

## Performance of agriculture, 2016 (Economic accounts for agriculture, 2016)

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### Summary

The output and gross value added of agriculture have been rising since 2012 at current prices, the output approximated 2.6 thousand billion forints and the gross value added 1.1 thousand billion forints in 2016. The volume of output expanded by 9.3% compared to a year earlier, which was dominantly influenced by a growth in the production of cereals and industrial crops. The volume of livestock production went slightly down. The volume of expenditure and income increased, while the amount of subsidies was practically unchanged compared to one year earlier. Expenditure on paid labour force has risen for years, the volume of total labour input has decreased. The agricultural output of the European Union somewhat lessened according to preliminary data, the growth of livestock production could not offset the decrease of crop production.

### Crop production and cattle stock grow, number of pigs decreases

The value and the volume change of agricultural output can be determined based on the observation of annual harvest results. The production of major crops was typically higher in 2016 than a year earlier, out of the main animal species the cattle stock went up, while the number of pigs decreased. Out of animal products both cow's milk and hen's eggs production fell.

16.6 million tonnes of cereals were harvested from 2.6 million hectares in 2016. The harvested area was reduced compared to 2015 and was also lower than the average of the preceding five years. The production was up by 18%, which was mainly owing to an outstanding (32%) growth in the production of maize (8.7 million tonnes). 5.6 million tonnes of wheat were harvested, 5.1% more than in the previous year from a 1.5% larger area

(1 million hectares). The harvested volume of sunflower and rape (1.9 million and 0.9 million tonnes respectively) resulted in a record production, and both crops were harvested on a larger area of 886 thousand hectares in total. 1.1 million tonnes of sugar beet were produced, 23% more than in the previous year. The harvested production of potatoes was 429 thousand tonnes, lower than ever before. The volume of vegetables increased, more than 1.6 million tonnes were produced. The volume of fruits (749 thousand tonnes) was lower than in the previous year, 2.8% less apples (497 thousand tonnes) and practically the same volume of grapes (476 thousand tonnes) were produced as in 2015.

The cattle stock continued to rise, farmers held 3.9% more animals (852 thousand heads) in December 2016 than one year earlier. The pig stock fell by 7.0%, it was 2.9 million heads. The poultry stock was reduced slightly, by 0.4%, the total number of animals was 40.2 million in December 2016.

The total weight of animals for slaughter slaughtered in 2016 was 4.0% higher than in 2015, the total volume approximated 1.6 million tonnes. The volume of pigs for slaughter (596 thousand tonnes) rose by 1.5% and that of poultry for slaughter (830 thousand tonnes) and cattle for slaughter (92 thousand tonnes) by 6.0% each. Out of the main animal products cow's milk and hen's eggs production went down by 1.2% and 1.1%, respectively, compared to a year earlier. The quantity produced was less than 1.9 million litres in the case of the former and somewhat more than 2.5 billion pieces in the case of the latter.

### Value of output at current prices increases

The total gross output of agriculture was 2,588 billion forints at current basic prices in 2016 according to the economic accounts for agriculture (EAA), 4.1% more than in 2015.

An output of 1,562 billion forints was generated in the case of crop and horticultural products, which was 7.6% more than in the previous year. This value amounted to 692 billion forints for cereals and to 380 billion forints for industrial crops. Out of the latter the output of sunflower, representing significant weight, was 218 billion forints and that of rape 103 billion forints. Fresh vegetables contributed by 182 billion forints, and fresh fruits, grapes and wine by 153 billion forints to the total output.

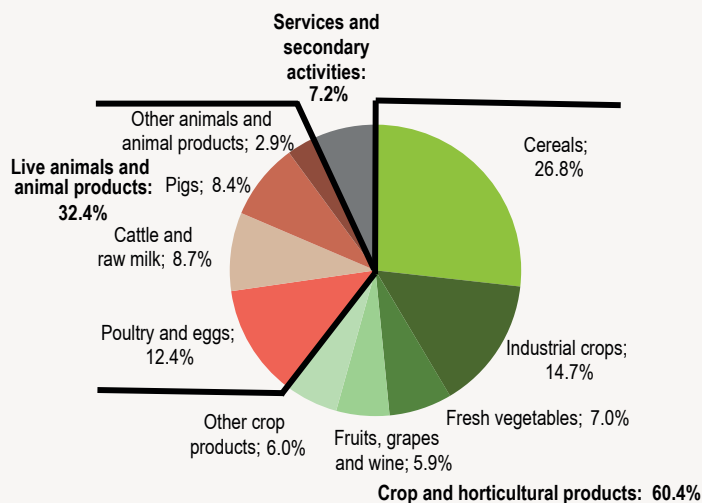
The generated output of live animals and animal products was 839 billion forints, less than in the previous year. The output of live animals amounted to 604 billion forints (within which that of poultry to 267 billion forints and the output of pigs to 219 billion forints) and that of animal products to 235 billion forints (out of which the output of milk to 142 billion forints and that of hen's eggs to 53 billion forints).

