

LITHUANIAN INSTITUTE OF AGRARIAN ECONOMICS

**AGRICULTURAL AND FOOD SECTOR
IN LITHUANIA**

2015

VILNIUS, 2016

An analytical review of the Lithuanian agricultural and food sector over the period of 2011–2015. “Agricultural and Food Sector in Lithuania 2015” is intended for representatives of governmental and self-governing authorities, scientific research and study institutions, and all interested in the development of agricultural and food sector and rural areas.

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ABBREVIATIONS

AIRBC – Agricultural Information and Rural Business Centre
EAGF – European Agricultural Guarantee Fund
EAFRD – European Agricultural Fund for Rural Development
CAP – Common Agricultural Policy
CN – Combined Nomenclature
EAGF – European Agricultural Guarantee Fund
EAFRD – European Agricultural Fund for Rural Development
EC – European Commission
EEU – Eurasian Economic Union
EU – European Union
EU-15 – the old EU Member States
EU-27 – all EU Member States in 2007
EU-28 – all EU Member States since 1 July 2013
FADN – Farm Accountancy Data Network
GDP – Gross domestic product
GVA – Gross value added
LIAE – Lithuanian Institute of Agrarian Economics
RDP – Rural Development Programme
TNA – transitional national aid
UAA – utilized agricultural area
USA – United States of America
VAT – Value added tax

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FOREWORD

The publication “Agricultural and Food Sector in Lithuania 2015” is the seventeenth edition of the annual publications by the Lithuanian Institute of Agrarian Economics (LIAE). This analytical economic survey of agriculture and processing industry was prepared referring to the statistical information, accountability data of companies, and the findings of research conducted by the LIAE staff.

In 2015, gross agricultural output (at current prices) increased by 1.1 %. While the exports of agricultural and food products, as compared to 2014, decreased by 3.8 %, the exports of products of Lithuanian origin did not decline. Balance of foreign trade in agricultural and food products has been positive since 2004. In 2015, it was 1.6 times higher than in 2011 and amounted to EUR 899 million. National agricultural development was further encouraged by the European Union (EU) and national budget aid. The funds allocated in 2015 for agricultural direct and investment support, intervention and other market regulation measures were by 23.8 % above the sum of 2014.

The publication provides the five-year period variations in the agricultural and food sector development indicators, special attention focusing on the events and outcomes in 2015. Pursuing the opportunity to compare the key tendencies, data in all surveys is provided following the single methodology and structure.

As in any previous year, some provisional statistical indicators for the year 2015 were used. Final economic and financial outcomes will be reflected in the later publications of the Department of Statistics and in the next-year LIAE survey. Insignificant deviations due to rounding are possible in statistical data.

The publication is intended for all who are interested in the achievements and problems of the agrarian and food sector. Material provided here might be useful for agricultural specialists and scientists, farmers and entrepreneurs, teachers and students.

Our sincere gratitude goes to the Heads of the Department of Statistics and the Ministry of Agriculture of the Republic of Lithuania, the Agricultural Information and Rural Business Centre (AIRBC) and their staff members for provided statistical information and advice. Dear readers, we are kindly looking forward to your remarks and proposals.

Dr. Rasa Melnikienė,
Director of the Lithuanian Institute of Agrarian Economics

I. ACHIEVEMENTS OF THE LITHUANIAN AGRICULTURAL AND FOOD SECTOR AND THEIR UNDERLYING FACTORS

1. Importance of agricultural and food sector in the national economy

Agricultural business in Lithuania has performed its activities in 2015 under stable macroeconomic conditions, characterised by the growing gross domestic product (GDP) and increasing revenues of the population, constantly decreasing unemployment both in urban and rural areas, and good business loan conditions. The annual growth of the GDP in 2015 reached 1.9%, and, compared to 2011, this indicator has increased by 18.7%. The GDP per capita has increased still more rapidly. During the period of five years, from 2011 to 2015, this indicator increased by 23.8%, and in the last years of the period its growth amounted to 2.8%. Not only the growing economy but also the decreasing number of the population, amounting to 2.9 million of people in 2015 and being lower by 4.1% than in 2011, contributed to the growth of the above-mentioned indicator. Annual inflation in 2015 was replaced by deflation (-0.1%) (in 2011, inflation accounted for 3.4%). The unemployment indicator has retained the consistent reduction tendency. In 2011, unemployment accounted for 15.4%, whereas in 2015 it dropped to 9.1%. These conditions determined the growing income of the residents in the country. In 2014, the average income per household member according to the data of the Department of Statistics amounted to EUR 344.4 – comparing to the previous years, increased by 5.6%, and, compared to 2011, by 33.0.

Gross value added (GVA), generated in the agricultural and food, beverages and tobacco products sectors. During the reference period, new tendencies have become evident, the sector growth slackened, as compared to the previous periods, and the GVA, generated in this sector, has been declining since 2013. The Lithuanian agriculture that has revived after the 2008–2009 global crisis faced new challenges in 2015 as regards the slump in prices for agricultural and food products on the world markets. According to the data of the Department of Statistics, the GVA created in agriculture, forestry and fisheries in 2015 remained at the same level as in 2011 and amounted to EUR 1085 million, though, if compared to 2014, dropped by 4.2% (Table 1.1).

The GVA generated in the food production industry has increased consistently within the reference period. The Department of Statistics does not supply data on this indicator for 2015, therefore, it is possible to assess only the period in 2011–2014, the data thereof show that GVA in 2014 was by 15.0% higher than in 2011. Growth in 2014, as compared to 2013, amounted to 0.9%. The GVA growth rate in this sector slowed down due to the economic difficulties experienced by milk processing enterprises as Russia closed the market for the products manufactured in the EU countries and upon the fall in prices for milk products on the global markets.

Table 1.1. Macroeconomic indicators of agriculture, forestry and fisheries in 2011–2015

Indicators	2011	2012	2013	2014	2015*
Gross domestic product, at current prices, EUR mill.	31263	33335	34962	36444	37124
Gross value added, at current prices, EUR mill.	28148	30151	31654	32912	33370
Gross value added created in agriculture, forestry and fisheries, EUR mill.	1086	1340	1251	1133	1085
Share of agriculture, forestry and fisheries in gross value added, %	3,9	4,4	4,0	3,4	3,3
Gross value added created in manufacture of food products, beverages and tobacco products, EUR mill.	1284	1375	1463	1476	...
Share of manufacture of food products, beverages and tobacco products in gross value added, %	4,6	4,6	4,6	4,5	...

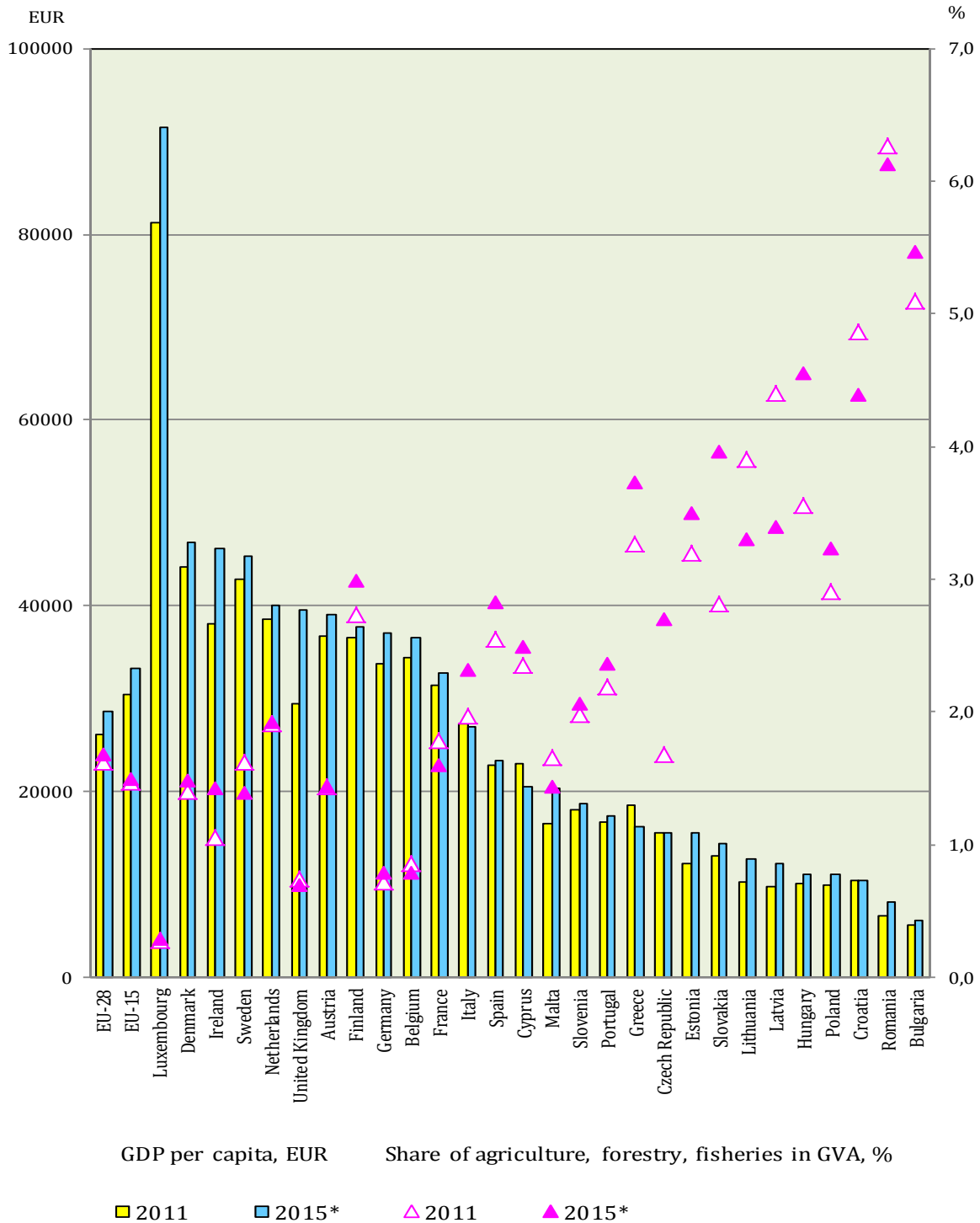
* Provisional data.

Sources: *Statistics Lithuania and Eurostat.*

In evaluating the contribution of the agricultural, forestry and fisheries sector in the generation of the country's GVA, a tendency of decreasing of its share belonging to this sector becomes revealed. Growth in the share of the GVA in 2012, created in the agricultural, forestry and fisheries sector, was due to the record crop yield and especially high prices for grain on the global markets. In 2015, however, this indicator has dropped to 3.3% (in 2011 – 3.9%). With the share of the GVA generated in the agriculture, forestry and fisheries sector decreasing, this sector in Lithuania's economic structure remains still more important than in the major part of the European countries.

According to the Eurostat data, Lithuania by the share of the GVA, generated in the agriculture, forestry and fisheries sector, in 2015 was ranked ninth among the EU-28 countries and by 2.2 times outperformed the average of the old countries (EU-15) and by 1.9 times the average of EU-28. The larger portion of the GVA generated in agriculture, forestry and fisheries in 2015 belonged to Romania (6.1%), Bulgaria (5.5%), Hungary (4.6%), Croatia (4.4%), Slovakia (4.0%), Greece (3.7%), Estonia (3.5%), and Latvia (3.4%).

The smaller input of agriculture in the economic structure is characteristic of the old EU Member States which have implemented successfully the stage of industrialisation and are in the lead in the EU by the GDP per capita. For example, in the country with the highest GDP per capita in the EU – Luxembourg – where in 2013 this indicator reached EUR 91.6 thousand, the share of the GVA created in agriculture, forestry and fisheries was the smallest – 0.3%. In 2015, Denmark (GDP per capita – EUR 46.9 thousand) and Ireland (EUR 46.2 thousand), Sweden (EUR 45.4 thousand), which ranked second and third, also have the small share of the GVA generated in agriculture, forestry and fisheries – 1.5% each. Fig. 1.1 demonstrates the share of the GVA created in agriculture, forestry and fisheries and the GDP per capita.



* Provisional data.

Fig. 1.1. Gross domestic product and the share of gross value added in agriculture, forestry and fisheries in the total country's gross value added in Lithuania and other EU countries in 2011 and 2015, %

Source: Eurostat.

New tendencies have become revealed in evaluating the input of the agricultural, forestry and fisheries sector in the GVA generation in the EU countries over the reference period: the share in the GVA structure belonging to this sector in 17 countries out of 28 has been increasing. The major change occurred in the Czech Republic where part of the agricultural, forestry and fisheries sector in the GDP structure increased from 1.7% in 2011 to 2.7% in 2015, i.e. by one percentage point. Within the same period the share of the GDP in Hungary increased from 3.6 to 4.6%, respectively, Greece from 3.3 to 3.7%, Italy from 2.0% to 2.3%, Ireland from 1.1 to 1.4%, Spain from 2.6 to 2.8%, Finland from 2.7 to 3.0%, Estonia from 3.2 to 3.5%, and Germany from 0.7 to 0.8%. Therefore, it may be stated that the process of the more rapid than the average growth of the GAV created in agriculture, forestry and fisheries in the national economy was characteristic in both new and old countries.

Most important foreign trade tendencies. Lithuania is fully self-sufficient in the basic agricultural and food products; therefore, surplus production is exported. That way agriculture and the food production industry contribute to the national economic development. In 2008–2009, volumes of foreign trade in agricultural and food products were under the lesser impact of the global economic market in comparison with foreign trade in other economic branches, even though experience gained in the period of 2011–2015 shows that the sectors in the global market face challenges that are characteristic of them only. In 2011, export in agricultural and food products amounted to EUR 3339 million, and its share comprised 16.6% of the total export of the country. In 2015, the share of exports of these products in the total export increased to 19.4%, and its value was by 33% higher than in 2011. From 2014, however, after Russia’s embargo imposed on import of agricultural and food products from the EU countries, the export volumes dropped from EUR 4644 million in 2014 to EUR 4467 million in 2015, i.e. reached 96% of the previous year level (Table 1.2).

Table 1.2. Export, import and foreign trade balance of agricultural and food products in 2011–2015

Indicators	2011	2012	2013	2014	2015*
Value of exported products, EUR mill.	3339	4240	4696	4644	4467
share in total export, %	16,6	18,4	19,1	19,1	19,4
Value of imported products, EUR mill.	2775	3264	3722	3706	3568
share in total import, %	12,2	13,1	14,2	14,3	14,0
Foreign trade balance, EUR mill.	565	976	974	939	899

* Provisional data.

Source: Statistics Lithuania.

