.0	51,502	50,329	1.3	1.3
Manufacture of raw materials and production facilities	850,038	1,046,121	1.5	1.7	162,664	189,518	0.7	0.8	26,410	25,760	0.7	0.7
Trade in raw materials and production facilities	195,385	213,647	0.3	0.4	51,210	58,612	0.2	0.2	25,092	24,569	0.6	0.6
Agriculture and food industry	4,850,574	5,365,202	8.6	9.0	1,419,142	1,606,440	6.3	6.8	297,788	326,643	7.7	8.4
Agriculture (including forestry, fisheries)	2,329,565	2,570,028	4.2	4.3	912,029	1,067,004	4.0	4.5	169,200	200,331	4.4	5.2
Food industry	2,521,009	2,795,174	4.5	4.7	507,113	539,436	2.2	2.3	128,600	126,312	3.3	3.3
Ancillary activity – of which:	2,804,825	2,945,737	5.0	4.9	986,974	994,604	4.4	4.2	233,328	224,960	6.0	5.8
Manufacturing industry (not incl. food industry)	737,577	862,255	1.3	1.4	190,693	201,548	0.8	0.9	67,620	52,971	1.7	1.4
Food trade	1,275,373	1,299,524	2.3	2.2	540,330	553,307	2.4	2.3	2,661	2,501	0.1	0.1
Catering	762,177	753,670	1.4	1.3	255,308	238,900	1.1	1.0	157,204	163,958	4.1	4.2
Other activities	29,697	30,287	0.1	0.1	643	849	0.0	0.0	5,842	5,530	0.2	0.1
Total agribusiness	8,700,822	9,570,707	15.5	16.0	2,619,990	2,849,174	11.6	12.0	582,618	601,932	15.0	15.5
Total national economy	56,129,155	59,793,583	100.0	100.0	22,646,111	23,678,903	100.0	100.0	3,879,274	3,877,886	100.0	100.0

Source: Prepared by the AKI (Research Institute of Agricultural Economics), Financial Policy Department on the basis of KSH (Hungarian Central Statistical Office).



In 2011, the agribusiness generated **HUF 2,849.2 billion in added value with HUF 9,570.7 billion in output**. Its share within the national economy was largest in relation to **output, with 16.0 per cent**. That figure is followed by employment with 15.5 per cent and gross added value with 12.0 per cent¹. **The sector employed 601.9 thousand people in 2012.**

In comparison to the year 2008, the total share of agribusiness increased in relation to all three indicators: by 0.5 percentage points in relation to **output**, by 0.4 percentage points in relation to **gross added value** and by 0.5 percentage points in relation to the **rate of employment**. The agro-industry (food industry and agriculture) played a key role in contributing to growth; its share exceeded the previous level in relation to all three indicators.

Results of the agro-industry in 2012

Agriculture also contributed to the decline in the performance of the Hungarian national economy in 2012. The volume of the **gross domestic**

product (GDP) fell by 1.7 per cent in 2012, where 0.8 percentage points are attributed to agriculture. The decline in agricultural performance is primarily attributed to crop loss caused by adverse weather conditions and the high base level of 2011.

On the basis of preliminary data provided in the **Agricultural Chart of Accounts**, **agricultural output** equalled **HUF 2,229 billion** at nominal value in 2012, which is 2.8 per cent higher than in the previous year. The 9.2 per cent decrease in the volume of production was offset by the 13.3 per cent rise in prices. The output of vegetable products decreased by 1.5 per cent as a result of the 15.8 per cent decline in volume and the 17.1 per cent rise in prices. In contrast, the volume and price of the production of live animals and animal products also increased (by 1.2 and 10.2 per cent, respectively); as a result output exceeded the figure for the year 2011 by 11.5 per cent. Within output, the ratio of animal production increased in comparison to crop production. While in 2011 crop production dominated in a ratio of 60.3/32.6, the year 2012 brought a more balanced one, i.e. 57.8/35.4.

Share of the agro-industry in the national economy

Year	Ratio of agriculture			Ratio of the food industry			Food, beverages, tobacco	Agricultural products		Consumer price index previous year = 100.0	
	in employment ^{b)} , per cent	in GDP production at nominal value, per cent	in investment	in employment ^{b)} , per cent	in GDP production at nominal value, per cent	in investment	ratio in consumption ^{d)}	in exports ^{c)}	foreign trade balance, HUF billion ^{c)}	food	total
2008	4.4	3.4	4.7	3.3	2.2	1.8	24.8	7.9	483.6	110.2	106.1
2009	4.6	3.0	5.6	3.5	2.5	1.9	24.6	8.6	486.0	104.4	104.2
2010	4.5	3.0	4.8	3.3	2.4	2.2	24.0	8.2	587.3	103.2	104.9
2011	4.9	3.8	5.6	3.3	2.3	2.5	24.5*	9.0	770.1	106.6	103.9
2012	5.2	3.2*	5.8*	3.3	..	2.5	..	10.1	1,043.5	105.9	105.7

^{a)} Economic organisations classified in the agriculture, forestry, fisheries sector.

^{b)} Labour force survey data.

^{c)} According to Standard International Trade Classification (SITC).

^{d)} Of domestic consumption expenditures based on Classification of Individual Consumption according to Purpose (COICOP).

* Preliminary data.

Source: KSH, AKI

¹ For the calculation we relied on the most recent available data (ÁKM (balance of intersectoral relations) for 2008, output and gross added value for 2011, employment figures for 2012), and applied data for the year 2008 for the base year.



The volume of **intermediate consumption** (i.e. input used in the course of production) basically remained at the level of the previous year, but prices rose by 8.5 per cent. As a result, the value of intermediate consumption increased by a rate greater than output, therefore the gross added value of agriculture decreased by 6.4 per cent. **Output** and sales in the **food industry** again increased significantly by 10.5 per cent after 2011, equalling **HUF 2,524 billion** in 2012 at nominal value. **Sales in the food industry** also fared favourably. The **value of total sales** at nominal value increased by **10.6 per cent**, its **volume increased by 4.5 per cent**. *This is mainly attributable to export sales, but domestic sales also showed growth in 2012.*

Similarly to investment in the national economy (-5.2 per cent), **agricultural investment** also declined (-1.9 per cent), but the decrease was smaller in relation to agriculture. As a result, the share of agriculture within national economic investments increased. Opposing trends characterised agricultural investments: the volume of building and machinery investments declined, while the volume of vehicle investments increased.