The value of agricultural services provided to producers was 131 billion forints and that of inseparable non-agricultural secondary activities – such as the processing of meat, milk, fruits and vegetables – 56 billion forints. These latter represented merely 2.2% of the total gross output.

The share of crop production was 60% and that of live animals and animal products 32% in total agricultural output, there was no change compared to the average of the years 2011–2015.

Figure 1

**Distribution of gross agricultural output, 2016<sup>+</sup>**  
(at current basic prices)

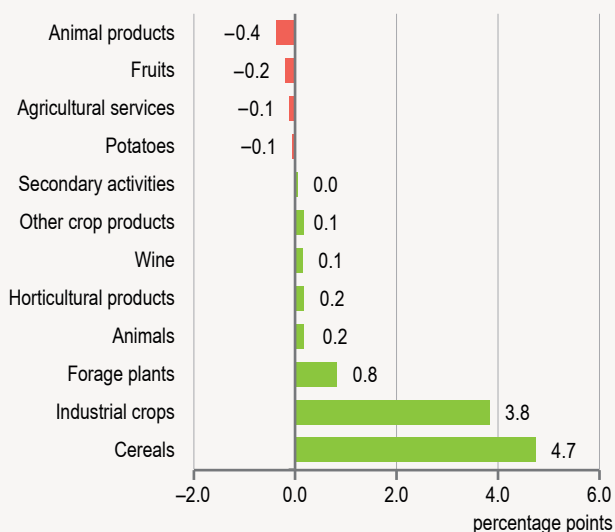


**Crop production raises, livestock production lowers volume of output**

The volume of the total gross output of agriculture (its value at previous year's prices) was up by 9.3% in 2016: crop production raised, while livestock production slightly lowered it. The most significant effects were those of cereals and industrial crops production, which increased the output by 4.7 and 3.8 percentage points respectively.

Figure 2

**Contribution to change in volume of output, 2016**



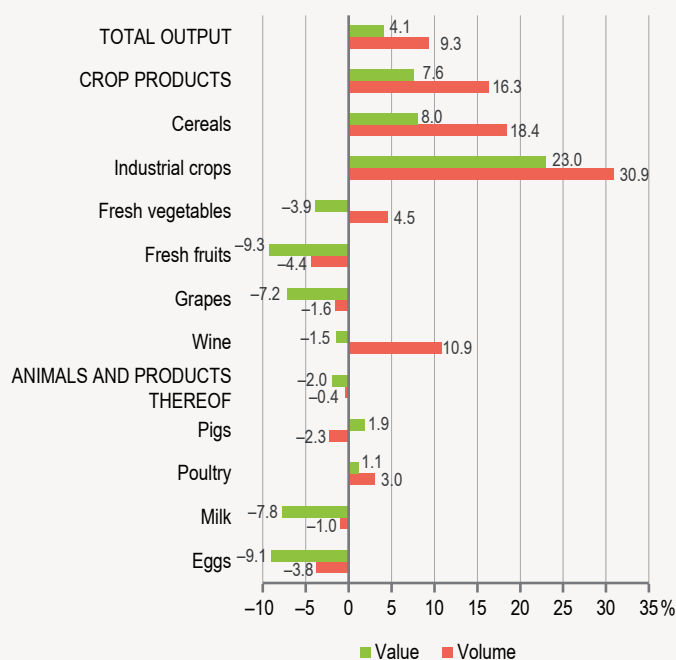
The volume of the output of crop production rose by 16%, which was dominantly influenced by a 31% expansion in the production of industrial crops and an 18% growth in that of cereals, as well as by favourable weather conditions. The volume of maize rose by 33%, that of sunflower by 27%, the volume of rape by 56% and that of sugar beet by 23%. Out of cereals, the volume of wheat and barley went up, that of oats and rye lessened and the total output of cereals grew by 18%. The volume of horticultural products increased by 1.9%, while that of fruits was down by 3.6% and the volume of potatoes by 5.1%.