In making a more exhaustive analysis of the reasons for a decline in export, a conclusion may be drawn that a negative impact of Russia’s embargo on agricultural economic results has been overestimated in Lithuania. Over the period of 2011–2015 the value of export in products of Lithuanian origin increased by 35.4%. In 2011, it

reached EUR 2241 million, whereas in 2015 EUR 3034 million (Table 1.2). Analysis of export structure, taking into account its origin, showed that loss of the Russian market made a bigger negative effect not on exports of products of Lithuanian origin but rather on re-export, i.e. losses were incurred by entrepreneurs who exported to Russia products acquired in the EU and other third countries. In 2011, export of agricultural and food products of Lithuanian origin amounted to 12.4%, and the most important export markets for Lithuanian products were the EU countries, accounting for 63.8% of exports in Lithuanian origin products. In 2015, the share of export of agricultural and food products of Lithuanian origin to Russia has shrunk to 2%, whereas these losses were compensated by the increasing export to the EU countries, with an increase in its value within the period of 2011–2015 by 1.4 times – from EUR 1615 million in 2011 to EUR 2251 million in 2015

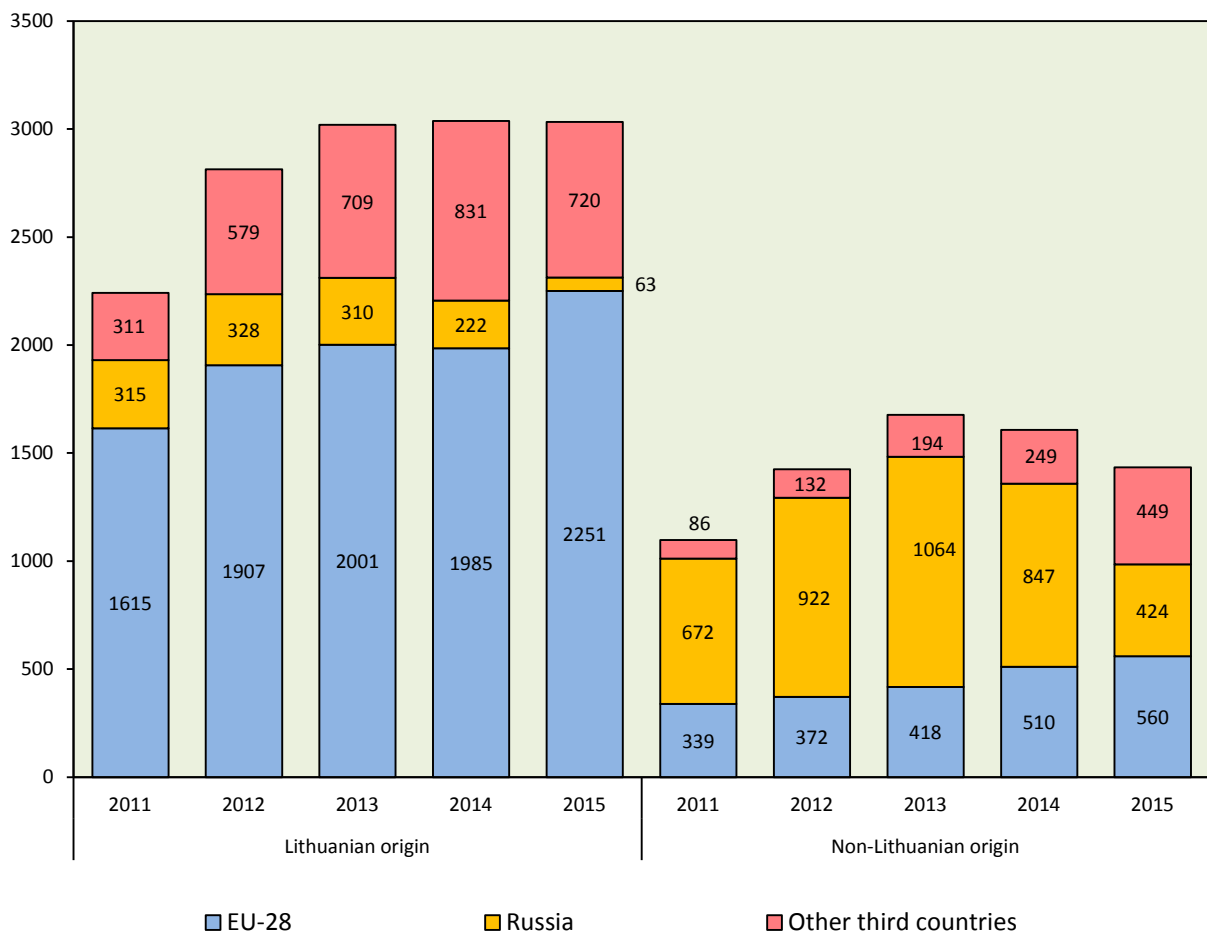


Fig. 1.2. Export of agricultural and food products of Lithuanian and non-Lithuanian origin in 2011–2015, EUR million

Source: LIAE data basis of foreign trade in agricultural and food products (Data of Statistics Lithuania).

The total decrease in exports in 2015 was due to the fall in the volumes of export in agricultural and food products of non-Lithuanian origin. In 2011, the value of re-export amounted to EUR 1097 million, and re-export to Russia in 2011 in the total re-export structure reached even 61.3%. Export in agricultural and food products of non-Lithuanian origin that went up until 2013 has been reducing in 2014–2015. This process took place due to the decrease of re-export to Russia. In 2013, the value of re-export to Russia amounted to EUR 1064 million, this making 63.7% of the total export of products of this origin. In 2015, compared to 2013, re-export dropped by 2.5 times up to EUR 424 million, and this loss failed to be compensated in other markets.

In 2015, Lithuania sought to retain the most important export markets for agricultural and food products and expanded its export geography. In 2011, Russia was the major export partner in the export of agricultural and food products (of Lithuanian and non-Lithuanian origin). Export to this country accounted even for 29.6% of the total value of export in agricultural and food products. After imposition of an embargo by Russia, Lithuanian exporters strengthened their efforts to diversify export markets for agricultural and food products and thus to reduce the risk. In 2015, the agricultural and food products were mainly exported to Latvia. Export volumes to this country within the period of 2011–2015 increased by almost one-fifth. Exporters, however, were increasing export volumes to other countries as well. Of the EU countries, export to the Netherlands increased most of all – by 2.2 times, followed by Poland – 1.6, Italy – 1.5, and Estonia by 1.4 times. Export to some third countries also went on increasing at a rapid pace. The leading position in this group belonged to Belarus, exports into which of agricultural and food products in 2015, as compared to 2014, having increased even by 4.4 times. The United States of America (USA) ranked second by growth rates. Export to this country augmented by 4.2 times, even though volumes still remained not big: in 2015 amounted to 1% of export. Export to Saudi Arabia increased by 3.8 times. This boost resulted from the augmenting grain export. In 2015, Lithuania's exports in agricultural and food products covered 133 countries.

Changes in export geography have been underpinned by the changes in the structure of exported agricultural and food products of Lithuanian origin: the share of milk and milk products decreased in the export structure of Lithuanian origin products, whereas the export share of cereals went up. Estimating losses in exports of agricultural and food products of Lithuanian origin in 2011–2015, mention is to be made of losses suffered by the dairy sector and milk processing industry. For many years, exporters of products in this sector have not sought to spread the export risk, being concentrated on Russia's market. In 2011, this market accounted for 30% of the total export of milk and milk products. In 2014, upon imposition of an embargo by Russia, the share of export in milk products belonging to Russia decreased to 18%, and in 2015 just reached 2%. Losses of exporters have also augmented due to the fall of prices for milk products as a result of overproduction. In 2015, export of milk products reached EUR 422 million and made 13.3% of Lithuanian origin export (Fig. 1.3). Crisis in the milk sector that started in 2014 and persisted in 2015 due to the overproduction on the global market showed how this sector was vulnerable on the global market and how it was important for the farmers to reduce the risk while implementing the measures that would enable income stabilisation in the long term.

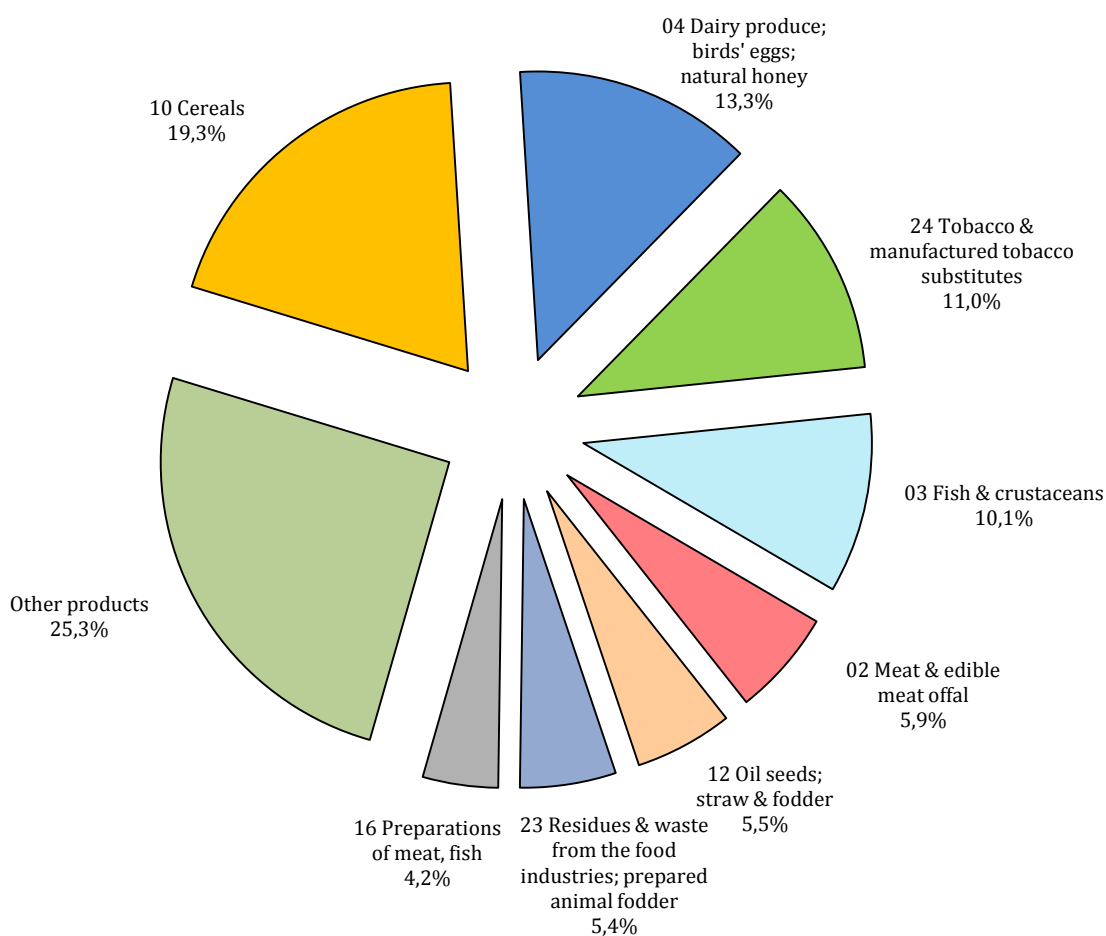


Fig. 1.3. Export structure of agricultural and food products of Lithuanian origin in 2015

Source: LIAE data basis of foreign trade in agricultural and food products (Data of Statistics Lithuania).

With Lithuania facing difficulties in exporting milk and milk products, the country has strengthened its position on global markets as the exporter of cereals. The constantly increasing share of farms specialising in crop growing for many years and the expanding areas under crops show the evident turning-point in the specialisation of agricultural production from dairy farming towards crop growing. According to the 2013 agricultural structure research data, farms involved in the cultivation of cereals and rape made 47.3% in the structure of Lithuanian farms. Areas under crops in 2015 covered 1331.5 thou. ha, and in the structure of crops the plants in question accounted for 45.5%. Over the period of five years the areas under crops increased by one-fourth. With an increase in production, exports of these products went on augmenting. During the period of 2011–2015, the value of export of cereals went up by 2.5 times, from EUR 238.5 million to EUR 585.3 million in 2015. In the export structure of agricultural and food products of Lithuanian origin, cereals within the said period increased from 10.6% to 19.3%. Exporters of cereals had to find new markets for this production, mostly in third countries, like Saudi Arabia and Iran. In 2011, exports accounted for 34.1% and in 2015 for 52.1% of the cereals cultivated in Lithuania. With account of the portion of exported cereals cultivated in the country, Lithuania in 2015 ranked sixth in the world after the Netherlands, Latvia, Bulgaria, Romania, and Estonia. The increasing volumes of

cereal production and augmenting exports have not only positive but also negative aspects. One of these is the growing business risk of grain crop growers due to both variations in global prices and climatic conditions that is predetermined by the narrow specialisation of farms. In the reference period, 90% in the structure of production produced in the farms growing cereals and rape consisted of cereals. Owing to this reason, the risk reduction measures and diversification of activity – development of other activities – are important in the sector.

Estimating Lithuania's foreign trade tendencies within the reference period, it may be stated that Russia's embargo has impacted not only exports but imports as well. Imports of agricultural and food products increasing within the reference period until the year 2013 started decreasing from 2014. In 2015, it reached EUR 3568 million, i.e. accounted for 95.9% of the level of 2013. The decline in imports of agricultural and food products was determined by the decreased re-export.

Employment and earnings. Employment in agriculture that has become reduced due to the modernisation of agriculture after the re-establishment of independence made it possible to presume that the tendencies characteristic of the old EU Member States would be formed in Lithuania when agriculture plays a still smaller role in the population employment, and the employable people of the country who lost their jobs in agriculture get successfully employed in the industry, increasing the number of employees. Employment and unemployment tendencies, however, show that importance of agriculture in employing the rural population and generating their earnings has not decreased. The number of the employed in agriculture, forestry and fisheries within the reference period increased from 106.4 thousand in 2011 to 121.4 thousand in 2015, i.e. by 14%. The number of the employed in the agriculture, forestry and fisheries sector augmented more rapidly than on the average in the country where the number of the employed within the same period increased by 6%. Due to this, the portion of the employed in this sector became increased in the employment structure. In 2011, the number of the employed in the agriculture, forestry and fisheries sector made 8.5% of the employed, and in 2015 – 9.1%.

Evaluating an impact of agriculture, forestry and fisheries on the population employment at a regional aspect, a conclusion may be drawn that within the reference period that big regional differences remained as regards the importance of this sector for the population employment. In 2011–2015, the largest share of the employed in agriculture, forestry and fisheries was in the Telšiai County. In 2011, it accounted even for 29.8% of the total number of the employed and in 2015 decreased to 25.8%, but remained by more than 2.5 times higher than the average. The lowest number of the employed in this sector was in the Vilnius County: in 2011 just reached 1.8%, while in 2015 increased to 2.7%. The Marijampolė County was noted for the highest rate of growth within the reference period. The number of the employed in this County in 2005, as compared to 2011, increased from 10.6 thousand to 17.8 thousand, i.e. by almost 1.7 times. A high rate of growth in employment was also observed in Klaipėda and Utena counties where the number of persons employed in agriculture, forestry and fisheries augmented by 1.3 times. Agriculture in rural areas generated earnings for more than every fourth of the employed: in 2011 part of the employed in agriculture, forestry and fisheries accounted for 28.6% and in 2015 – by 1.5 percentage point less, i.e. 27.1%.

Dynamics of the employed in agriculture is illustrated by the net value added indicator, since it shows the newly created value in the sector, whereas its structure

demonstrates the distribution of earnings generated in agriculture between agricultural employers (farmers, agricultural companies or other enterprises) and hired employees thereof. Data of economic accounts for agriculture show an increase in the net added value within the period of 2011–2015 by 22.7%, from EUR 645.1 million in 2011 to EUR 791.7 million in 2015. A certain portion of increment in the net value added belonged to the increase in workers’ income and taxes related to wages (workers’ compensations). In 2011, the share of compensations for workers in the net added value structure reached 18.0% and in 2015 amounted to 23.1%. Within the reference period, compensations for workers increased by 1.6 times. Such tendencies have been determined by a shortage in qualified agricultural workers in rural areas and increasing wages in other sectors of the national economy. In 2011–2015, the average wages (gross) in agriculture, forestry and fisheries increased by 38.8% (a private sector with individual enterprises), i.e. from EUR 435.3 to EUR 604.3 and approached the average in the country. In 2011, it made 78.0% of the analogous average indicator of the country, and in 2015 amounted to 89.2%.