The value and volume of **food industry investments** at nominal value fell short of the figures for the previous year by 6.4 per cent and 8.7 per cent, respectively. The ratio of food industry investments within national economy investments remained unchanged. The decline in investment is primarily attributed to the marked decrease in building investment, although vehicle purchases also decreased. In contrast, the value and volume of machinery investment increased in 2012.

Agricultural foreign trade positively contributed to the performance of the national economy in 2012 as well. Agricultural exports and the foreign trade surplus significantly exceeded previous record levels measured in 2011, where **the macroeconomic importance of agricultural foreign trade further grew**.

Employment within the agricultural sector continued to grow in 2012. The **number of employed persons in agriculture increased** by 8.2 per cent (**by 15 thousand persons**) in 2012, 7.7 per cent higher than in the year 2011. As a result, the ratio of agriculture within employment in the national economy increased to 5.2 per cent. Similarly to the year 2011, the number of employed persons in the food industry increased in 2012 (by +1.9 per cent), but its ratio within total employment did not change. *As a result of these trends, the combined ratio of agriculture and the food industry increased to 8.5 per cent within employment.*

Similarly to the previous two years, the **producer price level of agricultural products** further increased in 2012, although the rate of growth declined. After the 16.8 per cent rise in 2010 and the 19.3 per cent rise in 2011, agricultural producer prices rose by 15.4 per cent in 2012. Crop production remained the engine of inflation, while the producer price level of vegetable products, and livestock and animal products exceeded the level of 2011 by 17.8 per cent and 11.0, respectively.

The **increase in producer prices exceeded the rise in expenditures**, which were 6.8 per cent higher than in the previous year. *As a result, the agriculture price scissors followed the positive trend of the past two years; its value equalled 108.1 per cent in 2012.* This means that the **income position of producers resulting from price changes improved**.

Inflation accelerated in 2012; consumer prices increased by 5.7 per cent over the year 2011. **Food consumer prices** increased by 5.9 per cent, which was to a large extent attributed to the decline in crops caused by the drought. Producers and processors, however, were unable to increase their sale prices in proportion to the rise of their costs, as the price-reducing effect of retail trade prevailed in reaction to weak domestic demand. The growth of consumer prices showed a slowing trend in the final three months of the year.



Sectoral resources

Land use, farm structure

The decline in the size of agricultural areas, witnessed in previous years, reversed in 2012; these equalled **5,338** thousand hectares in 2012, **800** hectares more than in the previous year. The growth is principally attributable to the increase in the size of arable land and orchards. The vineyard and kitchen garden areas decreased, while the size of grassland remained unchanged. The rate of the decline slowed in relation to vineyards.

The size of agricultural land used by individual holdings significantly increased, while that of economic organisations decreased. As a result, in 2012, 47.2 per cent of agricultural land was cultivated by individual holdings, 39.7 was cultivated by economic organisations, while 13.1 per cent could not be classified for economic purposes.

Land prices and rental fees

There are major differences in the price of arable land classified in the different branches of cultivation. The most expensive areas are vineyards and orchards, while the cheapest areas are grasslands. This is mainly attributable to the high plantation cost of grape and fruit trees and the potentially high production value.

There are major differences in the price of arable land, which account for approximately four-fifths of agricultural land. The most expensive arable land is offered in Tolna, Békés and Fejér counties, while the cheapest ones are in Nógrád County. The difference between prices in the most expensive and the cheapest counties is over two and a half times high.

Size of used agricultural land based on branches of cultivation

(thousand hectares)

Item	2008	2009	2010	2011	2012
Arable land	4,502.8	4,501.6	4,322.1	4,322.3	4,323.6
Kitchen garden	96.1	96.1	81.5	81.5	81.3
Orchard	98.5	98.7	93.7	92.4	92.6
Vines	82.6	82.8	82.8	82.1	81.6
Grassland	1,009.8	1,004.2	762.6	758.9	758.9
Total:	5,789.7	5,783.3	5,342.7	5,337.2	5,338.0

Source: KSH

Land prices based on main branches of cultivation

(HUF/hectare)

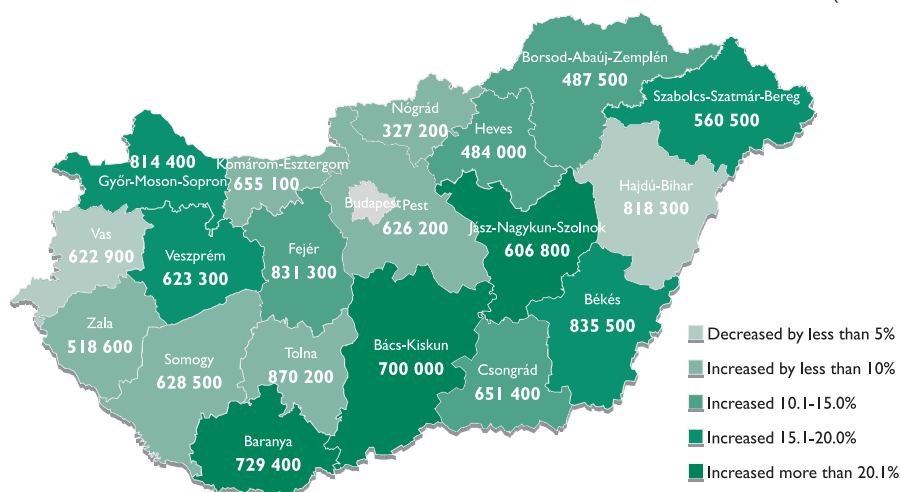
Item	Arable land	Grassland	Vines	Orchard
2009	491,200	242,000	977,300	663,700
2010	519,300	251,600	913,300	721,200
2011	583,700	283,800	1,035,400	729,100
2012*	670,400	320,600	1,275,700	873,300

* Based on preliminary NAV (National Tax And Customs Administration) data.

Source: KSH

Price and price changes of arable land in the counties, 2012*

(HUF/hectare)



* Based on preliminary NAV (National Tax And Customs Administration) data.

Source: KSH



Agricultural production

The natural resources of Hungary are extremely favourable in terms of agricultural production, which offer potential crop yields of excellent quality and large quantity. It has therefore been possible to develop agriculture for a thousand years.