The production of live animals and animal products went slightly down (by 0.4%) in 2016. The output of poultry and cattle rose, while that of pigs as well as of milk and eggs out of the most important animal products was reduced.

The volume of agricultural services provided to other producers decreased, while that of non-agricultural secondary activities, inseparable in holdings, went up.

Figure 3

**Value and volume change of output compared to previous year, 2016**



**Volume and value of expenditure both rise**

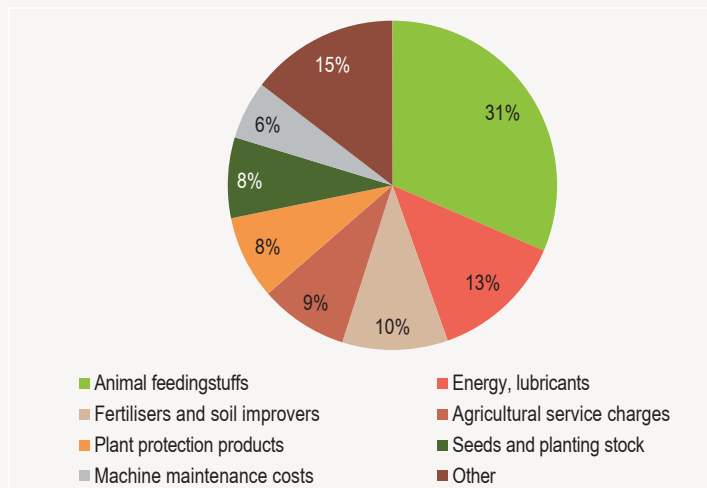
The total output of agriculture provides information on the production of the division, at the same time, use is reported on by expenditure, i.e. intermediate consumption, which covers the value of all goods and services used by holdings during the production process. Intermediate consumption, devoted to the production of products and the provision of services, was 1,513 billion forints (at market purchasers' prices) in 2016, 2.3% more than one year earlier.

The volume of expenditure expanded by 4.3% compared to 2015. Out of major items the use of fertilisers increased by 13%, the use of feedingstuffs by 3.5% and the use of plant protection products by 1.5%, agricultural service charges declined by 2.0% and expenditure on energy and lubricants by as much as 3.5%.

Making the analysis from 2000, it can be stated that the share of expenditure on crop production in total intermediate consumption went up. The weight of fertilisers, plant protection products and seeds was considerably higher than earlier on. By contrast, the share of animal feedingstuffs in the total amount decreased.

Figure 4

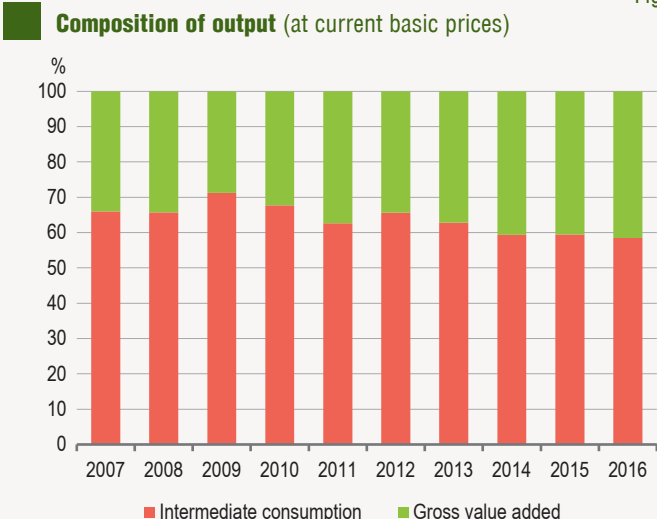
**Composition of intermediate consumption, 2016**  
(at current basic prices)



Gross value added, calculated as the difference between output and intermediate consumption, was 1,074 billion forints at current prices in 2016, 6.6% more than in the previous year, its volume going up by 17%. The share of gross value added in total output came to 42%, i.e. an expenditure of 58 forints was needed for an output of 100 forints. This proportion was higher than the average of the past five years.