Agricultural entrepreneurial income (without subsidies) within the reference period increased by 15% and in 2015 totalled EUR 609.2 million. The additional factor in the increase of income of farmers and other agricultural production producers has become the annually augmenting subsidies from both the EU and national budget funds. This support from 2011 to 2015 increased by 26.5%. With subsidies increasing more rapidly than entrepreneurial income of agricultural entities, dependence of economic entities on the support went on increasing. In 2011, subsidies in the general structure of entrepreneurial income (entrepreneurial income and subsidies) amounted to 40%, and in 2015 totalled 42.5% (Fig. 1.4).

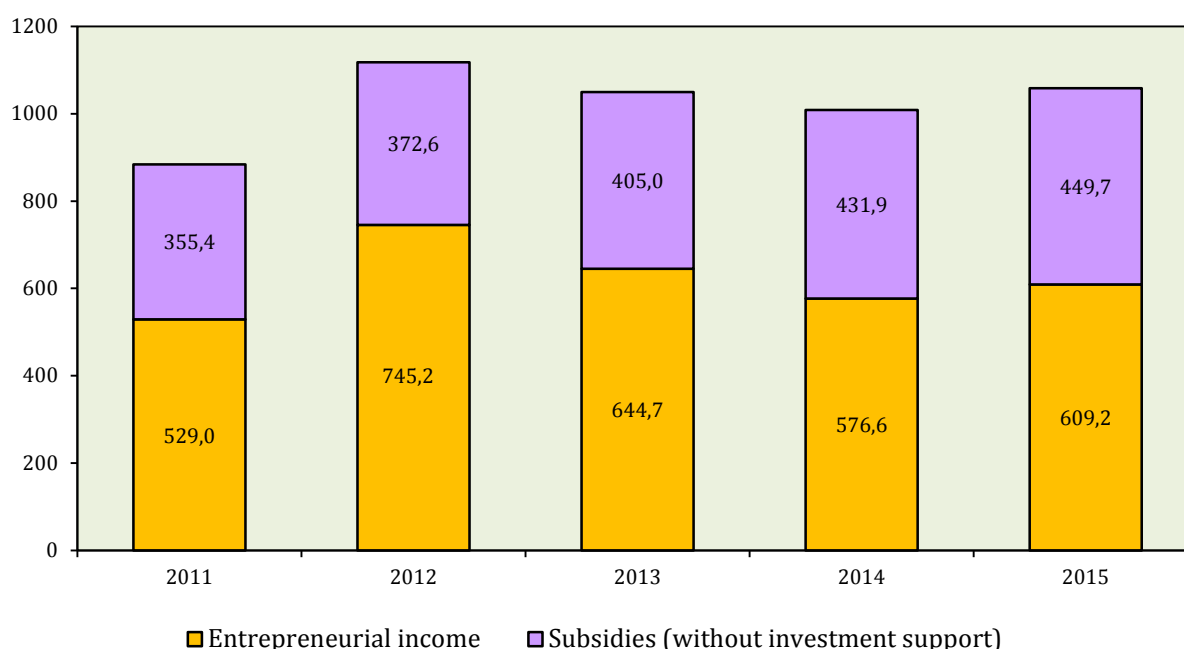


Fig. 1.4. Entrepreneurial income from agriculture and subsidies (without investment support) in 2011–2015, EUR million

Source: Economic Accounts for Agriculture.

With the improvement of macroeconomic agricultural indicators and with the growth of farmers' earnings, a high level of poverty risk still has retained in rural areas. Evaluating the importance of agriculture in terms of income of the rural population, it should be stated that the number of the unemployed who previously have been employed in agriculture is still substantial in Lithuania. In 2011, part of such persons accounted for 8.7% of the total number of the unemployed, and in 2015 it has increased to 10.9%. This shows that investment support for modernisation of agriculture has exerted not only positive, but also negative effects on local communities – other sectors are not able to absorb the surplus workforce in agriculture. Negative tendencies include the still retaining high poverty of the rural people and the slowly decreasing dependence of their income level on social support. In 2014, the poverty risk level in rural areas amounted to 25.5% and, compared to 2011, has dropped by 3.7 percentage points against 29.2%. Social support for rural residents was an important poverty reduction factor, since the poverty level prior to social benefits (other than pensions) was by 11.5 percentage points higher and in 2004 reached even 37%. At the same time the poverty risk level in the cities within the same period has increased from 14.2% in 2011 to 16.0% in 2014.

According to the data of the Department of Statistics, most often pensioners and the unemployed are subject to the threat of poverty. Data of the Farm Accountancy Data Network (FADN), however, show that income deficiency is characteristic of the families farming in small farms. In 2011, the gross profit with subsidies in the farms up to 10 ha reached EUR 2634 per year. Data on household survey conducted by the Department of Statistics showed that in 2011 the annual average income of households attributed to I quintile group of the lowest income was somewhat lower than of the farms with up to 10 ha – EUR 2534. In 2015, if compared to 2011, the indicator of gross profit with subsidies of the farms with up to 10 ha decreased by one-third to EUR 1766. Comparing this indicator with household survey results, it is seen that in 2015 income with subsidies of the farms with up to 10 ha constituted just 69.7% of the average income of households attributed to I quintile group. With small farms facing poverty, the gap of income between large and small farms increased consistently throughout the entire period of 2011–2015. In the farms, holding more than 150 ha of utilised agricultural areas (UAA), the gross profit with direct payments in 2015 reached EUR 55875. The survey conducted shows that the model of EU support distribution between farms has increased the property differentiation, and the EU support contribution in tackling the problems of the income level of the farms is insufficient.

Aiming to reduce poverty and social exclusion, to improve the social and political situation in the rural communities, more attention should be devoted to job preservation and development various activities in farmers' farms, as well as search of new opportunities for increasing income of farmers and other rural residents. This aim may be achieved not only by the use of the more efficient machinery and automation of production processes, but also by creating products with the higher added value, expanding the process of processing of agricultural products, applying the innovative marketing methods, the system of selling food products on the market without mediation and other social innovations.

2. Gross agricultural output

According to the provisional data of the Department of Statistics, the gross agricultural output produced in 2015 if calculated at the current prices of the period, amounted to EUR 2.45 billion, i.e. by 1.1% more than in 2014. This was due to the yield of some crop production products and purchase prices. Within the entire period under analysis, the crop output comprised the larger portion of the gross agricultural production value. This share in 2015, as compared to 2014 and 2011, was higher by 5.3 percentage points (Table 1.3).

Table 1.3. Structure of gross agricultural output* in 2011–2015

Output	2011		2012		2013		2014		2015**	
	EUR mill.	%	EUR mill.	%	EUR mill.	%	EUR mill.	%	EUR mill.	%
Total	2354,0	100	2711,2	100	2548,7	100	2450,9	100	2477,2	100
crop output	1397,5	59,4	1752,1	64,6	1512,0	59,3	1456,2	59,4	1602,7	64,7
animal output	956,6	40,6	959,1	35,4	1036,7	40,7	994,7	40,6	874,5	35,3

* At current prices.

** Provisional data.

Source: Statistics Lithuania.

The value of crop output in 2015, as compared to 2014, was higher by 10.1%. This was conditioned by the increased prices for almost all crop production products. The crop output value increase was also impacted by the richer harvest of fruit and berries, grain and rapeseed (by 24.1, 22.5 and 2.1%, respectively). The value of livestock production in 2015, as compared to 2014, dropped by 12.1% due to the decrease in the purchase prices for milk, pigs, cattle and poultry (by 23.2, 11.7, 2.6 and 0.5%, respectively).

At estimating the gross agricultural output structure by counties, the highest share of crop output in 2014 was found in Šiauliai, Marijampolė and Kaunas counties (70.7, 69.1 and 61.7%, respectively), and lowest in Tauragė, Vilnius and Klaipėda counties (45.1, 46.1 and 49.3%, respectively). In 2014, as compared to 2010, in all counties, except Tauragė, the share of crop output has increased. The highest growth in the share of crop output in 2014, as compared to 2010, was fixed in Utena, Vilnius and Marijampolė counties (by 9.2, 7.1 and 6.5 percentage points, respectively).

The gross agricultural production (estimated at comparable prices) increased by 7.3% (Fig. 1.5). Upon analysis of the entire period of 2011–2015, it is seen that in 2013, in comparison with the previous years, the gross output decreased mostly – by 4.1%. Its highest increase was in the year 2012. Crop output in 2015, as compared to 2014, increased by 12.2%, whereas growth in livestock output was considerably lower – by 0.3%.

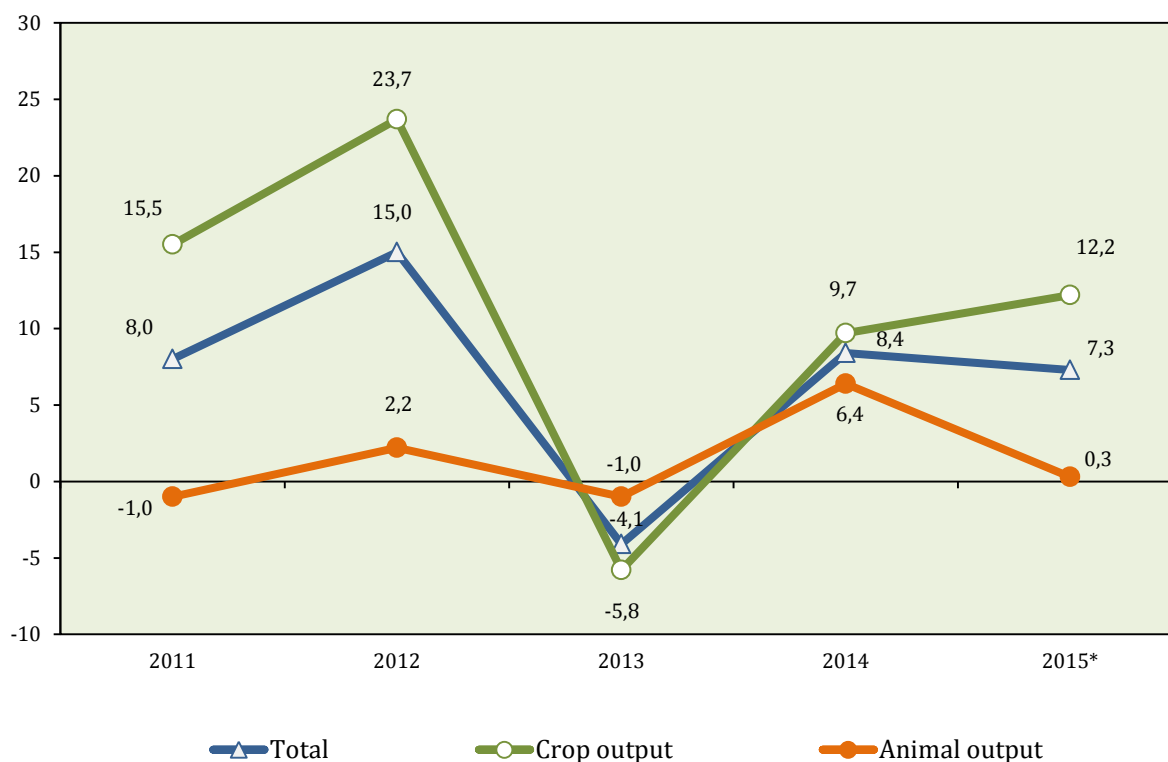


Fig. 1.5. Changes in gross agricultural output in 2011–2015***, %**

* Provisional data.

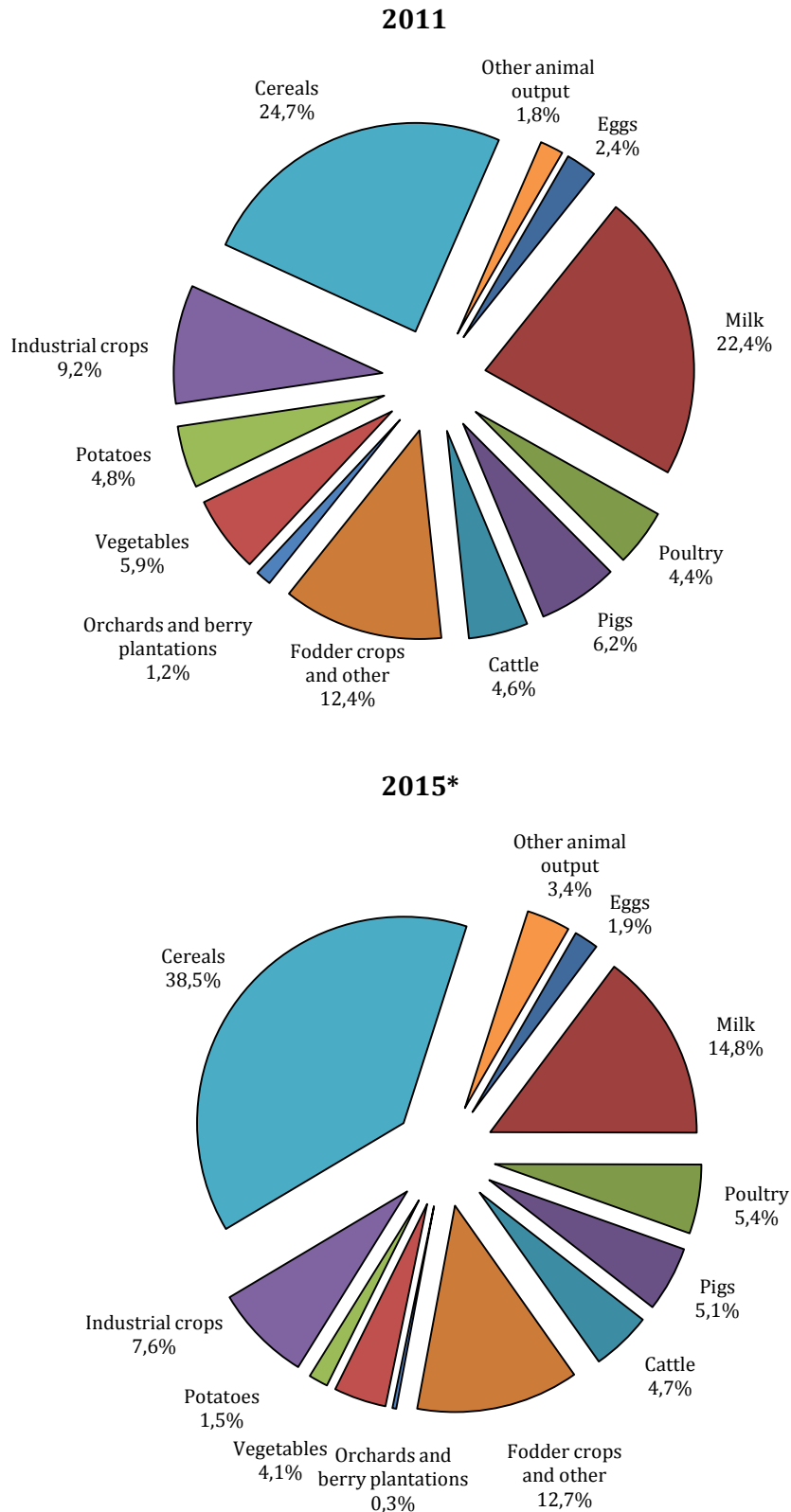
** At constant prices.

*** Compared to the previous year.

Source: Statistics Lithuania.

The highest share of the gross agricultural output in Lithuania in 2011 and 2015 consisted of cereals (respectively, 24.7% and 38.5%) (Fig. 1.6).

In 2015, as compared to 2011, the share of cereals and other livestock production increased most of all in the gross agricultural output structure (by 13.8 and 1.6 percentage points, respectively), whereas the share of milk and potatoes decreased most considerably (by 7.6 and 3.3 percentage points, respectively). The main reasons for negative tendencies in the dairy sector are low purchase prices for milk and relatively lower direct payments as compared to crop products. The negative changes in the potato sector were much influenced by the decreased demand in potatoes for both as animal feed and for human food.