Arable land crop production

Crop yields in 2012 were unfavourable due to the extremely dry weather. The cereal yield decreased by 25 per cent, which was primarily caused by the decline in the maize harvest. There was also a smaller quantity of straw cereals to store in the granaries in comparison to the previous year.

While the year 2010 was characterised by an exceptionally large amount of precipitation in Hungary, the years 2011 and **2012 were characterised by extraordinary drought**. Particularly the first nine months of the year were characterised by an uncommonly low quantity of precipitation. While the drought moderately affected the agricultural sector in 2011, the impact was stronger in 2012. In addition to the lack of precipitation, evaporation caused by steady high temperatures also contributed to the drying out of arable lands. The drought caused serious problems across the country, in an area of approximately 1.4 million hectares, although the drought damage in agricultural areas mostly affected Csongrád, Szabolcs-Szatmár-Bereg and Jász-Nagykun-Szolnok counties.

A total of 10.4 million tonnes of cereal were harvested in an area of 2.758 million hectares in 2012. The harvested area was 1.9 per cent larger than in 2011, but the volume of production declined by 24 per cent and was 21 per cent less than the average of the 2007-2011 period.

A total of 5.6 million tonnes of straw cereals were produced – 1 per cent less than in 2011. Wheat was produced on 1,070 million hectares in 2012, an area 9 per cent larger than in the previous year. 4.0 million tonnes of wheat were put into storage in the granaries; although the quantity was 2 per cent less than in the previous year, its quality was excellent. High quality and

trends on the global market resulted in the steep rise of crop prices on commodities exchanges from July 2012 until the middle of autumn.

The drought caused the largest damage in the cornfields. **The production area of maize was 1.190 million hectares, which is approximately 3 per cent less than in 2011. The harvest of 4.8 million tonnes** was eventually 40 per cent lower than in the previous year. The 4.000 tonne crop average per hectare fell short of the figure for the previous year by 38 per cent. The enormous crop loss was also reflected by the price of crops. On the commodities exchange, their price increased by a rate similar to that of wheat, resulting in HUF 65-70 thousand per tonne forward prices in the second half of 2012. On the physical markets, the price of fodder maize was 16 per cent higher in 2012 than in 2011. Due to the extremely limited funds, the buying-in of crops decreased by 15 per cent in the reference year over the previous year.

In 2012, the main **oilseeds (sunflower and rapeseed)** were harvested **in an area of 780 thousand hectares, indicating a 4 per cent decrease in the area.** The quantity of oilseeds harvested by producers **was 10 per cent less** than in 2011. **Sunflowers were harvested on 615 thousand hectares, the largest area so far.** Due to the drought, however, the harvest was 4 per cent less than in the previous year, totalling **1.3 million tonnes. Rapeseed was harvested on 165 thousand hectares, indicating a crop area decline of approximately 30 per cent.** This is attributable to the fact that the dry weather damaged the fields to such an extent in the early stage of the plant's growth, that farmers removed them in many places. As a result, the volume of production fell by approximately one quarter or 24 per cent. The average rapeseed crop on the remaining fields, however, was 7 per cent higher than in 2011.

Similarly to cereals, the subscription of oilseeds and their derivatives on the commodities exchanges reached high levels in the summer of 2012, but the improving crop prospects, the harvest, the dampening and shifting demand, and worsening investor sentiment resulted in the decline of crop



prices in the second half of the year. The producer price of sunflower seed increased by 14 per cent to HUF 128 thousand per tonne in 2012 over the previous year. The price of rapeseed equalled HUF 140 thousand/tonne, indicating a 17 per cent increase over the year 2011.

Sugar beet was produced in the quantity of **882 thousand tonnes** on 19 thousand hectares in 2012, which is 3 per cent more than in the previous year. The average crop equalled 47.1 tonnes per hectare, which is 6 per cent less than the average figure for the past five years. Sixty-six per cent of sugar beet farmland was concentrated in the Transdanubian area, as the crop is received only by the sugar factory in Kaposvár since 2008. Due to the extreme weather, 548 thousand tonnes of **potato** was harvested in 2012, i.e. 9 per cent less than in the previous year. The potato harvest was smaller in other Member States of the European Union as well, leading to the rise in demand and prices; as a result, producers aimed to sell stored stocks at higher prices.

Horticulture

Owing to the favourable natural resources, Hungary has solid traditions in the growing of vegetables and fruit. There is demand on the European market for Hungarian products that are very rich in taste and flavour.

The year 2012 produced mixed results for farmers in the horticulture sector. Yields declined in the vegetable sector as a result of damage caused by drought, frost and hail, while crop yields moderately improved in fruit production.

Vegetable production

The **cropped area of vegetables** increased moderately in 2012 by 1.3 per cent, but the crop fell by 7.6 per cent due to the frost damage in spring and the drought. Among the main vegetables, only the yield of sweet corn and melon increased by 1.6 per cent and 33.3 per cent, respectively. Hungary and France are the two main sweet corn producers on an EU level. Hungary was the largest exporter in the past years, ranked second to the U.S. Most of the domestic crop was sold as cannery raw material in the preserved product and refrigeration

Crop yields of main vegetables

Item	Vegetable growing				
	2008	2009	2010	2011	2012
Total area (thousand ha)	88	83	68	76	77
Volume of production (thousand t)	1,818	1,614	1,144	1,475	1,363
Of which: Sweet corn	537	422	303	427	434
Tomatoes	206	193	134	163	109
Peppers	148	149	110	118	79
Ground pepper	12	20	15	21	22
Watermelons	224	220	141	203	183
Melons	14	12	9	9	12
Onions	67	61	41	58	57
Cucumbers	55	52	38	36	34
Garlic	5	4	4	7	6
Lettuces	8	8	8	8	8
Cabbage	79	76	57	81	65

Source: KSH

industry, and only a smaller quantity was sold for direct consumption. In contrast, the tomato and pepper crop dropped by roughly one-third.