According to preliminary data on national accounts<sup>1</sup>, “agriculture, forestry and fishing” section accounted for 4.4% of the total gross value added of the national economy in 2016.

Figure 5



### Income increases, labour input decreases

Income defined in line with the requirements of the economic accounts for agriculture is different both in terms of concepts and contents from the one used in everyday life. It is accrual-based on the one hand, i.e. is related to a particular period of accounting, irrespective of the realisation of a part of revenues only at a later date in financial terms. On the other hand, it contains the income, too, from which households benefit by consuming own-produced agricultural products (or food produced with their home processing).

Figure 7 presents gross value added and other items increasing income as resources of income. (Gross value added at producer prices is completed

by subsidies on products to get the value at basic prices, the amount of other subsidies on production – reduced by taxes on production – is not included in output, it directly increases income.)

The net amount of subsidies on production reached 515 billion forints in 2016, 2 billion forints more than in the previous year. Its composition remained unchanged. The substantial change in its structure in 2015 resulted from the modification of the instruments of agricultural subsidies. Following EU accession the proportion of subsidies related to products (thus increasing gross value added) was decreasing, from 44% in 2004 to merely 6.6% in 2014. Other subsidies, with a growing share, not related to products (e.g. subsidies on land or for rural development, which enhance factor income) gradually rose in the meantime. However, subsidies on products increased in significance from 2015 again. This was due to member states' higher degrees of freedom in the Common Agricultural Policy (CAP) in force from that year, and to Hungary being able to completely use the available framework of subsidies related to production. Subsidies on crop production as well as on livestock production rose several times higher compared to earlier years.

Figure 6

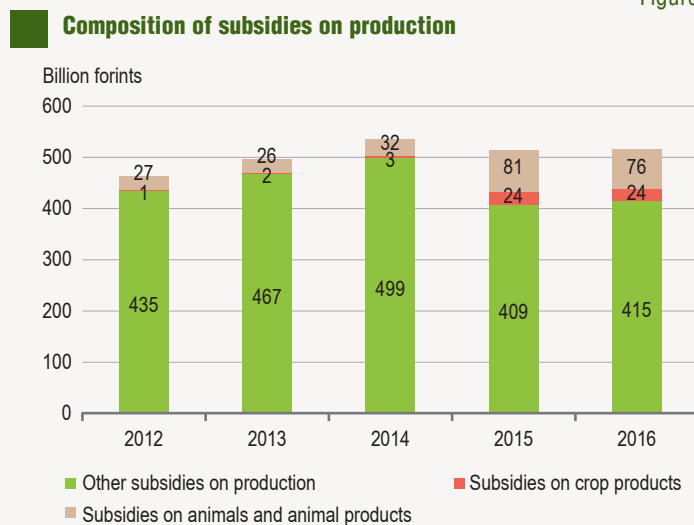
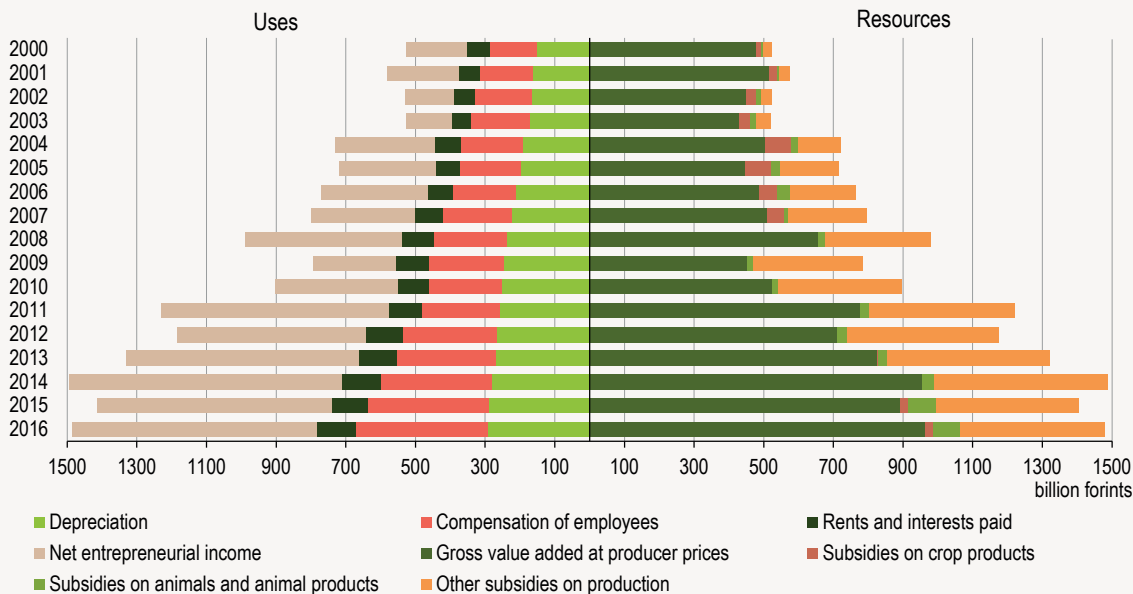