* Provisional data.

Fig. 1.6. Structure of gross agricultural output in 2011 and 2015

Source: Statistics Lithuania.

The gross agricultural output structure in the EU countries varies from country to country. All the EU countries as to the gross agricultural output structure may be divided into three groups: Lithuania is listed in the third group (the first group consists of the countries where livestock production is prevailing (e.g., Ireland, Finland), the second group – countries where the share of crop and livestock output is almost equal (e.g., Belgium, Sweden), the third group – countries where crop output is predominant (e.g., Bulgaria, Greece). It is notable that at the beginning of the period under analysis the crop output in Lithuania made up the gross output share that was lower by 5.3 percentage points. In 2015, the crop output share was similar to that in Latvia and Italy (Table 1.4).

Table 1.4. Structure of gross agricultural output in EU countries in 2011 and 2015

Country	2011			2015		
	crop output, %	livestock output, %	gross agricultural output, EUR/ha UAA	crop output, %	livestock output, %	gross agricultural output, EUR/ha UAA
Ireland	27,6	72,4	1253	25,1	74,9	1417
Finland	42,0	58,0	1828	34,9	65,1	1627
Denmark	36,6	63,4	3810	36,3	63,7	3638
United Kingdom	42,4	57,6	1459	39,9	60,1	1554
Malta	43,7	56,3	10398	44,6	55,4	10573
Luxembourg	44,2	55,8	2434	45,8	54,2	2789
Austria	50,2	49,8	2255	47,3	52,7	2134
Belgium	43,9	56,1	5801	48,1	51,9	5904
Sweden	49,3	50,7	1696	50,2	49,8	1832
Cyprus	50,9	49,1	5683	51,1	48,9	5454
Poland	54,9	45,1	1532	52,1	47,9	1527
Germany	53,4	46,6	3099	52,2	47,8	2987
Netherlands	55,1	44,9	11967	55,3	44,7	12501
Estonia	46,4	53,6	770	55,9	44,1	878
Portugal	56,5	43,5	1669	56,9	43,1	1782
Slovakia	57,8	42,2	1097	57,2	42,8	1007
Slovenia	55,4	44,6	2531	57,9	42,1	2580
Czech Republic	61,8	38,2	1327	61,4	38,6	1250
Spain	61,4	38,6	1655	62,0	38,0	1767
France	62,2	37,8	2408	62,2	37,8	2468
Croatia	61,7	38,3	2050	62,2	37,8	1657
Hungary	64,9	35,1	1537	62,6	37,4	1551
Latvia	56,5	43,5	542	64,1	35,9	686
Lithuania	59,4	40,6	858	64,7	35,3	903
Italy	64,4	35,6	3455	65,7	34,3	3570
Romania	76,7	23,3	1253	70,2	29,8	1011
Bulgaria	67,3	32,7	844	71,8	28,2	789
Greece	70,4	29,6	2683	73,3	26,7	2873

Source: Eurostat.

In 2015, Lithuania's gross agricultural output per hectare of utilised agricultural area (UAA) was among the lowest in the EU. Compared to Denmark where conditions are similar, this indicator was lower by more than 4 times. This was due to the purchase prices for agricultural products that were lower than in other countries. In 2015, the highest gross agricultural output per hectare of UAA was in the Netherlands, Malta, Belgium, and Cyprus. These countries utilised rationally their natural and industrial resources, selected priorities according to their competitive advantages and situation on the market.

Comparing the gross agricultural output per hectare of UAA, it is seen that no distinct difference exists between groups. In Lithuania the gross agricultural output per hectare of UAA in 2015 was by 2.8% higher than in Estonia where livestock production makes a considerably larger portion of the gross agricultural output.

Procurement amounts and prices for agricultural products as well as input prices for their manufacture have the strongest impact on the volumes of the gross agricultural output. The volumes and structural changes of the agricultural production in Lithuania were also determined by the ever changing market conditions. Volumes of separate purchased agricultural products during the period of 2011–2015 changed unevenly. In 2015, in comparison with 2014, purchase of fruit and berries increased by 20.3%, rapeseed by 8.7%, grain by 5.8%, potatoes by 2.7%, whereas of vegetables decreased by 3.0%. Volumes of all purchased animals and livestock products, except pigs, increased in 2015, as compared to 2014. Purchase of cattle increased by 7.5%, eggs by 7.1%, poultry by 2.8%, and milk by 0.2%. These changes to a great extent were influenced by the prices of agricultural products and input required for their production.

Price index variation tendencies for agricultural products and input required for their production somewhat differed within the period of 2011–2015. The highest price indexes on both crop and livestock products as well as on input were in 2011. The lowest purchase price index for crop products was in 2014, for livestock products in 2015, and for inputs in 2013. In 2015, as compared to 2014, prices for crop and livestock products have reduced by 0.5% and 14.7%, respectively, and input prices dropped by 2.0%. These price index variations during the period of 2011–2015 predetermined the disproportion (the so-called price scissors) between the purchase price for agricultural products and price of inputs (Table 1.5).

Table 1.5. Price indices of agricultural products and inputs in 2011–2015, %

Indicators	2011	2012	2013	2014	2015
Price scissors	103,9	91,7	108,5	90,6	89,6
Purchase price indices of agricultural products					
total	123,8	99,5	102,5	87,8	91,4
crop products	137,5	97,1	97,1	85,0	99,5
animal products	113,3	101,7	107,2	90,1	85,3
Price index of inputs	119,1	108,5	94,5	96,9	102,0

* Compared to the previous year.

Source: Statistics Lithuania.

Over the entire period of 2011–2015, the year 2013 was most favourable for agricultural product producers, and the year 2015 was most unfavourable. The past year was unfavourable for crop and livestock product producers, even though price scissors were bigger in the livestock production sector. Purchase prices for livestock products dropped to a greater extent than in the crop farming.

3. EU and national support for the development of Lithuania's agricultural and food sector

In Lithuania since the year 2004 support for agriculture has been provided on the basis of instruments and legal acts regulating the Common Agricultural Policy (CAP). In 2014, the CAP was reformed and its goals expanded; however, a trend that has been envisaged from 2003 – development of sustainable agriculture – remained the key one. Aiming to support the activities of agricultural entities, to guarantee the sufficient income for farmers, to assure the supply of products to the market and to simultaneously contribute to environmental protection, aid to economic entities is granted from the EU and national budgets. In 2015, funds, allocated for funding of agriculture, comprised EUR 1083.5 million, i.e. by 23.8% more than it was allocated in 2014 (EUR 875.1 million).

Direct payments. The new CAP period for 2014–2020 has expanded opportunities and obligations for allocation of direct payments. In 2014, upon the CAP reformation, Lithuania chose to continue applying the single area direct payment scheme and also started additionally implementing a scheme “Payments for the first hectares (30 ha)”. Since 2015, Lithuania under the reformed CAP has undertaken to start implementing such schemes of the direct payment system like “Greening”, “Payments for Young Farmers” and “Voluntary Coupled Support”. In 2015, like in 2014, direct payments in Lithuania have been paid from the European Agricultural Guarantee Fund (EAGF) and from the national budget by paying the transitional national aid (TNA) payments. In 2015, the share of EAGF funds, allocated for Lithuania's direct payments, accounted for 92.5% (EUR 417.9 million); paid out EUR 398.3 million (Fig. 1.7). If compared to 2014, part of the allocated EAGF funds increased by 6.3%, and the paid amount made 5.4%. In 2015, the TNA part, paid for the declared animals and UAA amounted to EUR 33.0 million, i.e. by 36.5 less than in 2014 (EUR 52.0 million).

In 2015, the basic direct payments disbursed to the applicant for UAA (irrespective of the plant type) amounted to 56.7 EUR/ha, i.e. by 50.5% less than in 2014 (Table 1.6). Such decline was predetermined by redistribution of basic direct payments, paying the redistributive payment, greening payment, voluntary coupled support payments, and payments for young farmers.

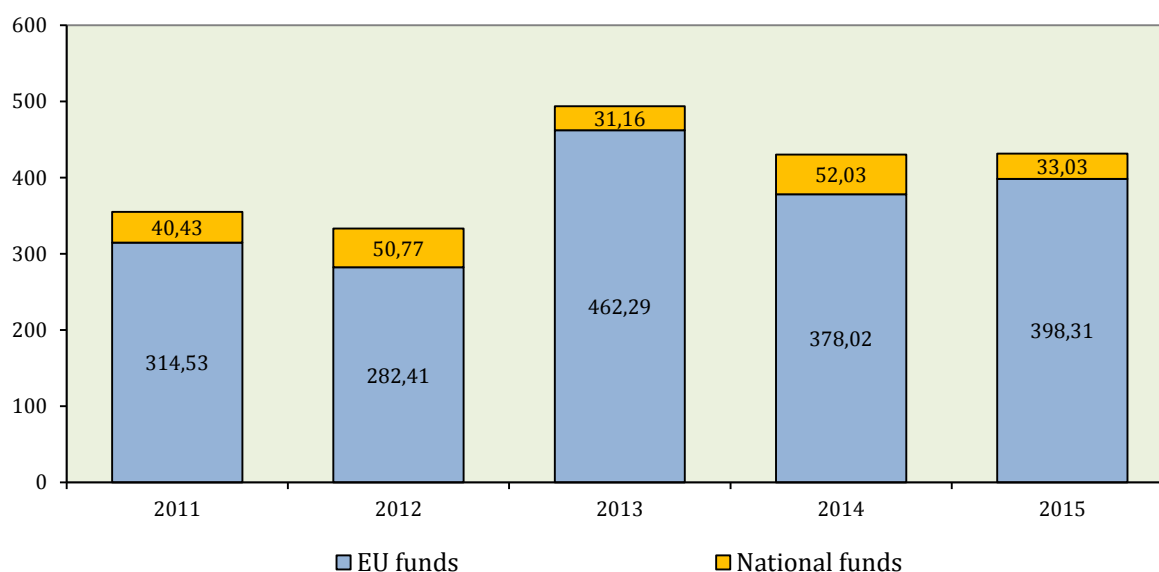


Fig. 1.7. Funds for direct payments in 2011–2015, EUR million

Source: National Paying Agency.

Table 1.6. Direct payments in Lithuania in 2011–2015

Kind of payment	2011	2012	2013	2014	2015
EU budget payments					
basic payment, EUR/ha	107,2	117,0	130,9	114,4	56,7
greening payment, EUR/ha	–	–	–	–	44,9
payment for the first hectares, EUR/ha	–	–	–	30,8	48,8
young farmer payment, EUR/ha	–	–	–	–	45,8
quota sugar payment, EUR/t	99,6	99,6	99,6	99,6	–
payment for protein crops, EUR/ha	–	–	–	–	83,5
payment for vegetables grown in heated greenhouses, EUR/a (0.01 ha)	–	–	–	–	527,0
payment for field vegetables (except legumes), EUR/ha	–	–	–	–	324,2
payment for fruit and berry cultivation, EUR/ha	–	–	–	–	207,4
special milk support, EUR/t	–	–	–	9,2	–
beef cattle payment, EUR/head	123,4– 158,1	148,0– 187,7	128,0– 162,5	86,5– 109,8	108,8
dairy breed bulls payment, EUR/head	–	–	–	–	76,8
sheep (meat breeds) payment, EUR/head	11,0–19,4	11,0–19,7	9,0–15,9	6,3–11,1	13,4
dairy female goats payment, EUR/head	–	–	–	–	41,4

* 1 are = 0.01 ha.

Source: Ministry of Agriculture.

In 2015, like in 2014, the redistributive payments were paid for the first 30 ha, targeting to support farmers smaller by UAA area. For funding this direct payments system scheme in 2015 EUR 62.7 million was foreseen from the EAGF funds.

After the change of sugar market regulation in 2014, in 2015 no direct payments for quota sugar have been foreseen.

To stimulate the more favourable agricultural activities in terms of the environment in Lithuania, like in other EU countries, since 2015 the direct payment system element – greening – has been applied. A greening payment is the payment for the entire declared (eligible for support) area, allocated on condition that the applicant complies with all established greening requirements. The principal requirements for being granted this payment cover crop diversification, maintenance of perennial grassland and pastures, and ecological focus areas. Under European Parliament and Council Regulation (EU) No. 1307/2013, 30% of the EAGF direct payments shall be allocated to the funding of these payments. In 2015, the size of the greening payment in Lithuania amounted to 44.9 EUR/ha.

The priority target in the entire EU is to have young people in rural regions, to encourage them to be engaged and continue agricultural activities. Since 2015, young farmers have been supported by complementary disbursement of direct payments. Complementary direct payments to be granted to young farmers may be claimed only by natural persons, and support is granted for eligible utilised areas up to 90 ha, which will be disbursed no longer than for 5 years. Under this direct payment scheme, a young farmer shall be under 40 and his holding is to be set up for the first time or has been set up not earlier than 5 years ago since his application submission. In 2015, the size of a complementary direct payment for young farmers in Lithuania amounted to 45.8 EUR/ha.

Since 2014, while reforming the CAP, the changing agricultural production structure both in the entire EU and its separate Members States has become a focus of concern in the EU. Seeking to enable the Member State to observe and maintain the separate farming trends independently, to react to structural changes, from 2015 the Member States could couple part of the funds, allocated for funding of direct payments, with the production of the specific agricultural products. Taking advantage of this option, a voluntary coupled support scheme has been started to be applied since 2015. Under this scheme, the coupled support shall be paid to the applicant declaring a certain UAA area for growing of vegetables, except potatoes, in closed (heated greenhouses) and open ground, as well as for growing fruit, berries and protein crops, for dairy cows, beef cattle and sheep of meat breeds, dairy bulls, and dairy goats. Annually, 15% of EAGF direct payments are foreseen to be allocated for these voluntary coupled support measures. In 2015, the coupled payment in Lithuania for cultivation was: protein crops 83.5 EUR/ha, vegetables in closed ground 527.0 EUR per are, vegetables (except pulse) in open ground 324.2 EUR/ha, fruit and berries 207.4 EUR/ha. Of the overall coupled support funds, 80% were foreseen for farms in the trend of livestock production. In 2015, the coupled payment in Lithuania per dairy cow made EUR 80.0, per beef cattle head EUR 108.8, per sheep of meat breeds EUR 13.4, per dairy bull EUR 76.8; per dairy goat EUR 41.4. These coupled direct payments for animals partly changed and supplemented the special support schemes for beef cattle and sheep of meat breeds applied in 2014.

Even though the major portion of direct payments was funded from the EU funds, some part of direct payments was also disbursed from national funds. The TNA amount, foreseen to be paid in 2015 for declared animals and AUU, made EUR 33.8 million, i.e. by 2.7% more than the TNA funding allocated in 2014 (EUR 32.9 million). Without prejudice to the TNA payment procedure coordinated with the European Commission (EC) and taking into account the permissible limits for TNA funding of separate sectors and the available reserve of funds, the TNA payments in 2015, as compared to 2014, increased (105.0 EUR/head) and bulls (205.0 EUR/head) (Table 1.7).

Table 1.7. Transitional national aid payment rates in Lithuania in 2011–2015

Kind of payment	2011	2012	2013	2014	2015
Complementary national direct payments* for:					
grain crops, rape EUR/ha	9,6	-	2,9	-	-
protein crops, EUR/ha	21,7	13,0	13,0	13,0	13,0
fibre flax, EUR/ha	62,8	43,4	43,4	44,0	-
perennial herbs for seed and fodder crop mix, EUR/ha	9,6	-	-	-	-
suckler cows, EUR/head	115,8	89,8	89,8	87,0	105,0
bulls, EUR/head	157,3	173,8	231,7	173,0	205,0
bull production extensification, EUR/head	-	-	8,7	-	-
slaughtered adult cattle, EUR/head	8,7	-	8,7	-	-
ewes, EUR/head	11,6	11,3	7,5	5,8	4,4
quota milk, EUR/t	20,3	20,3	18,8	15,1	16,0

* Total sum of coupled and decoupled payments.