Fruit production

The cropped fruit area moderately declined due to the spring frost, nevertheless the volume of production exceeded the figure for 2011 by nearly 60 per cent. The increase is primarily attributable to apple, where the volume of production more than doubled (+122.2 per cent). The substantial improvement of the crop is attributable, among other things, to the low base, as the year 2011 produced a very poor crop yield. In addition to apple, plum production surpassed expectations with a

Crop yields of major fruit varieties

Item	Fruit production				
	2008	2009	2010	2011	2012
Total area (thousand ha)	99	96	93	91	91
Total area (thousand ha)	85	84	83	82	81
Volume of production (thousand t)	841	884	766	513	822
Of which: Apples	569	575	497	293	651
Pears	22	32	24	17	15
Sour cherry	68	79	52	62	53
Plums	56	52	71	37	43
Apricots	27	34	27	25	11
Peaches	48	61	53	42	16

Source: KSH



16.2 per cent increase. The crop of other major fruit varieties, however, fell short of the figure for 2011. The downturn was particularly high in relation to apricot (-56.0 per cent) and peaches (-61.9 per cent).

Vine-growing

The winter and spring frost, and the drought caused damage to the vineyards. As a favourable development, the crop suffered less damage in most of the historic wine growing regions. Weather conditions were most adverse in the Kunság, Csongrád and Hajós-bajai wine regions. The vineyard area decreased by 5.3 per cent, while the volume of production fell by 16 per cent in 2012.

Grape crop yields

Item	Vine-growing				
	2008	2009	2010	2011	2012
Total area (thousand ha)	83	82	80	81	82
Total area (thousand ha)	76	76	74	76	72
Average crop (in cropped area, kg/ha)	7,530	7,240	3,990	5,960	4,927
Volume of production (thousand t)	571	550	295	450	356
Of which: for food	17	22	12	15	13
Single filtered wine growing (million litres)	345	334	176	282	..

Source: KSH

Animal production

The stock of ruminants increased in 2012, which is primarily attributable to the favourable market conditions. The number of granivores, however, further decreased under the pressure of rising fodder prices and dry weather.

As a result of the agricultural restructuring programme and the rising price of beef cattle on the market, the **number of cattle increased to 753 thousand in 2012**, indicating a 9 per cent rise over the figure for the year 2011. The decline in its number – lasting several decades – stopped in 2011. Moreover, data for the year 2012 suggest that the sector is in a phase of stable growth. The **stock of cows** increased to 336 thousand, which is **3 per cent higher** than in the previous year. The number of dairy cows dropped, but owing to favourable trends on the foreign market, the num-

ber of beef cattle rose by 7 per cent in comparison to the figure of December 2011.

In line with the trend of recent years, the pig population further declined, equalling 2.956 million pigs, which is 2 per cent less than in the previous year. The number of pigs in individual holdings was 8per cent less in 2012 than in the previous year, and a downturn was observed in corporate holdings. The sow population of 198 thousand fell short of the figure for the previous year by 6 per cent. Due to the contracting supply of domestically produced slaughter pigs, slaughterhouses supplemented domestic supply with imported raw materials. Due to the shrinking of the pig population and the growing pigmeat imports of slaughterhouses (in place of live pigs), fewer pigs were slaughtered in 2012 than a year before.

The pig sector was characterised by rising fodder prices and fluctuating buying-in prices. The producer price of slaughter pigs was HUF 473.5 last year, which is over 17 per cent higher than in the previous year. Prices increased by a slower rate, by 8-11 per cent in other stages of the product chain. As a positive development in the subsequent years, in 2012 the Government adopted the pig strategy, increased animal welfare aid and provided more favourable credit schemes to pig keepers.

The **poultry population decreased** in 2012 **by 8 per cent** to 38.2 million animals. Beyond the rising fodder prices, the sector was also negatively affected by the hot summer, which resulted in more frequent deaths, and the heat contributed to lower prolificacy and slower weight gain. According to official statistics, poultry population data indicated the following at 1 December 2012. The hen population – accounting for 79 per cent of the stock – decreased to 30 million, showing an 8 per cent decline relative to the year 2011. The laying flock population, however, increased by 3 per cent with 12.1 million animals. The turkey population fell by 7 per cent, while the 1.1 million goose population declined by 9 per cent and the 4.2 million duck population decreased by 4 per cent compared to data for the previous year. However, it holds true for all varieties of poultry that the **quantification, comparison of the size of populations in a given month does not reveal the development of annual production**. If the population decreased in December of the reference year in comparison to



December of the previous year, the annual production of slaughter animals could still be higher in relation to the given year. These animals are fattened – differently from large livestock – in multiple rotation, therefore production is adjusted relatively fast to market demand and can accordingly change several times even during the year. Production trends in the poultry sector are well reflected by the figures of the table, indicating that the quantity of slaughter poultry gradually increased during the past 5 years notwithstanding the downturns.

The sheep population reached 1.1 million, which is 66 thousand or 6 per cent more than in the previous year. This indicates a positive development, as the animal population in the sector continuously declined since 2005. The ruminant restructuring programme, launched in 2012, also contributed to the emergence of the positive trend, and the funds available for various purposes – e.g. serving the conservation of indigenous sheep and goat varieties – also provided support in this area. Sheep farmers welcomed continuous demand and steady market prices in 2012 in relation to sheep sales. **The goat population reached 88 thousand animals at the beginning of December 2012, 11 per cent more than in the previous year.**

The Hungarian horse population continuously increased in recent years. The horse population of Hungary equalled 76 thousand on 1 December 2012, 3 thousand horses more than in the previous year. However, the mare population within the horse stock decreased by 1 thousand, equaling 40 thousand mares. Horse meat consumption is not common in Hungary. The government drafted the National Equestrian Programme in 2012,

which is expected to boost the sector. Horses are primarily kept for leisure activity (sport, hobby, tourism) and for gene conservation purposes in Hungary.

Total slaughter animal production declined after 2004; the decline significantly accelerated in 2009 and 2010. Thereafter the production level moderately increased in 2011 and 2012. **Slaughter animal production reached 1.347 million tonnes in 2012, exceeding the figure for the previous year by 14 thousand tonnes or 1.0 per cent.** Slaughter poultry accounted for 52 per cent, slaughter pigs for 38 per cent and beef cattle for 6 per cent within slaughter animal production. The quantity of slaughter poultry increased by 6 per cent over the previous year.

Among **animal products, 1.8 billion litres of cow's milk was produced, 5.0 per cent more than in the previous year; the buying-in of cow's milk rose by 6.9 per cent and the total export of raw milk increased by 12 per cent in one year.** The volume of milk in December and the number of dual-purpose cows increased by 1 per cent and the slaughter of cows rose by 2 per cent; the annual milk yield improved by 3 per cent in one year. The slowdown in the rise of the cow population is also attributable to the moderate increase of cow slaughter.