Figure 7

### Resources and uses of income



<sup>1</sup> The economic accounts for agriculture (EAA) can be well used to examine the performance and structure of agriculture, however, are not suitable for comparison with other sections of the national economy, since EAA is an activity-based observation, which observes holdings above a determined holding size irrespective of their principal activity. It is the system of national accounts that is suitable for the comparison, which system explores data on enterprises registered in a particular section and makes them comparable with the rest of the sections. See methodological notes.

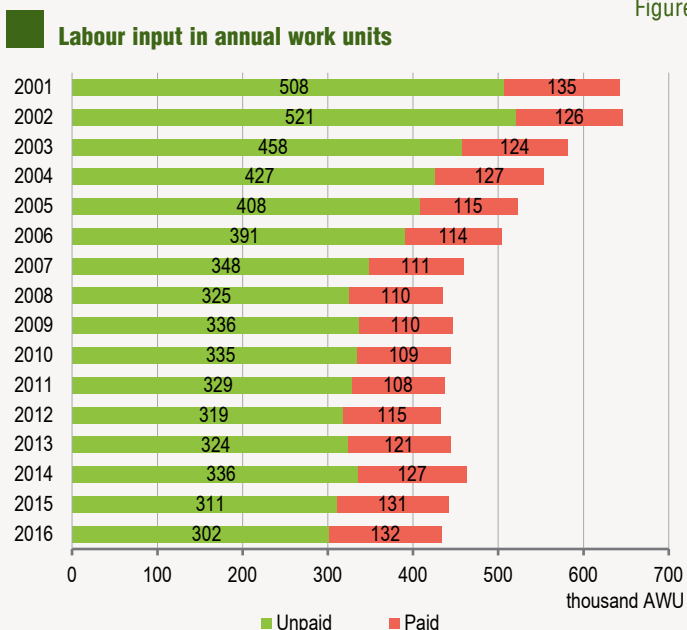
Factor income (income on land, capital and labour force used) changed in the past few years mainly depending on the yields and product prices of crop production, which largely influenced the development of entrepreneurial income, too. In contrast, costs on the uses side (wages, rents and interests) and the amount accounted for depreciation fluctuated to a lower extent. Factor income was 1,190 billion forints in 2016, 6.2% higher than in the previous year.

Net entrepreneurial income is of a mixed character, since it shows the counter-value of the work of the holder and his/her family (unpaid labour force) and returns on the land and capital belonging to the holding in total. Its value was up by 4.3% in 2016, it totalled 702 billion forints.

With our EU accession the proportion of subsidies within the income of agricultural entrepreneurs increased. The fluctuation of output, depending on the weather, considerably influences the development of income, too. The role of subsidies in the composition of income declines in years with good yields. This proportion was 73% in 2016, three percentage points lower than in 2015, a year with less good production.

Labour input – expressed in annual work units (AWU)<sup>2</sup> – went down by 1.7% compared to the base. Expressed in full time, the labour input was equivalent to the agricultural activities of 434 thousand people. The input, decreasing continuously earlier on, stagnated in the last years. Unpaid labour input (302 thousand AWU) continued to fall, it was down by 2.9% in 2016 compared to the previous year. However, paid labour input has been rising since 2012, it totalled 132 thousand AWU in 2016. It can be concluded that farmers substitute a part of the declining unpaid labour by paid input. Agricultural producers paid 378 billion forints to their employees in 2016, 8.5% more than in 2015.