Source: Ministry of Agriculture.

In accordance with maximum limits of the TNA payments established by the EC for agricultural products, in 2015, due to the reduced TNA share, payments for quota milk had to decrease, even though after the number of eligible applicants got reduced, the size of payment increased by 6% (in 2015 – 16.0 EUR/t).

The TNA disbursed payments (except payments for ewes) are decoupled from production and the reference period thereof fluctuates from 2004 to 2011. To ensure the expediency of granting the aid in question, from 2014 no aid has been foreseen for areas under crops and animals according to the 2004–2006 reference, i.e. for declared grain crops, slaughtered adult cattle, and bull breeding extensification, and from 2015 for fibre flax.

More than 139 thousand applicants declared the UAA and other areas, including 1012 legal entities. The declared land totalled 2.87 million ha. Compared to 2014, the number of applications submitted was by 3.6 lower, whereas the declared area increased by 31.2 thou. ha. Since the direct payment structure during the new programming period differs from the previous period, payments to applicants were disbursed according to different aid schemes: the basic payment, payment for first hectares, payment for a young farmer, and the coupled support.

Market regulation measures. Market regulation measures are used as market safeguard measures in case of disturbances on the market and are a stability guarantee in the agricultural sector.

The market regulation measures, undertaken in Lithuania from 2004, cover intervention purchase, storage and sale of grains, butter, skimmed milk powder and bovine meat from intervention warehouses. The market regulation measures also cover support being granted for private storage of cheeses, butter, skimmed milk powder, white sugar, bovine meat, pork, mutton and goat meat, for usage of sugar in the production of industrial products, for fresh fruit and vegetables withdrawn from the market, for non-harvesting of fruit and vegetables and green harvesting, aid is granted for consumption of milk and milk products in educational establishments, the programme for promoting fruit consumption at schools is being implemented, etc.

Export of Lithuania's agricultural products is also promoted by market regulation measures, while implementing a support scheme for information and sale promotion actions for agricultural products on the domestic market and third countries. This scheme in 2005 consisted of eight programmes, foreseeing dissemination of information and sale promotion on the domestic market of milk products, EU-manufactured hard cheese and cheese sausages, organic products, and fruit and vegetables grown in the EU; publicity increase in the Baltic countries of fruit and vegetables processed in Europe, wines with references to the protected place of origin or protected geographic references as well as wines with references to wine grape varieties; sale promotion of meat and meat products of the Baltic region and publicity increase and sale promotion in third countries of European spirits with protected geographic references and wines with references to wine grape varieties.

In 2015, for implementing of all eight programmes under the said scheme EUR 4.7 million (EU funds – EUR 3.0 million, national budget funds – EUR 1.7 million) was paid, i.e. by 7% more than in 2014 (EUR 4.4 million).

For several successive years already in Lithuania, aid with food products for the deprived people has been successively provided. The Programme of Food Distribution from Intervention Stocks to the Most Deprived Persons in Lithuania was carried out until 2013, the last payments thereof have been made in 2014. From 2014 the projects deriving from the Fund for European Aid to the Most Deprived have been implemented in Lithuania – Aid with Food Products I, II and III. The leading institution of the said Project is the Ministry of Social Security and Labour.

With an aim to improve eating habits of children and juveniles, to promote the consumption of dairy products on the domestic market and to reduce disbalance on the dairy product market, the support programme “Milk for Children” is being implemented in Lithuania. In 2015, 1580 educational establishments benefited from this programme. The number of supported children in the mentioned educational establishments amounted to 214.5 thousand, by 1.9% less than in 2014 (218.7 thousand). For implementation of this measure in 2015 EUR 3.5 million was paid out (of which the national budget funds EUR 3.2 million), i.e. by 12.9% more than in 2014.

The programme for promoting of fruit consumption at schools in Lithuania has been implemented from 2009. It is aimed at promoting preschool children and primary schoolchildren to appreciate fruit and vegetables, to get used to their consumption in the future. In the school year 2014–2015, EUR 2.1 million was allocated from the EU and national budget for promoting fruit consumption in schools. The Programme was

carried out (November 2014 – May 2015.) in 1441 educational establishments, with the participation of about 210.6 thousand preschool and primary schoolchildren to whom organic or exclusive quality apples, apple puree, pears, carrots and organic or exclusive quality apple, pear, carrot, currant, strawberry, raspberry, chokeberry juice and their mixes. Aiming to use effectively the funds granted for the programme, since the 2014–2015 programme year, the limit of the monthly funds fixed per preschool child and primary schoolchild is EUR 1.14 without value added tax (VAT), and from April 2015 – EUR 2.20. In total, for the 2014–2015 school year programme, the aid amounting to EUR 1324.2 thousand was calculated for the applicants and VAT totalling EUR 276.9 thousand was refunded (by 44.8% less than in the 2013–2014 school year), of which 74.4% consisted of the EU funds.

In order to stabilise prices and situation on the market due to the ban by the Russian Federation on import of fruit and vegetable products, fruit and vegetable cultivators are granted aid for withdrawal from the market products and non-harvesting measures. Under this provisional support measure, within the support granting period of October –December 2014, 23 payment applications were received, of which according to 11 payment applications in 2015 EUR 92.4 thousand was disbursed from the EU funds and EUR 772.8 of VAT compensation. This support was received by 6 farmers for withdrawal from the market of 715.8 t of carrots and 239.2 t of cabbage. In January–June 2015, 658 t of carrots were withdrawn from the market. The aid measure was benefitted by 4 farmers and EUR 84.3 thousand of aid and EUR 749.7 of VAT compensation was calculated. In total, according to this provisional measure in 2015 EUR 176.7 thousand of aid and VAT of EUR 1.5 thousand were paid out from the national budget funds.

In 2015, private storage services for agricultural and food products have been used intensively: applications were submitted for storage of 5049 t skimmed milk powder, 1816 t butter and 1163 t cheese. In total 10.2 thou. t of food products (7255 t skimmed milk powder, 1816 t butter and 1163 t cheese) were under storage, i.e. by 3.3 times more than in 2014. In 2015, the disbursed support amounted to EUR 169.9 thousand, by almost 9 times more than in 2014 (EUR 18.9 thousand). Support for private storage is 100% funded from the EU budget.

An embargo on import of dairy products imposed by the Russian Federation resulted in milk quota abolition since 2015 and the especially difficult position formed on the global milk market; therefore, complex measures were searched in Lithuania for supporting of dairy farms by using all possible EU market regulation measures and permissible maximum national aid. The EU granted the exclusive provisional support to all Member States for tackling problems on the markets. The EC also allowed the countries to provide additional support to their farmers from the national budget that may reach 100% of the EU target support allocated for the country. In 2015, special support was foreseen for milk producers who suffered losses from Russia's import embargo and provisional exclusive support to milk producers. Under these measures in 2015 EUR 52.47 million were paid out, of which the national budget funds made 50% of the amount.

To facilitate effects of Russia's embargo on import, the intervention purchase of skimmed milk powder has been actively carried out from 2015. A total of 30 applications were submitted where the total amount of skimmed milk powder sold for intervention made 8.9 thou. t, of which, however, just 26 applications were satisfied in 2015, according to which 7.9 thou. t skimmed milk powder was brought to

warehouses. For intervention skimmed milk powder purchases in 2005 EUR 128.5 thousand were spent, of which EUR 63.5 thousand from the national budget funds.

To compensate losses as a result of African swine fever, in 2015, EUR 787.8 thousand of support was paid out in Lithuania to pig breeders in Zone III who sold pigs to slaughterhouses and lost part of income due to differences in prices, as compared to the average purchase price for pigs paid in the country. Support could be used only by those pig breeders of Zone III of African swine fever who have registered their pigs, used biological safety measures and followed the biological requirement measures at pig keeping places.

Due to the application of new provisional measures, funding of all market regulation measures has increased. In 2015, a total of EUR 65.2 million was spent, i.e. by 3.8 times more than in 2004 (EUR 17.2 million) (Fig. 1.8).

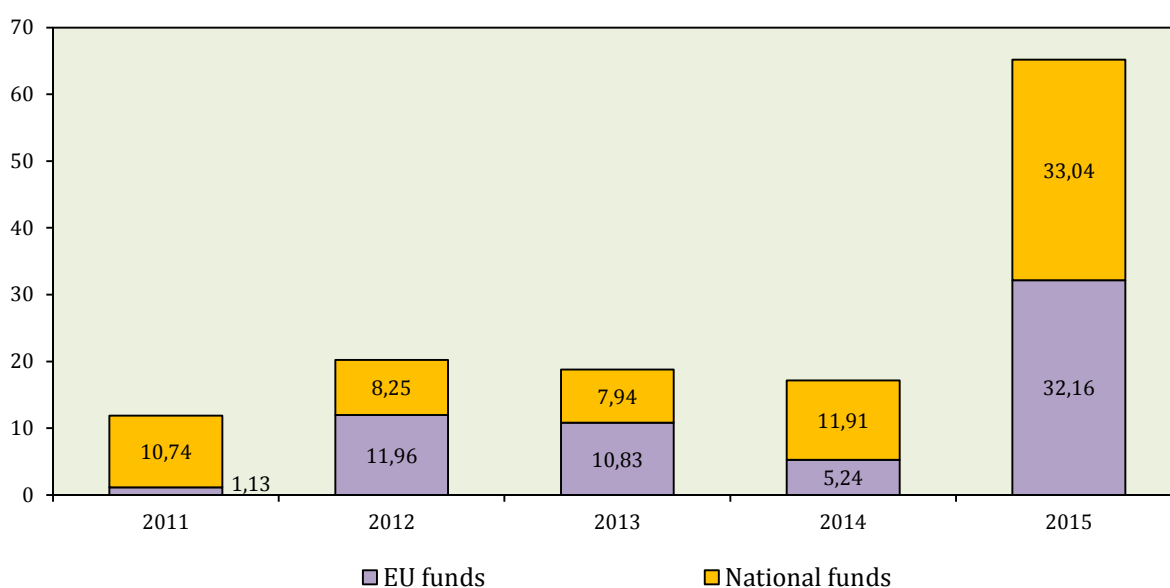


Fig. 1.8. Funds for market regulation measures in 2011–2015, EUR million

Source: National Paying Agency.

Even though in 2015, when funding the market regulation measures in Lithuania, part of the EU funds (EUR 32.2 million) increased by more than 6 times, as compared to 2014 (EUR 5.2 million), and the national budget funds by about 3 times, proportion of these budgets was almost equal – 50.7% (national budget funds) and 49.3% (EU funds).

Rural development measures. Aiming to achieve rural development targets which contribute to the smart, sustainable and inclusive growth strategy “Europe 2020” and with account of the main problems, identified when making an analysis of the situation in the Lithuanian countryside, and the most important needs during the new 2014–2020 programming period, the following six principal EU rural development priorities shall be implemented:

- fostering knowledge transfer and innovation in agriculture, forestry and rural areas (allocated 2.7% from the EAFRD funds);
- enhancing farm viability and competitiveness of all sectors of agriculture in all regions, and promoting innovative farm technologies and sustainable forest management (correspondingly, 30.6%);
- promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture (7.9%)
- restoring, preserving and enhancing ecosystems related to agriculture and forestry, (26.8%);
- promoting resource efficiency and supporting the shift toward a low-carbon and climate-resilient economy in the agriculture, food and forestry sectors (8.5%);
- promoting social inclusion, poverty reduction and economic development in rural areas (15.1%).

Implementation of the Rural Development Programme (RDP) measures for 2014–2020 has been started for these priorities in 2015 in Lithuania. They consist of 16 key measures and 2 continuous measures (Table 1.8).

In consideration of the RAP 2014–2020 budget (EUR 1.977 billion), a balance has been established between environmental and climate change measures (36% of the total 2014–2020 RAP funds is foreseen to be allocated) and investment support, knowledge transfer, training, advisory and co-operation measures.

According to the 2014–2020 RDP measures over 96.8 thousand applications were collected in 2015, requesting support for EUR 719.7 million. Already at the first stages of support administration, special attention was devoted to the prevention of violations. In the new programming period, application was started of methods for identifying the possibly illegal conditions for receiving support which help to identify whether artificial conditions have been created for project funding. In 2015, methods for evaluation of investment cost justification were improved. Moreover, applications have been evaluated according to new methods, attributing the number of points for compliance with the identified selection criteria. With the requested amount of support exceeding the granted one, the order of priority for applications has been set. Prioritising the projects was needed according to many 2014–2020 RDP measures. These preventive measures for selection of applications contributed to the finally approved number of applications and the support amount. A total of 84.4 thousand of applications under 2014–2020 RDP measures were approved in 2015 (by 12.8% less than submitted), and the approved support amount was even by 2.6 less than requested – EUR 274.2 million.

In 2015, as in the previous funding period, one of the most popular activities was modernisation of agricultural holdings. 2030 economic entities applied for investments in agricultural holdings, the total value of the submitted applications totalling EUR 239.7 million. For financing this activity EUR 150 million was allocated, therefore, the order of priority was set for applications and accordingly 1043 applications were approved, their value making EUR 104.4 million.

Table 1.8. Financial plan of the Lithuanian Rural Development Programme for 2014–2020

Measure	Public support		Of which:		
	amount, EUR thou.	share, %	EAFRD amount, EUR thou.	contribution, %	national funds, EUR thou.
Knowledge transfer and information actions	23439,5	1,2	19923,5	85	3515,9
Advisory services, farm management and farm relief services	4588,2	0,2	3900,0	85	688,2
Quality schemes for agricultural and food products	4224,7	0,2	3591,0	85	633,7
Investments in tangible assets	620349,1	31,4	526949,2	75–85	93399,9
Farm and business development	223722,0	11,3	190163,7	85	33558,3
Basic services and village renewal in rural areas	76110,8	3,9	64694,2	85	11416,6
Investments in forest area development and improvement of the viability of forests	122383,7	6,2	95163,5	75–85	27220,1
Setting-up of producer groups and organisations	1788,8	0,1	1520,5	85	268,3
Agri-environment and climate	142415,3	7,2	106811,5	75	35603,8
Organic farming	150784,7	7,6	113088,5	75	37696,2
Payments on "Natura 2000" and the Water Framework Directive	6564,7	0,3	4923,6	75	1641,2
Payments to areas facing natural or other specific constraints	287036,1	14,5	215277,1	75	71759,0
Forest-environmental and climate services and forest conservation (continued commitments)	1274,3	0,1	955,7	75	318,6
Cooperation	23963,4	1,2	20368,9	85	3594,5
Risk management	17460,3	0,9	14841,2	85	2619,0
LEADER programme	113865,1	5,8	96785,3	85	17079,8
Technical assistance	67439,4	3,4	57323,5	85	10115,9
Early retirement (continued commitments)	90361,4	4,6	76807,2	85	13554,2
Total	1977771,6	100	1613088,2	81,6	364683,4

Source: National Paying Agency.

Under the RDP measure “Farm and Business Development”, the activity “Support for Setting up of Young Farmers” ranked second as to popularity. In 2015, the requested support amounted to EUR 96.6 million according to 1822 submitted applications. The demand for support was by 3 times higher than the amount allocated for this activity (about EUR 30 million). The number of approved applications was by one-fourth less than the submitted applications (401 applications), the amount thereof making EUR

22.4 million. In total, in 2015, 654 applications were approved under the measure “Farm and Business Development”, their amount totalling EUR 26.2 million, and the disbursed part making EUR 10.1 million (38.5% of the approved amount).