Farms **produced 2.4 billion hens' eggs, indicating a 4 per cent decrease.** This may be chiefly attributable to the fact that EU regulations were tightened in 2012 in relation to battery cages, which necessitated large scale investments. Producers suspended production, who were unable to convert their cages.

Slaughter animals and animal products

Item	Units of measurement	2008	2009	2010	2011	2012*
Total slaughter animals	thousand tonnes	1,400	1,356	1,329	1,333	1,347
Of which: beef cattle	thousand tonnes	88	80	81	80	77
slaughter pigs	thousand tonnes	620	570	553	544	517
slaughter sheep	thousand tonnes	20	19	19	19	20
slaughter poultry	thousand tonnes	646	660	650	664	705
Fish produce	thousand tonnes	20	20	19	20	19
Cow's milk	million litres	1,792	1,712	1,641	1,667	1,751
Hen's eggs	million pieces	2,879	2,741	2,732	2,458	2,360
Wool	tonnes	4,535	4,483	4,070	3,820	3,820

* Preliminary data.

Source: KSH, AKI



Forestry

The **forest areas are growing each year** in Hungary, hence **the total wood assets are on a continuous rise**. By cautious estimate, the pecuniary value of Hungary's live tree stock exceeds HUF 1,000 billion. Woody biomass has for years played a key role in **renewable energy production** in Hungary. Over half of green electricity production, over 60 per cent of bioenergy used in the heating sector uses wood won from Hungarian forests. Hungarian forests bind a total of approximately 3,000 Gg⁴ CO₂ (Gg: gigagramm, 1 Gg=1000 tonnes) each year, according to the greenhouse gas inventories prepared for the Kyoto Protocol since 2008.

62.7 per cent of the total forest area **serves economic purposes**, 36.2 per cent **serves protection purposes** and 1.1 per cent serves **public welfare** (health/social, tourism, education) purposes. The ratio of protected forests has been growing for years, reducing the ratio of economic forests.

An area of 2,054 thousand hectares in Hungary is under forestry, which equals more than one-fifth of total land in Hungary; 94 per cent (1.9 million hectares) of this area has trees. On the basis of the area covered with trees, **afforestation in Hungary equals 20.7 per cent. The forest is the second largest branch of cultivation in Hungary after arable land**. In contrast with Europe in general, most of the total forest area in Hungary is made

up of **forestry associations with deciduous tree varieties**. Deciduous forests account for 88.8 per cent of the area, while the area of pine forests is shrinking. Indigenous main forest species represent 57.3 per cent of forests. Acacia (24.0 per cent) and poplars (6.4 per cent) are prominent among non-indigenous forest species.

State forestry is carried out at good professional standards. The 22 state forestry holdings, operating in the form of private limited companies, have carried out the protection and public benefit functions of forests under their management at high standards.

The standard of the management of forests in private and public ownership is very heterogeneous. The approximately 37 thousand forest holders typically manage small scale areas (approximately 20 hectare average area managed) with authorised professional staff. **The small scale forest holders operate with low levels of interest and at average professional standards**.

Wood production was the most important source of revenue in the sector **in 2012** as well. Forest holders carried out wood production activity on approximately 180 thousand hectares of forest, **logging approximately 7.6 million cubic metres of wood**. This quantity is adequate for long-term forestry.

Game management and hunting

The number and variety of **large game** in Hungary further increased; production exceeded 300 thousand animals. The growing trend is continuing; particularly the rise in the number of wild boars is a cause for concern. According to experts, the reason behind is the development of favourable life conditions for wild boars, i.e. the expansion of forest area and large-scale farming. At the same time,

hunting as a hobby is shrinking, hence the number of hunters is decreasing.

The **small game population** has basically remained unchanged; its unfavourable status seems to become permanent. As opposed to expectations, the hare population did not decline as a result of high precipitation in 2010; approximately 100 thousand hares were produced. Pheasant pro-



duction is mainly based on bred wild game birds. Approximately 300-400 thousand pheasants are shot each season.



Number of large game species

(shot and caught alive, thousand)

Item	2008	2009	2010	2011	2012
Red deer	36.2	39.3	41.1	48.2	48.8
Fallow deer	9.7	10.5	10.8	11.7	12.0
Roe deer	86.1	89.8	88.6	94.3	95.9
Mouflon	2.9	3.1	3.4	3.5	3.8
Wild boar	94.4	111.2	112.4	130.0	157.1
Total	229.0	254.0	256.0	288.0	318.0

Source: National Game Management Database

Number of small game species

(shot and caught alive, thousand)

Item	2008	2009	2010	2011	2012
Hares	132	138	92	134	112
Pheasant	421	378	308	379	329

Source: National Game Management Database

Fisheries

The production of Hungary's water farms and intensive farms fell short of the results of 2011, and the same applies to fishing in natural waters. **The production of food fish in Hungary yielded 21.8 thousand tonnes in 2012, which is 3.7 per cent less than in the previous year.** Per capita fish consumption was 3.6 kg/person in 2012.

With the exception of the year 2011, the production of food fish is indicating a declining trend. Water farms and intensive fish production farms produced 21.1 thousand tonnes of fish in 2011, with **15.5 thousand tonnes of food fish**, which indicates a decrease of 5.1 per cent over the previous year. The production of food carp has shown a decline for several years, indicating a decline in 2012 as well, after the exceptional year of 2011. With regard to predatory fish, the production of catfish increased, while that of pike and walleye decreased over the previous year. The fishing of pike and pikeperch declined by 38 per cent and 13 per cent, respectively, but that of catfish rose by 20 per cent.