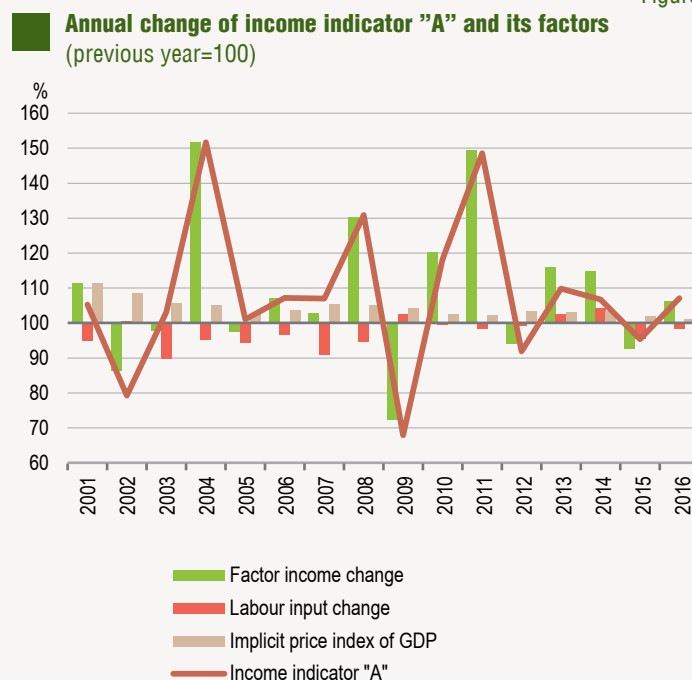
Figure 8



One of the most important purposes of EAA is to measure agricultural incomes and their changes. Eurostat defined three income indicators to examine the performance of member countries compared to one another and changes over time. The most frequently used of these is

real income from agricultural activities per full-time worker (indicator "A"). Indicator "A" was up by 7.0% in 2016 compared to the previous year.

Figure 9



### Regional economic accounts for agriculture

The agricultural area size and the production endowments of planning and statistical regions are very different, hereby their output, too, shows an uneven picture. Relative to its agricultural area Southern Transdanubia has a considerably higher share in the national output of cereals, Southern Great Plain and Central Hungary in the output of horticultural products, grapes, wine and fruits, and Central and Western Transdanubia and Northern Great Plain in the output of live animals and animal products.

The role of the regions in the Great Plain, having the largest areas, is outstanding in agricultural production: Northern and Southern Great Plain accounted for nearly the half of the total output at current basic prices, by contrast, 6.9% of the output came from small-area Central Hungary and 8.1% from Northern Hungary in 2016.

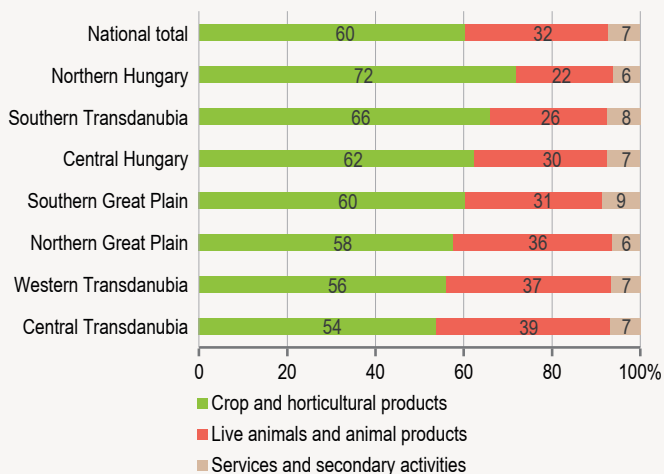
Based on the distribution of crop production, livestock production as well as services and secondary activities there is a considerable difference among regions. The proportion of crop production was substantially higher than the national average (60%) in Northern Hungary and Southern Transdanubia, while the weight of livestock production was above the average (32%) in Central and Western Transdanubia as well as Northern Great Plain.

Production intensity (output per hectare of agricultural area) rose by 5.7% at national level, consistently with the rise of output and the stability of agricultural area. The intensity was above the average in Southern Great Plain and Central and Western Transdanubia and was substantially lower in Northern Hungary.