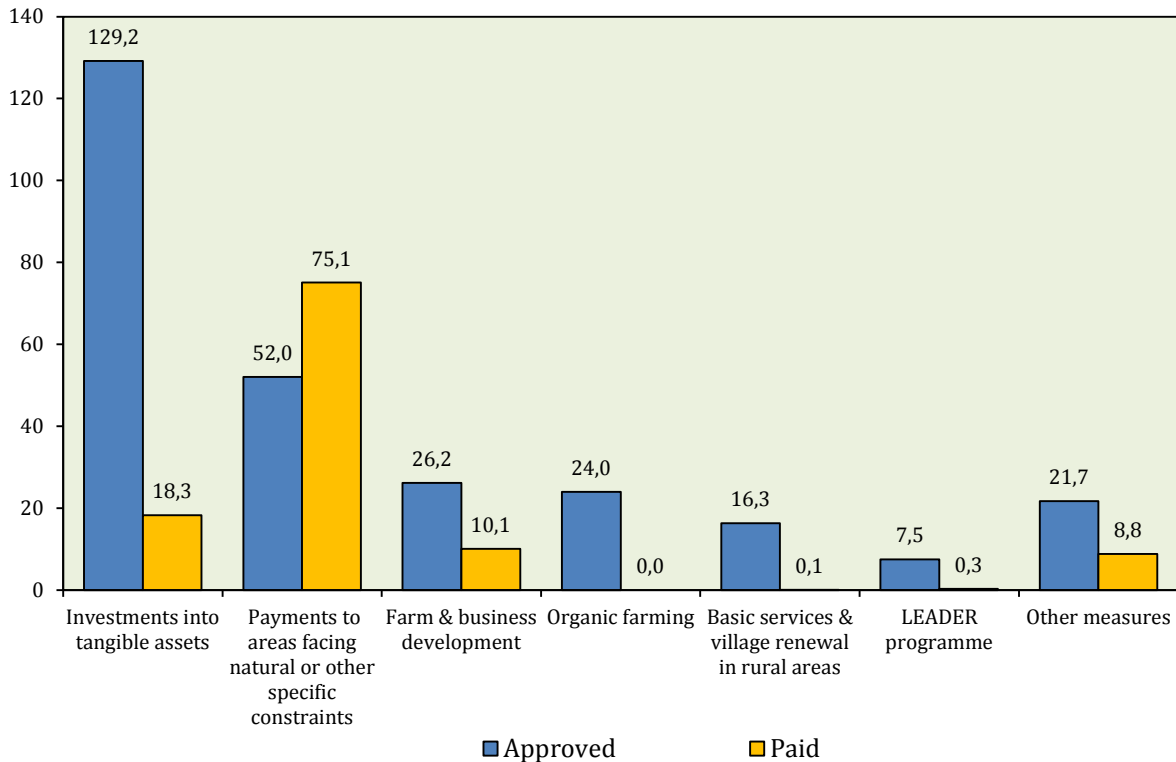


Fig. 1.9. Funds approved and paid in 2015 under the Lithuanian Rural Development Programme for 2014–2020 by measures, EUR million

Source: National Paying Agency.

Even though in 2014 quite a lot of applications were submitted (72.2 thousand) under the measure “Payments to Areas facing Natural or Other Specific Constraints” and their major part (71.5 thousand) was approved, payments under this measure started only the next year. Under the measure in question 75.2 thousand applications were submitted in 2015, of which 69.6 thousand were approved, the support amount totalling EUR 52.0 million. A total of EUR 75.1 million of support has been disbursed in 2014–2015.

Of much interest was support to organic farming, which was also provided under RAP 2007–2013. In 2015, even 2.9 thousand applications were received, of which support was granted according to 2.4 thousand applications and amounted to EUR 24.0 million; however, in 2015, payments under this measure have not been effected.

Applicants for support were also numerous under other rural development programme activities. Like in 2007–2013, support to “LEADER Programme” also remained in the new 2014–2020 RAP period. In 2015, under this measure the local activity groups submitted applications for support to the implementation of the local projects under local development strategy. 49 applications were submitted, requesting for EUR 110.0 million, whereas in 2015 by 10% less applications (4 applications) were appraised and approved for disbursing EUR 7.5 million. In 2015, under the LEADER programme only the preparatory support – EUR 0.3 million – was disbursed.

The major portion of support in 2015 was paid out in Vilnius, Utena and Panevėžys counties –EUR 26.8 million, EUR 16.1 million and EUR 14.9 million, respectively, the least in Marijampolė County – EUR 2.3 million. In 2015, applications were most actively submitted in Utena, Vilnius and Panevėžys counties –19.2, 16.9 and 11.0 thousand, respectively, the least number in Marijampolė County – about 2.6 thousand.

In 2015, commitments that remained from 2007–2013 RAP measures have been fulfilled. In total, according to all four axes of the RAP for 2007–2013 the disbursed support in 2015 amounted to EUR 257.0 million, the major part (45.4%) – according to the first axis “Improving the Competitiveness of the Agricultural, Food and Forestry Sectors”.

State aid. Economic entities, the activities thereof generate economic benefit, are stimulated by the State aid measures, whereas under free economic conditions it is impossible. The funds from the national budget are allocated for implementing these measures. In 2015, the following State aid measures were funded from the said funds: biofuel production, compensation of part of insurance premiums for agricultural activity entities, pedigree livestock breeding, acquisition of pedigree animals, animal by-products handling, safeguarding of certified national heritage products, promotion of manufacture, popularisation and sales of qualitative agricultural and food products, agricultural advisory services, performance of applied and international research, knowledge transfer and information activities, etc.

Aiming to promote biofuel production and use of agricultural production for the needs other than food, the major portion of the State aid funds in 2015 was disbursed under the measure “Support to the Development of Biofuel Production” – EUR 8.5 million (39.9% of the total funding of the State aid measures in 2015), i.e. 26.1% less than in 2014 (EUR 11.5 million). Under the above-mentioned measure, the State aid is granted by compensating part of the price for rape and cereals purchased for the production of rape oil and dehydrated ethanol.

Like in 2013–2014, farmers of Lithuania used the crop insurance services rather passively. In 2015, under the State aid measure “Support for Compensating Insurance Premiums” EUR 2.2 million was disbursed, i.e. by 4.8% more than in 2014 and by 2.5 times less than it was paid out on the average in 2010–2012.

In 2015, farmers in Lithuania were not only further encouraged to improve pedigree qualities of animals of all types, production quality, to use more efficiently the genetic resources, to preserve the gene pool by paying the aid under the measure “Pedigree Livestock Breeding”, but also payment of the State aid support under the measure “Support for Acquisition of Pedigree Animals” was renewed seeking to improve the genetic quality of the herds of cattle, sheep and goats of meat breeds with high-valued pedigree animals, improving the quality of manufactured agricultural products. According to both measures, in 2015, EUR 4 million (19.0% of the funds foreseen for the State aid measures) was paid out. According to the measure “Support for Acquisition of Pedigree Animals”, 244 applications were approved in 2015, the major part thereof – for support for acquisition of cattle of meat breed. Part of the support was disbursed in 2015 – EUR 781.1 thousand. According to the rules of the said support, up to 30% of the purchase price of pedigree cattle, sheep and goats of meat breeds is being compensated.

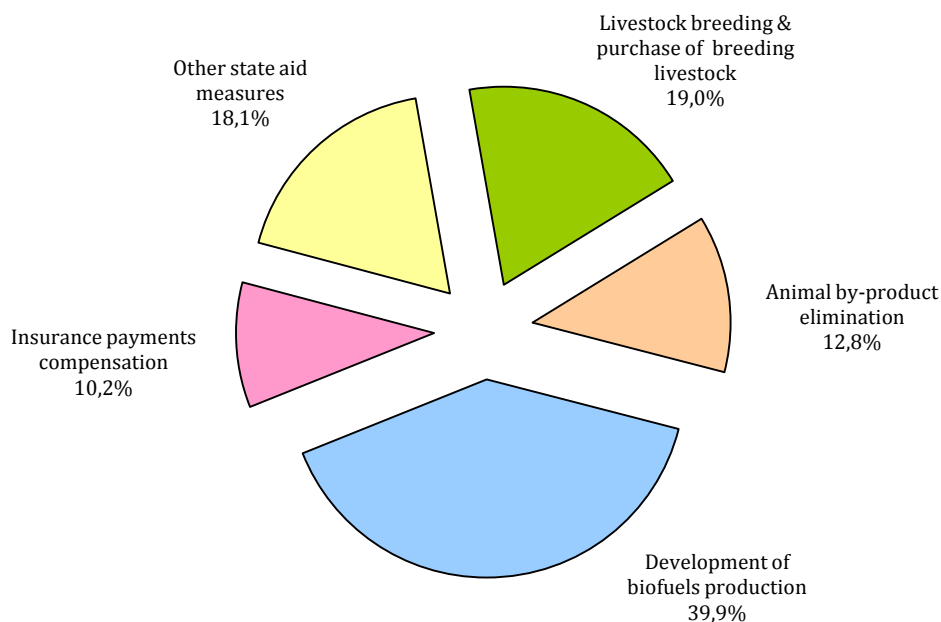


Fig. 1.10. Structure of state-financed measures in 2015

Source: Ministry of Agriculture.

In 2015, as in the previous years, the State aid was actively used seeking to utilise the –dead animals. Under the State aid measure “Support for Handling of Animal By-products” in 2015 almost EUR 2.7 million (10.2% of the funds foreseen for funding the State aid measures) was disbursed, i.e. about 3.6% less than in 2014.

In 2015, the amount paid for funding the carried out State aid measures reached EUR 21.2 million, i.e. by 8.2% less than disbursed in 2014 (EUR 23.1 million). Such decrease in the funding of the State aid measures was also predetermined by the transfer of payments for part of measures, foreseen in 2015, due to the not prepared payment and administration procedure related to the regulation changed during the new programming period, to the year 2016 (e.g., “Support for Compensation of Losses due to the Use of Phytosanitary Measures”).

The year 2015 was noted that in addition to the said State aid measure, encouraging the acquisition of pedigree animals, a list of support measures was also complemented with the support for persons who slaughtered pigs compulsively in the buffer zone established by the competent institution for acquisition of farm animals, except pigs (EUR 313.0 thousand paid put).

4. Economic entities in agriculture and food industry

Agricultural entities. According to AIRBC data, the number of agricultural entities that declared UAA by categories changed unevenly within 2011–2015: the number of agricultural companies and other agricultural enterprises increased by 37.9%, while farms of natural persons decreased by 17.2% (Table 1.9).

Table 1.9. Number of agricultural entities who declared agricultural area in 2011–2015

Agricultural entities	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Agricultural companies and enterprises	734	796	844	938	1012	37,9
Households, thou.	166,5	158,7	150,2	141,5	137,9	-17,2

Sources: Data of the Simplified Direct Payments Information System.

The average size of a farm by the UAA area declared by all agricultural entities in 2015 in Lithuania was 20.6 ha (Table 1.10), i.e. by 3.5% larger than in 2014 and by 26.4% than in 2011. In total, the agricultural entities in 2015 declared the number of farms by 2.5% less than in 2014, their declared area increased slightly – by 1.2%. Even though in 2015, as in the previous years, farms with UAA up to 5 ha constituted around half of the farms which declared UAA, their number in 2015 decreased by 5.0%. The number of such farms as compared to 2011 got reduced by 22.1 thousand, or by 24.9%. A group of farms with 5.1–10 ha is reducing every year. Within the reference period the number of farms in this group reduced by 16.5%, whereas their part in the structure changed insignificantly. The number of farms in the groups from 10.1 to 20 ha and from 20.1 to 50 ha reduced by 9.2 and 1.6%, respectively. During the reference period the number of farms increased in the groups of farms with 50.1–100 ha and 100.1–500 ha by 9.8% and 21.1%, respectively.

Table 1.10. Structure of farms by declared agricultural area in 2011–2015

Farm size, ha	2011		2012		2013		2014		2015	
	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %
≤ 5	88,8	53,1	82,7	51,8	76,6	50,8	70,2	49,2	66,7	48,1
5,1–10	36,3	21,7	34,8	21,8	33,6	22,2	31,2	21,9	30,3	21,8
10,1–20	20,6	12,3	20,1	12,6	19,0	12,6	18,7	13,2	18,7	13,5
20,1–50	12,2	7,3	12,1	7,6	11,8	7,8	12,0	8,4	12,4	8,9
50,1–100	5,1	3,0	5,3	3,3	5,3	3,5	5,3	3,7	5,6	4,0
100,1–500	3,8	2,3	4,1	2,6	4,3	2,8	4,5	3,2	4,6	3,3
> 500	0,4	0,3	0,5	0,3	0,5	0,3	0,5	0,4	0,5	0,4
All farms	167,3	100	159,5	100,0	151,1	100,0	142,5	100,0	138,9	100,0
Average	16,3		17,5		18,5		19,9		20,6	

Sources: Data of the Simplified Direct Payments Information System.

Reduction in the number of farms was conditioned by several factors. Farms are becoming larger due to the restructuring processes. Several senior farmers receiving EU support retreat from the commodity agricultural production. Moreover, some farmers refuse to declare areas because of the stringent agrarian and environmental requirements.

In Lithuania 83% are small farms, up to 20 ha; they cover 23% of the total area of farms in the country. Analysis of farm structure in the EU countries by area and number shows that situation in Bulgaria is relatively worse (by number 99%, by area 43%), Slovenia (95%, 69%), and Greece (95%, 42%). In Malta and Cyprus farms up to 20 ha prevail. The major part of large farms (over 100 ha) is in the United Kingdom (by number 22%, by area 75%), Luxembourg (22%, 54%) and France and Denmark – 21% and 20%. In Slovakia and the Czech Republic farms larger than 100 ha by area comprise 90% and 88% of all UAA, respectively, and by number – 10% and 18%. In the above-mentioned countries farms smaller than 5 ha by number make 59% and 19%, respectively. In Lithuania farms with more than 100 ha constitute 4% and they own 50% of all UAA (Table 1.11).

Country	<5 ha		5,1–20 ha		20,1–50 ha		50,1–100 ha		>100 ha	
	area	number	area	number	area	number	area	number	area	number
Belgium	1	15	10	31	30	31	34	17	24	6
Bulgaria	4	87	4	7	4	3	4	1	84	2
Czech Republic	0	19	3	36	4	18	5	9	88	18
Denmark	0	7	6	38	10	21	15	14	69	20
Germany	0	9	7	36	14	25	21	18	57	12
Estonia	2	33	8	38	8	13	8	6	74	9
Ireland	1	7	13	36	36	39	28	15	23	3
Greece	17	77	25	19	16	4	7	1	35	0
Spain	4	52	11	26	14	11	15	5	56	5
France	1	25	3	18	10	17	24	20	62	21
Croatia	13	69	22	24	13	4	11	2	40	1
Italy	11	59	23	28	22	8	17	3	27	1
Cyprus	31	90	22	8	17	2	13	1	17	0
Latvia	4	43	18	39	15	12	10	3	53	4
Lithuania*	6	48	17	35	13	9	14	4	50	4
Luxembourg	0	16	3	17	9	16	34	29	54	22
Hungary	5	85	10	9	11	3	10	1	64	2
Malta	79	97	20	3	1	0	0	0	0	0
Netherlands	2	27	12	29	33	26	34	14	20	4
Austria	4	31	23	39	36	22	21	6	16	2
Poland	13	54	35	36	21	7	10	1	21	1
Portugal	9	72	13	19	11	5	9	2	58	2
Romania	29	92	15	7	4	1	4	0	48	0
Slovenia	21	60	48	35	18	4	6	1	7	0
Slovakia	1	59	3	22	2	6	3	3	90	10
Finland	0	5	9	32	28	35	32	19	31	8
Sweden	1	11	10	44	15	21	19	12	55	12
United Kingdom	0	8	4	30	8	22	13	18	75	22

* 2015

Sources: Eurostat, AIRBC data.