The water farms fully satisfy domestic demand. The production of each fish species satisfies de-

Key fish production data

Item	2008	2009	2010	2011	2012
Water farms and intensive farms					
Area of water farms (hectares)	24,248	23,967	23,639	24,364	26,083
Food fish production (tonnes)	15,687	14,825	14,244	16,348	15,512
Natural waters and reservoirs					
Utilised area (hectares)	139,515	140,647	140,402	140,989	141,237
Total catch (tonnes)	7,394	6,364	6,216	7,047	6,717
Of which: food fish (tonnes)	7,027	6,098	6,006	6,790	6,294
Total food fish (tonnes)	22,714	20,923	20,250	22,654	21,806

Source: AKI and National Fisheries Database

mand. **Carp** remains the main fish species produced on water farms, **accounting for 76 per cent of food fish production.** Producers commonly sell live carp, African catfish, bighead carp, grass carp and predatory species on the Hungarian markets. **Hungary's fish exports significantly increased in 2012 in terms of both quantity and value.**



The food industry

The performance of the food industry reveals a positive picture in the past two years, as both production and sales significantly improved after the downturn caused by the economic crisis. This favourable trend is mainly attributable to growing exports, although domestic sales also increased in 2012, reversing the trend of recent years.

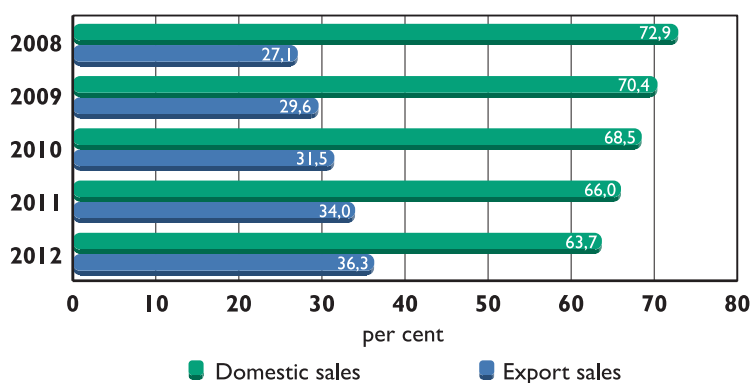
Production and sales in the food industry

(HUF billion, change over the previous year, per cent)

Item	2008	2009	2010	2011	2012
Production value at nominal value	2,103.6	2,070.4	2,031.6	2,285	2,524.1
Change in volume of production value	-6.7%	-2.0%	-0.7%	3.1%	4.4%
Domestic sales at nominal value	1,539.4	1,463.1	1,415.3	1,493.7	1,594.7
Change in volume of domestic sales	-8.3%	-4.6%	-2.2%	-2.5%	1.3%
Export sales at nominal value	571.0	614.5	649.9	769.8	907.9
Change in volume of export sales	-1.1%	4.8%	7.8%	6.7%	10.4%
Total sales at nominal value	2,110.4	2,077.6	2,065.3	2,263.5	2,502.6
Change in volume of total sales	-6.5%	-2.0%	0.7%	0.4%	4.5%

Source: KSH

Ratio of domestic and export sales within total sales in the food industry



Source: KSH

The food industry primarily serves the satisfaction of domestic demand; over 60 per cent of total sales are domestic. At the same time, the ratio of export sales has significantly increased in recent years. As a result, over one-third of total sales were exports in 2012.

The ratio of food production equalled 85.7 per cent, beverage production equalled 13.4 per cent in 2012 within the production value of the sector, while the production of tobacco products only accounted for 1.0 per cent. These ratios did not change significantly in comparison to the year 2011.

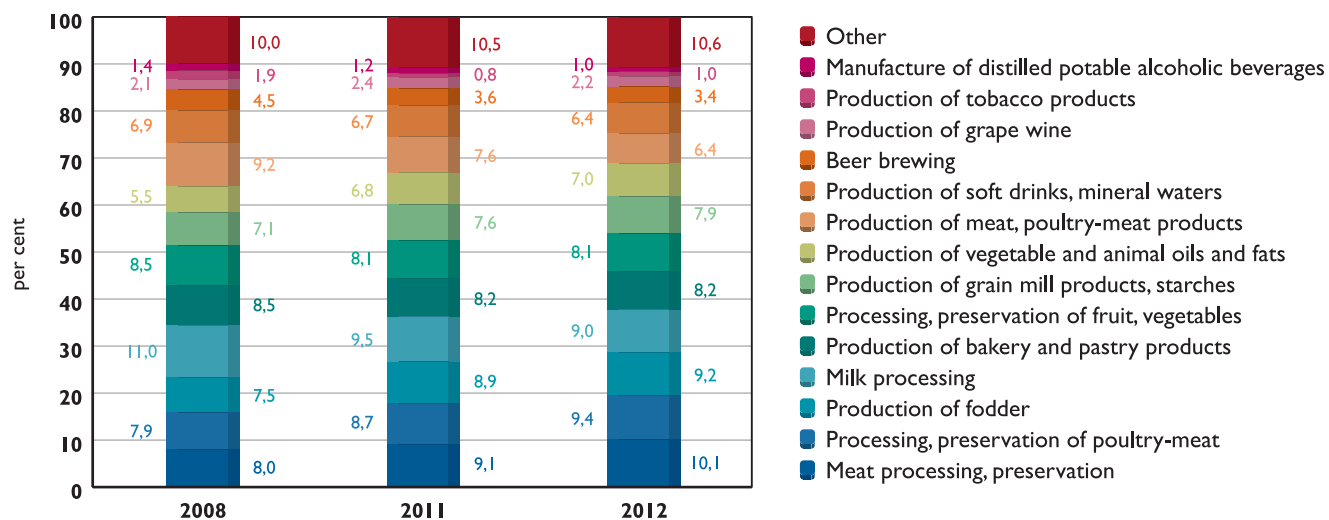
Production in the food industry is highly concentrated, as the five largest branches account for approximately half of production. Approximately one quarter of the sector's production value is related to the three meat segments. The production ratios of fruit and vegetable processing, preservation, milk processing, and the production of grain mill products, fodder and bakery ware, pastry goods are also considerable.

As a favourable development, production and sales volumes have increased in most food industry segments. The processing, preservation of large weight meat, the processing, preservation of poultry-meat, the production of plant and animal oil, the production of grain mill products, starch, the production of bakery ware and pastry goods, and the improved performance of fodder production was substantial.

The volume of production and sales in 2012 fell short of the figures for the previous year only in three segments: production of meat and poultry-meat products, production of wine from grape and the production of distilled alcoholic beverages.