<sup>2</sup> One AWU is equal to the volume of time worked in a holding over one year by one person employed full time in agriculture (1,800 working hours). This way of accounting also takes into consideration work completed in a broken period or seasonally.

Figure 10

**Distribution of gross output of agriculture by region, 2016**



**Hungary's position in EU agriculture**

Though member states prepare and send the finalised EAA data to Eurostat uniformly, the data for the countries were not yet accessible at the time of the preparation of the present publication, so preliminary information was available for comparison.

Figure 12

**Volume and price changes of agricultural output in the European Union compared to previous year, 2016+**

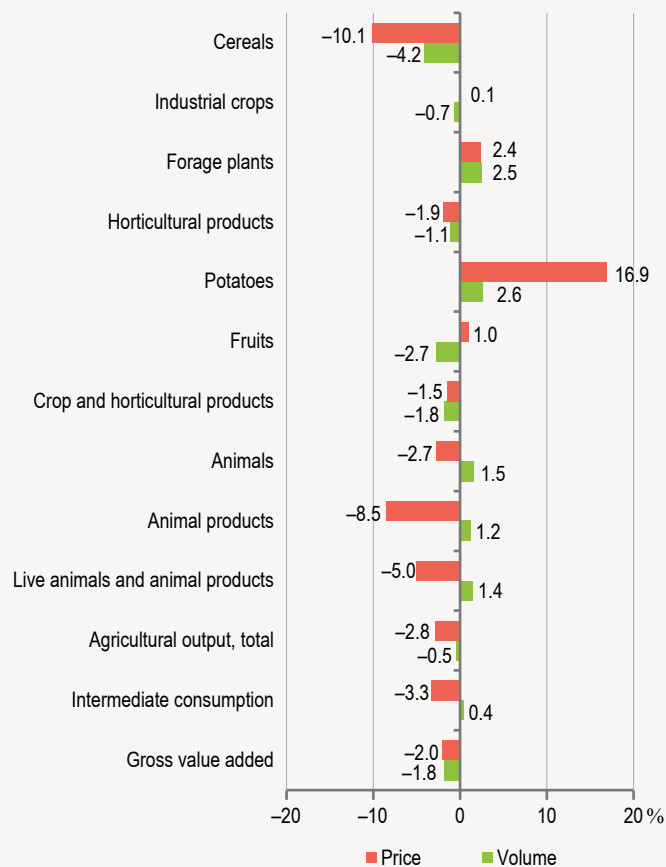
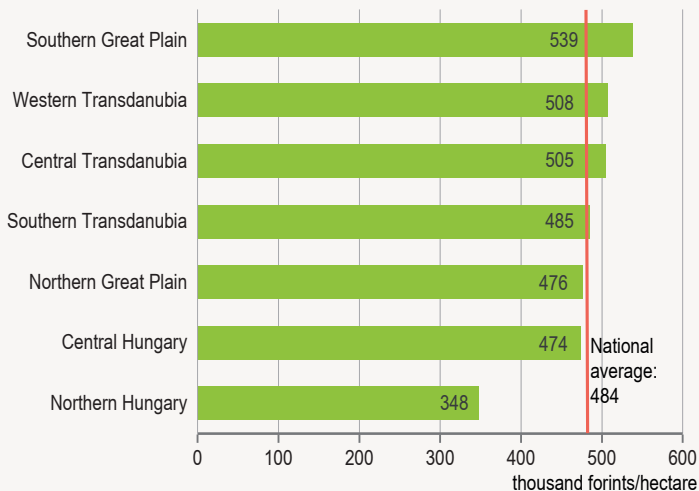


Figure 11

**Intensity of agricultural production by region, 2016**



**Regional distribution of output by product group and of income, 2016**  
(national total=100.0)

Table 1

Denomination	Central Hungary	Central Transdanubia	Western Transdanubia	Southern Transdanubia	Northern Hungary	Northern Great Plain	Southern Great Plain
Crop and horticultural products	7.2	10.4	10.4	16.2	9.6	20.9	25.3
Within which:							
cereals	5.2	13.3	11.9	21.4	7.4	20.1	20.8
industrial crops	5.5	10.3	10.9	16.9	11.7	22.8	22.0
horticulture, fruits, grapes, wine	12.2	3.1	5.6	4.4	7.6	21.5	45.6
Live animals and animal products	6.4	14.2	12.9	12.1	5.5	24.5	24.3
Services and secondary activities	7.1	11.2	10.3	15.5	6.8	19.0	30.2
Agricultural output	6.9	11.7	11.2	14.9	8.1	21.9	25.3
Agricultural area	7.1	11.2	10.7	14.8	11.2	22.3	22.7
Factor income	5.7	11.6	9.5	14.4	7.1	23.5	28.3
Net entrepreneurial income	4.8	11.5	8.3	14.0	6.5	24.5	30.4