According to the AIRBC data, by the end of 2015, the Register of Holdings held a record of 181.8 thousand holdings. This is by 6.2% less than in previous year. Reduction in holdings is conditioned by the fact that from 2011 at the beginning of each year the holdings not complying with the requirements of the law are selected and the removal from registration of the holdings the data thereof has not been renewed within the past three years is initiated. Even though the number of holdings got decreased, the land area of holdings managed by the owners increased by 3.1%, up to 3.02 million ha of the total land area. The UAA area also increased during the year – by 1.2% and reached 2.45 million ha. The average size of a holding in 2015 by total holding area constituted 16.7 ha, by UAA – 13.5 ha. Even 75% of all the holdings were up to 10 ha, and holdings, exceeding 50 ha, accounted for 5% (Fig. 1.11).

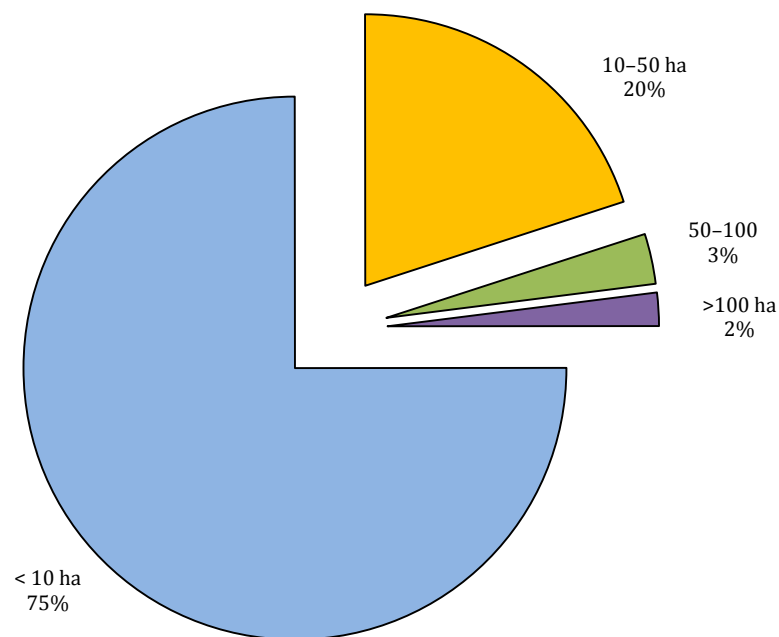


Fig. 1.11. Distribution of holdings by size group in Lithuania in 2015

Sources: Data of the Register of Agriculture and Rural Business of the Republic of Lithuania.

More than a half of the UAA is managed by the owners of registered farmers' farms – 67.4% of the total number of the owners of the holders. At the end of 2015, as compared to 2014, the number of registered farmers' farms increased by 1.5% – to 122.5 thousand. The average size of the farmer's farm is 9.4 ha. Within 2011–2015 the structure of farmers' farm by the utilised land area has changed insignificantly in the group of up to 3 ha, while got decreased in the groups from 10 to 20 ha and from 20 to 50 ha. In Lithuania, farms utilising from 3 to 10 ha of land prevailed (41%). Farms up to 3 ha constituted 33%, the largest farms accounted for 2% of all farmers' farms.

In 2015, the age of 47.2% of all registered farmers was 40–65. The share of young farmers under 40 comprised 15.6%, and those at the age of retirement (over 65) – 37.2% (Fig. 1.12).

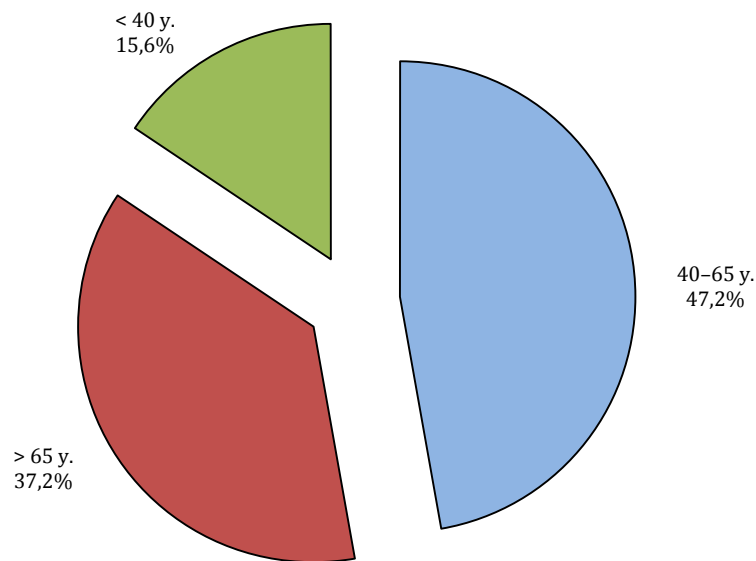


Fig. 1.12. Distribution of registered farmers by age in 2015

Source: Data of the Register of farmers' farms of the Republic of Lithuania.

In 2015, the certified organic production area in Lithuania covered 220.2 thou. ha. During the period of 2011–2015 the certified area increased by 39.4% and the number of farmers by 2.8%. In 2015, as compared to 2014, the area increased by 31.2%, the number of farms by 8.8% (Fig. 1.13). The average size of the certified farm (including fisheries farms) in 2015, as compared to 2014, increased from 68.3 to 82.4 ha. In 2015, 42.2% of organic farms kept animals, mostly cattle (52.8 thousand heads), sheep (25.1 thousand), and poultry (6.2 thousand). As compared to 2014, the number of certified cattle increased by 50.0%, sheep by 24.3%, and poultry by 21.0%.

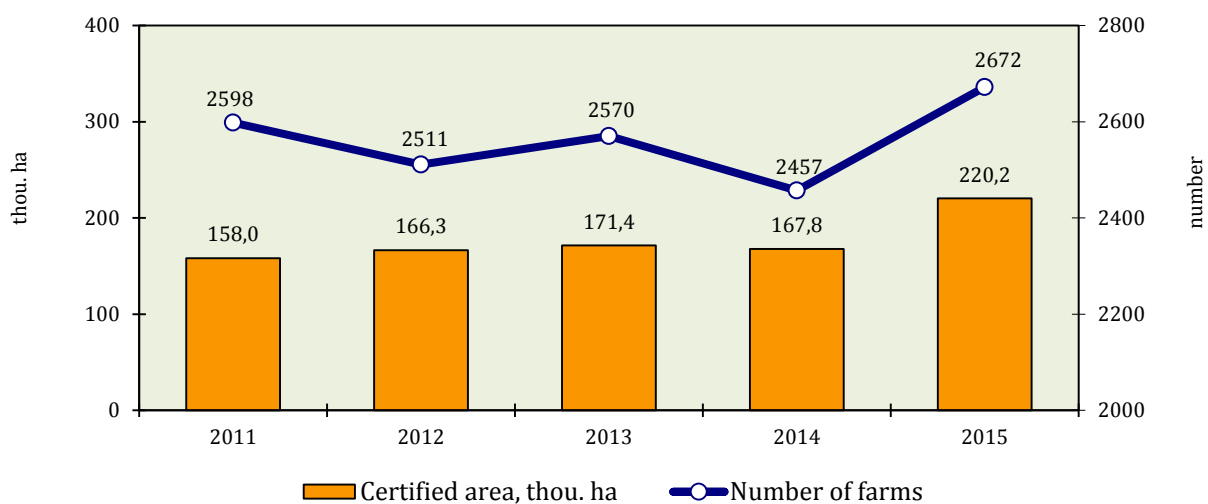


Fig. 1.13. Number of organic farms and certified area in Lithuania in 2011–2015

Source: Data of the Public Enterprise „Ekoagros“.

The share of organic areas in the total UAA structure is close to the average in EU-28. In Lithuania these areas comprised 5.8% of UAA, on the average in EU-28 – 5.9%. The major part of organic areas is in Austria, Sweden and Estonia, respectively, 19.3, 16.5 and 16.3 (Fig. 1.14).

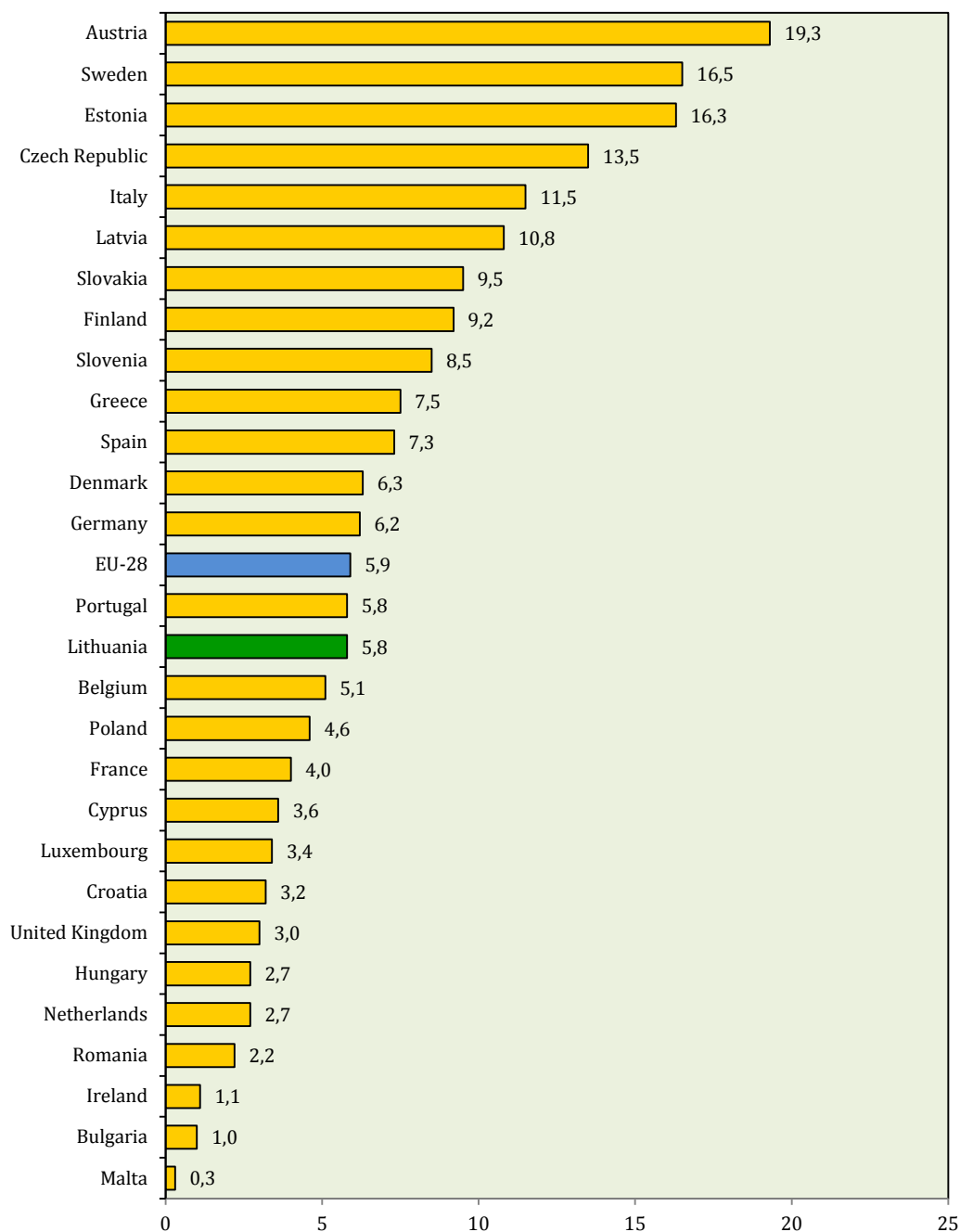


Fig. 1.14. Share of organic area in total UAA in EU countries in 2014, %

Source: Eurostat.

In Lithuania, as in many EU countries, the average area of an organic farm is larger than the average farm in the country. In the old EU countries, this difference is not distinct: in France it is higher by 27.9%, in Germany by 2.6%. Considerably bigger differences are seen in the new Member States: in Hungary the average organic farm was by 7.9 times larger than the average in the country, in Romania by 5.7 times, and in Slovakia by 5.5 times. Tendencies are similar in Lithuania – an organic farm is by 4.0 times larger than the average in the country.

Food industry enterprises. At the end of 2015, 980 enterprises for manufacture of food products and beverages were in operation in Lithuania. 20.9% of all enterprises were individual. During the period of 2011–2015 the total number of enterprises increased by 16.3%, and the number of individual companies by 1.5% (Fig. 1.15).

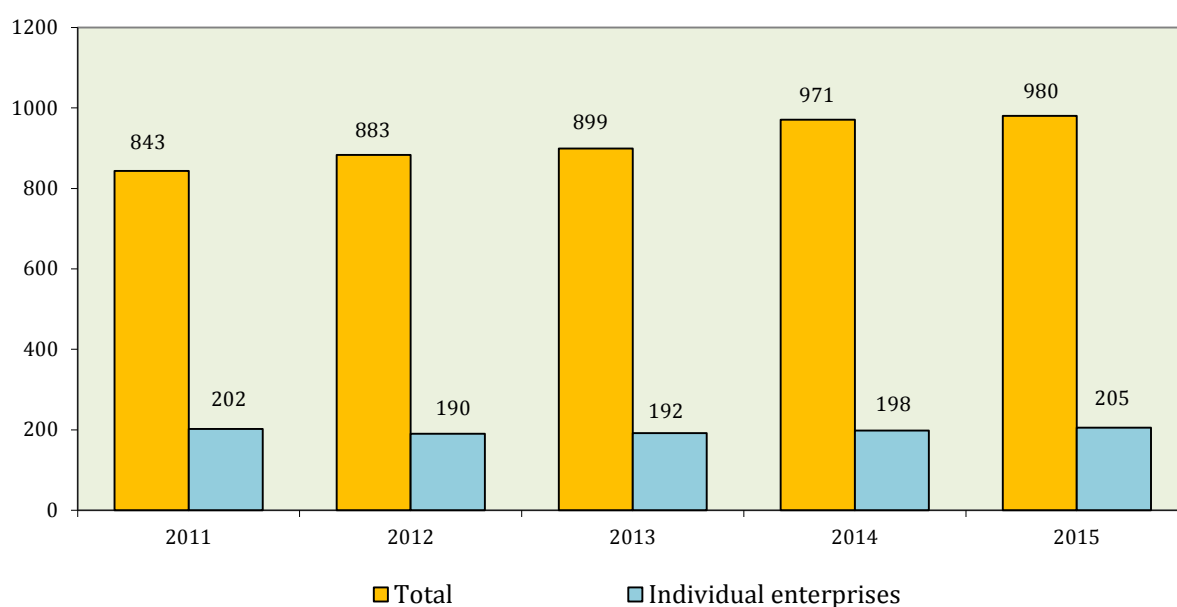


Fig. 1.15. Number of enterprises of manufacture of food products and beverages in 2011–2015 (at the end of the year)

Source: Statistics Lithuania.