Ratio of key food industry branches within the production value



Source: KSH

Production and sales in the food industry in 2012

(in HUF billion, at nominal value, change over the previous year, per cent)

Item	Domestic sales revenue from industrial activity	Export sales revenue from industrial activity	Total net sales revenue from industrial activity	Production value of industrial activity	Ratio of export sales	Volume index of domestic industrial sales	Volume index of export industrial sales	Volume index of total industrial sales	Volume index of industrial production
Production of food products, beverages, tobacco products	1,594.7	907.9	2,502.6	2,524.1	36.3	101.3	110.4	104.5	104.4
Food production	1,313.1	831.0	2,144.0	2,162.0	38.8	102.0	110.2	105.0	105.0
Processed and preserved meat	157.6	95.2	252.8	254.2	37.7	116.0	98.8	108.9	110.0
Processed and preserved poultry meat	138.4	94.8	233.1	237.5	40.7	104.4	115.9	108.8	110.6
Meat and poultry meat products	118.5	44.8	163.3	162.1	27.4	89.8	78.0	86.2	85.7
Processed and preserved fruit and vegetables	73.4	124.5	197.9	205.6	62.9	105.0	107.3	106.4	104.3
Vegetable and animal oils and fats	69.1	102.9	172.0	175.8	59.8	89.4	122.3	106.6	109.1
Milk-processing	191.3	35.5	226.8	227.6	15.7	101.8	102.7	101.9	102.1
Grain mill products, starches and starch products	120.4	77.7	198.1	199.5	39.2	101.6	121.0	108.4	108.7
Bakery and pastry products	173.8	32.6	206.4	207.3	15.8	104.9	116.1	106.5	107.1
Other food products	121.5	139.7	261.3	259.1	53.5	96.7	121.5	108.5	104.8
Prepared fodder	148.9	83.3	232.2	232.9	35.9	105.4	108.7	106.5	107.2
Beverages	273.1	61.0	334.1	337.0	18.3	98.2	103.3	99.1	99.2
Manufacture of distilled potable alcoholic beverages	22.0	2.2	24.3	24.4	9.1	87.2	60.4	83.7	85.9
Wine from grape	38.5	14.3	52.7	55.2	27.1	98.2	76.7	91.2	93.6
Beer	82.6	3.5	86.1	86.3	4.1	102.6	78.0	101.3	102.0
Soft drinks, mineral waters	128.0	33.2	161.2	161.7	20.6	98.1	111.5	100.5	100.2
Tobacco products	8.5	15.9	24.5	25.2	64.9	102.2	176.6	140.8	135.1

Source: KSH



Agricultural foreign trade

Hungary's foreign trade relations further expanded in 2012. Agricultural foreign trade relations with countries increased from 156 countries in 2011 to 160 in 2012, while the value of trade exceeded 1 million euro with 84 countries, rising from 77 countries in 2011. Hungary's key trade partners did not change over the year 2011. The share of Germany, Slovakia, Romania, Austria, the Netherlands, Italy, Poland, Czech Republic and France in Hungarian agricultural foreign trade approximated 75 per cent.

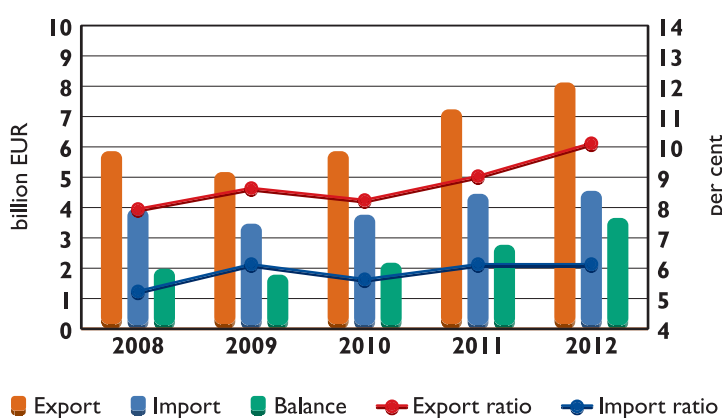
Most of Hungary's agricultural foreign trade was conducted with Member States of the European Union in 2012 as well. The EU accounted for 84 per cent and 91 per cent of export and import values, respectively. The value of exports to EU countries increased moderately stronger than total agricultural exports (by +13.3 per cent), while imports slightly fell short (-0.5 per cent) of the value for the year 2011. The 2,722 million euro value of the balance was 818 million euro higher than in the previous year. The export value of agricultural products exported to old Member States of the EU increased by 20.5 per cent, while the import value decreased by 3 per cent. The value of agricultural exports to new Member States increased by 5 per cent, while the value of imports exceeded the figure for the previous year by 4 per cent.

Exports to non-EU countries accounted for 8 per cent, with the value of agricultural and food imports from these countries increasing by 13 per cent; the 889 million euro balance was 5 per cent higher than in 2011.

In 2012 the value and balance of the foreign trade of agricultural and food products significantly exceeded the value for 2011, which was earlier regarded as a record high, further strengthening the macroeconomic relevance of agricultural foreign trade. Agricultural and food exports and imports amounted to 8.1 billion euro and 4.5 billion euro, respectively. The value of exports increased by 12.4 per cent, while the value of imports slightly exceeded the level reached in the previous year (+0.6 per cent). As a result, agricultural foreign trade booked a 3.6 billion euro surplus in 2012, which is 31 per cent, or 0.9 billion euro higher than in 2011.

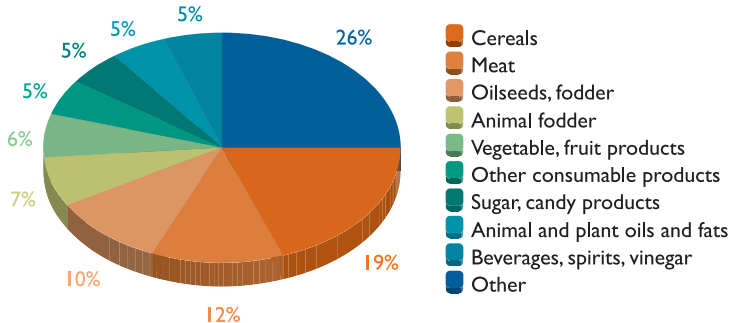
The structure of Hungarian agricultural exports based on product groups shows concentration; the share of the 5 largest product groups in terms of value – cereals, meat, oilseeds, animal feedstuffs and vegetable/fruit products – accounted for 54.8 per cent of total agricultural exports in 2012. The rate of concentration moderately increased over the year 2011, but there is a downward trend in the context of the past