According to the second forecast for the member states of the EU-28, the value of the agricultural output of the Community was 401 billion euros in 2016, 3.2% lower than the level a year earlier. 52% of the value was represented by the output of crop products, 40% by that of live animals and animal products and the rest by the output of secondary activities and services.

France, Italy, Germany, Spain, the United Kingdom and the Netherlands were at the top of the ranking of agricultural output, they together produced 69% of the total output of the EU in 2016. Out of these the volume rose in Spain and the Netherlands and was unchanged or decreased in the rest. The output of crop production lessened by 1.8%,

while that of livestock production was up by 1.4%. Out of crops the output of wheat and fruits fell but that of forage plants, potatoes and sugar beet increased. The output of cattle, pigs and poultry rose at rates of between 1.3% and 3.3%.

Hungary produced 2.1% of the agricultural output of the EU-28 in 2016 according to preliminary data, its share going up by 0.2 percentage point compared to 2015. Hungary accounted for 2.4% of crop products and 1.8% of animals and animal products. 5.2% of the EU's cereals output, within which 13% of the maize output came from Hungary. Hungary's output of industrial crops is significant, which is consistent with the production of oil crops primarily.

### Distribution of agricultural output in the European Union, at current basic prices, 2016<sup>+</sup>

Table 2

(%)

Denomination	Hungary	Five largest producing countries				
Cereals	5.2	FR	DE	IT	ES	PL
		18.0	13.7	9.2	8.8	8.5
Industrial crops	6.4	FR	DE	PL	RO	HU
		20.6	14.8	8.2	7.0	6.4
Forage plants	0.9	DE	FR	ES	IT	RO
		28.2	22.1	6.7	5.3	4.9
Vegetables and horticultural products	1.4	NL	IT	ES	FR	DE
		18.2	16.1	15.6	11.7	8.5
Potatoes	0.7	FR	DE	NL	UK	PL
		18.5	16.5	12.6	7.6	7.1
Fruits	1.5	ES	IT	FR	EL	PT
		34.9	18.3	11.9	7.1	4.4
Wine	0.5	FR	IT	DE	ES	PT
		47.1	33.4	6.0	5.1	3.0
<b>Crop products</b>	<b>2.4</b>	<b>FR</b>	<b>ES</b>	<b>IT</b>	<b>DE</b>	<b>NL</b>
		<b>18.8</b>	<b>13.9</b>	<b>13.9</b>	<b>11.9</b>	<b>6.5</b>
Live animals	2.0	FR	DE	ES	UK	IT
		15.8	14.3	12.5	10.4	9.6
Animal products	1.3	DE	FR	IT	NL	UK
		16.2	15.2	9.3	8.3	8.2
<b>Live animals and animal products</b>	<b>1.8</b>	<b>FR</b>	<b>DE</b>	<b>ES</b>	<b>IT</b>	<b>UK</b>
		<b>15.6</b>	<b>15.0</b>	<b>10.3</b>	<b>9.5</b>	<b>9.5</b>
Services	2.0	IT	FR	DE	NL	UK
		24.0	22.0	13.4	12.0	6.6
Secondary activities	1.2	IT	FR	UK	RO	ES
		28.0	13.5	10.8	9.6	8.1
<b>Agricultural output, total</b>	<b>2.1</b>	<b>FR</b>	<b>IT</b>	<b>DE</b>	<b>ES</b>	<b>UK</b>
		<b>17.5</b>	<b>13.2</b>	<b>12.8</b>	<b>11.7</b>	<b>6.9</b>

Country codes: HU – Hungary, DE – Germany, EL – Greece, ES – Spain, FR – France, IT – Italy, NL – Netherlands, PL – Poland, PT – Portugal, RO – Romania, UK – United Kingdom.

Further data, information  
(links):  
[Methodology](#)  
[Tables \(STADAT\)](#)

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