Agricultural foreign trade in the 2008-2012 period



Source: KSH

Ratio of key exported goods within agricultural exports in 2012

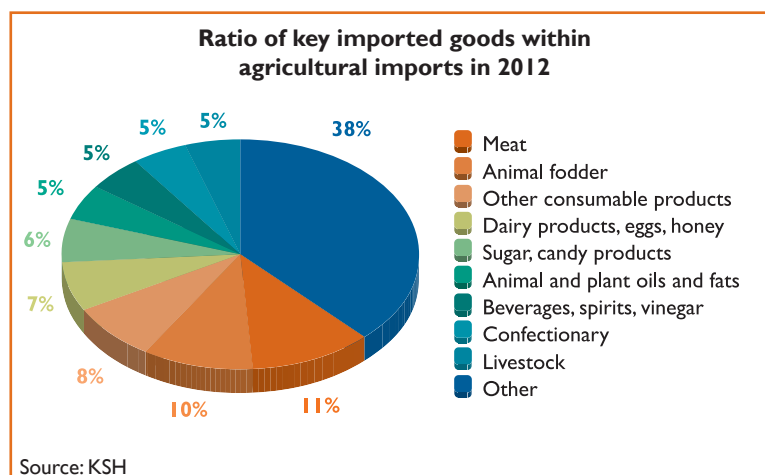


Source: KSH



five years. The share of the five largest product groups equalled 53.9 per cent in 2011 and 58.2 per cent in 2008.

Hungary's exports are less concentrated. **The ratio of the 5 product groups with the highest import value** – meat, animal fodder, different consumable products, dairy products, eggs, honey, and sugar, candy products – **accounted for 43 per cent of total agricultural imports in 2012**. In the past five years, the concentration of imports has not changed significantly, approximating 42-43 per cent.



Funding – national implementation of CAP regulation

The original budgetary target of agricultural and rural development funds equalled HUF 627.2 billion in 2012; funds amounting to **HUF 648.9 billion** were disbursed by the end of the year. The ratio of EU financing continuously increased in recent years, while the ratio of funding covered with national budgetary funds shows a declining trend. Twenty-one per cent (21 per cent) of subsidies were financed with national funds, while 79 per cent was financed with EU funds (European Agricultural Guarantee Fund – EAGF, European Agricultural Fund for Rural Development – EAFRD, European Fisheries Fund – EFF).

In 2012, **HUF 71.1 billion was spent** on national funding. National funds were disbursed under subsidy titles authorised by the Commission (agricultural and general de minimis, block exemption, other transitional).

HUF 244.7 billion was spent on measures of programmes implemented under the co-financing of the European Union and the national budget in 2012. Most of the amount (88.8 per cent) served

Disbursement of direct subsidies in 2012	
(HUF million)	
Item	Amount of subsidy
Area payment	285,782.8
Subsidy regulated with dried fodder quotas	137.0
Appropriated sugar subsidy related to area payment scheme	12,149.0
Appropriated vegetable-fruit subsidy related to area payment scheme	1,344.8
Raspberry and strawberry subsidy for processing industry	5.8
Single and special dairy subsidy	12,739.0
Restructuring of vegetables/fruit and tobacco	9,104.6
Total:	321,263.0

Source: AKI Financial Policy Department on the basis of VM data (Ministry of Rural Development)

the measures of the Darányi Ignác Plan (former New Hungary Rural Development Programme).

Area payments and other direct payments accounted for most of agricultural subsidy financed directly by the EU and the European Agricultural



Guarantee Fund (EAGF), while a smaller portion was funded from the market. Of the total payment of **HUF 333.1 billion**, HUF 321.3 billion equalled direct payments and HUF 11.9 billion equalled the amount of market and intervention funding.

In 2012, too, the disbursement scheme of the **single area payment scheme (SAPS)** was characterised by the transition to more evenly paced disbursement. Payments equalling

HUF 285.8 billion were made under this title; this sum includes payments brought forward from the year 2011 and unpaid amounts from previous years, but excludes the portion of 2012 SAPS funds brought forward to 2013. The European Union provided **HUF 35.5 billion** in funds for **appropriated and special** subsidies related to area payments. The appropriated funds equal HUF 13.6 billion, while special funds amounted to HUF 21.84 billion.

Agriculture and rural development subsidies

Name of appropriation	Actual payment in 2012		
	National	EU	Total
National subsidies	71,074.9	..	71,074.9
Animal production	906.2	..	906.2
Forest renewal	163.7	..	163.7
Afforestation, forest structure transformation, planting	354.6	..	354.6
Funding of sustainable forest management	8.7	..	8.7
Development funds	61.6	..	61.6
Current expenditures and income subsidies	58,357.1	..	58,357.1
National agricultural damage control	4,224.3	..	4,224.3
Operational funding of small forest railways	0.0	..	0.0
Animal and crop indemnification	1,461.5	..	1,461.5
Exchange rate risk and expenditures not financed by EU	5,537.2	..	5,537.2
Subsidies operated with EU co-financing	65,089.3	179,576.1	244,665.4
National Apiculture Programme	568.2	568.2	1,136.4
"Drink milk!" programme	1,432.4	403.3	1,835.7
Funding of special associations	2,148.4	4,594.7	6,743.1
Funding of the prevention and elimination of certain animal disease	513.7	1,237.2	1,750.9
VAT cover for EU programmes	2,385.7	..	2,385.7
School fruit programme	424.4	944.5	1,368.9
National Diversification Programme	2,362.5	6,086.2	8,448.7
New Hungary Rural Development Programme (ÚMVP)	54,073.6	163,280.2	217,353.8
Fisheries Operational Programme	841.6	2,461.8	3,303.4
National Rural Development Plan	298.9	..	298.9
SAPARD measures	39.9	..	39.9
Funds directly disbursed by the EU	0.0	333,126.2	333,126.2
Market measures-foreign markets	..	375.2	375.2
Market measures-domestic market	..	8,408.0	8,408.0
Market measures-intervention	..	3,082.1	3,082.1
Single area payments (SAPS)	..	285,782.8	285,782.8
Other direct SAPS funds (special milk, ruminant restructuring aid)	..	35,478.1	35,478.1
Grand total	136,164.2	512,702.3	648,866.5

Source: Ministry of Rural Development, Department of Agricultural Economics

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