According to the Department of Statistics data, most of food production companies are located close to the major cities. 25.8% of all food and beverage production enterprises are sited in Kaunas County, 22.9% in Vilnius County (Fig. 1.16). The least number of food industry enterprises is in the counties of Utena and Alytus, accounting for 3.0% and 3.6%, respectively. In 2015, if compared to 2014, the number of enterprises increased most of all in Utena, Vilnius and Kaunas counties – by 7.4%, 5.2% and 3.3%, respectively. Decrease was noted in Šiauliai (12.1%), Tauragė (4.2%) and Panevėžys (2.8%) counties.

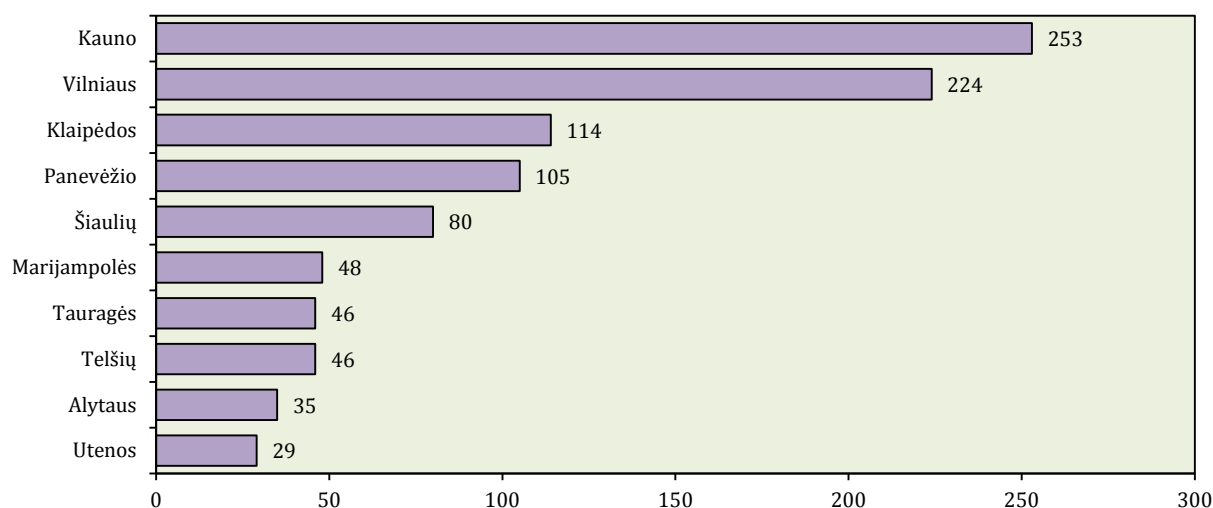


Fig. 1.16. Number of enterprises of manufacture of food and beverages by county in 2015 (at the end of the year)

Source: Statistics Lithuania.

Over the reference period of 2011–2015, the number of enterprises increased in all sectors. The number of enterprises engaged in the manufacture of grain milling products, starch and starch products remained the same as at the beginning of the period. The number of enterprises most of all increased within five years in the sectors of preparation, processing and canning of fruit, berries and vegetables, preparation and processing of fish and fish products – respectively, by 43.8% and 31.8%. The number of enterprises for production of milk and dairy products as well as for production of meat and meat products increased at a slower pace –by 13.8% and 5.0%, respectively (Table 1.12).

Table 1.12. Entities of the food industry in 2011–2015

Indicators	2011	2012	2013	2014	2015
Production of food products and beverages					
Number of enterprises	843	883	899	971	980
Number of employees	40999	40828	41385	42843	42480
Sales in domestic market, EUR mill.	2126,2	2281,5	2390,2	2501,6	2483,8
Export value, EUR mill.	1439,9	1659,0	1765,3	1768,3	1656,3
Production of grain milling products and starch					
Number of enterprises	28	28	28	29	28
Number of employees	1245	1063	798	1213	1196
Sales in domestic market, EUR mill.	86,4	79,6	65,7	53,3	55,5
Export value, EUR mill.	102,3	102,9	115,9	125,5	149,2
Production of meat and meat products					
Number of enterprises	159	167	167	177	167
Number of employees	8726	8372	8185	8415	7909
Sales in domestic market, EUR mill.	378,4	515,4	536,2	553,3	507,8
Export value, EUR mill.	151,4	171,2	167,2	141,4	140,0

Indicators	2011	2012	2013	2014	2015
Production of milk and dairy products					
Number of enterprises	29	25	31	33	33
Number of employees	5526	5713	7735	7557	7444
Sales in domestic market, EUR mill.	551,2	548,0	544,7	554,1	499,9
Export value, EUR mill.	465,7	527,7	581,0	594,3	408,0
Preservation and processing of fish and fish products					
Number of enterprises	44	49	51	53	58
Number of employees	4181	4565	4658	4895	4611
Sales in domestic market, mill. EUR	74,2	76,7	113,8	186,1	198,9
Export value, mill. EUR	286,5	296,9	289,8	323,0	372,8
Preparation, processing and conservation of fruit, berries and vegetables					
Number of enterprises	32	39	39	41	46
Number of employees	934	1053	1024	1058	1186
Sales in domestic market, EUR mill.	29,0	39,8	43,2	42,4	45,4
Export value, EUR mill.	21,7	29,8	38,2	30,6	30,9

* VAT and excise duty incl.

Source: Statistics Lithuania.

The total number of employees involved in the manufacture of food products and beverages in 2015, as compared to 2014, decreased insignificantly – by 0.8%, and in comparison with 2011 increased by 3.6%. During the reference period, the highest decrease in the number of employees was fixed in 2012, and increase in 2014. Tendencies in various sectors varied. In 2015, as compared to 2014, the number of employees increased most significantly in the enterprises involved in the preparation, processing and canning of fruit, berries and vegetables – by 12.1%. In other sectors the number of employees went on reducing within the past years, mostly in the sector of the manufacture of meat and meat products (6.0%). In 2015, the majority of enterprises operated in the sectors of bakeries and manufacture of bakery products (380 enterprises) and manufacture of meat and meat products, whereas by the average employee number per enterprise they were relatively smaller than the enterprises in other sectors.

With an increase in the number of enterprises, the average number of employees per enterprise dropped by 2.3%. In 2015, the average number of employees per enterprise in different sectors varied substantially: the smallest number was in the sector of animal and vegetable fats and oils – 10 employees. In 2015, the average number of employees per enterprise in the sectors of preparing, processing and canning of fruit, berries and vegetables, bakeries and bakery products was as in 2014 – 26 employees, the highest number was in the enterprises involved in the production of milk and dairy products and in the preparation and processing of fish and fish products (respectively, 226 and 80 employees).

50.1% of all enterprises operating in Lithuania in the manufacture of food products and beverages by number of employees are attributed to very small (less than 10 employees), 32.3% to small enterprises (10–49 employees) and 13.5% to the

medium-sized enterprises (50–249 employees) (Fig. 1.17). Enterprises with more than 250 employees in 2015 accounted for 4.1%, even though they employed almost 45.7% of all employees engaged in the sector for production of food products and beverages.

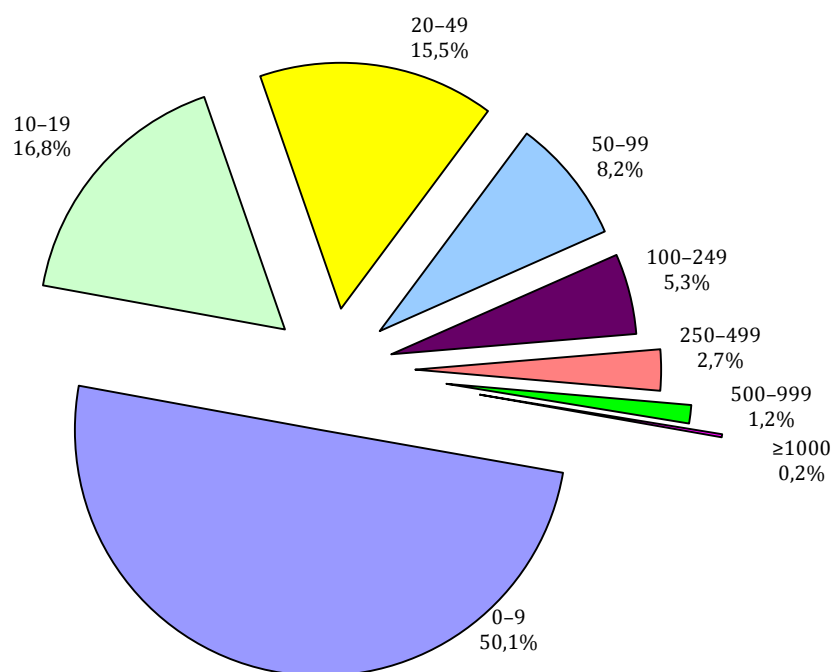
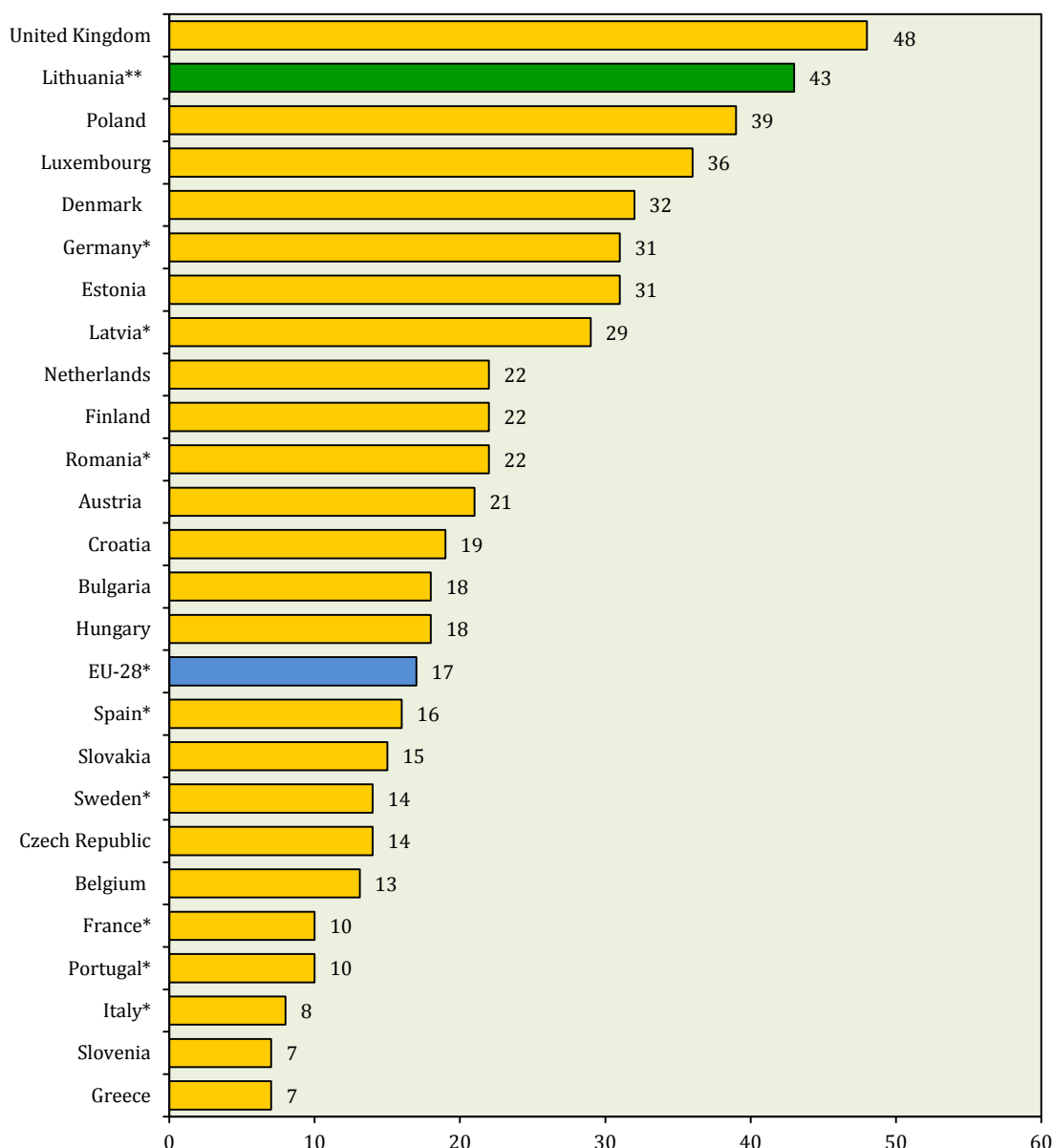


Fig. 1.17. Structure of enterprises of manufacture of food and beverages by number of employees in 2015 (at the end of the year)

Source: Statistics Lithuania.

The average number of employees per enterprise in Lithuania employed in the manufacture of food products and beverages and tobacco production stood at 43 employees in 2015. This indicator by several times exceeds many EU countries. The higher number of employees per enterprise, on the average, was only in the United Kingdom (Fig. 1.18). The average number of employees in Latvia and Estonia was by 1.5 times less than in Lithuania, even though this is considerably more than in many old EU Member States.



* 2013, ** 2015

Fig. 1.18. Average number of employees per enterprise of manufacture of food and beverages in some EU countries in 2014

Source: Eurostat.

The major share of the enterprises involved in manufacture of food products and beverages in the EU-28 countries consists of very small enterprises (0–9 enterprises). They were most numerous in Greece, Slovenia and France, respectively, 95.1, 89.9 and 89.2%. The biggest number of the large enterprises (≥ 250 employees) was in Lithuania (4.1%), Luxembourg (3.1%) and Estonia (2.4%). The large enterprises, on the average, in EU-28 accounted only for 0.9%. This is by 3.2 percentage points less than in Lithuania. Within the reference period in the sector of production of food products and beverages in Lithuania the share of very small enterprises increased by 9.9 percentage points and that of large enterprises by 0.3 percentage points.

II. PRODUCTION OF AGRICULTURAL AND FOOD PRODUCTS IN LITHUANIA AND SALES IN THE DOMESTIC AND FOREIGN MARKETS

1. Changes in trade of agricultural and food products in the domestic market

2015 was the first year with the euro as the official currency operating on the domestic market. Change of currency had no effect on the needs of the Lithuanian population in food products. Retailing of food products during 2015 increased by 3%, and within the period of 2011–2015 the scale of this trade went up by 18.5% (Table 2.1). In the five-year period the consumption of food products, beverages and tobacco per capita in terms of value increased by almost one-third.

Table 2.1. Retail sales of food products, alcoholic beverages and tobacco products in 2011–2015

Indicators	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Total sales, EUR mill.	3330,5	3481,3	3688,0	3833,3	3946,5	18,5
Per capita, EUR	1033,7	1162,8	1246,9	1307,1	1358,6	31,4

Source: Statistics Lithuania.

During the period of 2011–2015, average monthly net earnings increased by 19.7% (Table 2.2), and the price index of food products (in December 2015, as compared to December 2010) was by 12.6% higher. In 2015, as compared to 2011, prices of food products were more affordable for the population of the country (except eggs).

According to the Department of Statistics 2012 survey, food expenditure by the population of Lithuania makes the largest portion – 34% of the total household expenditures.

Household expenditures in 2015, as compared to 2014, increased by 4.9%. A boost in household consumption was mostly due to the increasing employment on the labour market and changes in the real wages; the decreased inflation had a positive effect either. With wages increasing and a level of prices being stable, the real purchasing power of the population got increased.

Table 2.2. Purchasing power of net earnings of employees in the whole economy in 2011–2015

Indicators	2011	2012	2013	2014	2015*	Change 2015, compared to 2011, %
Average monthly net earnings, EUR	461,8	478,3	501,1	526,5	553,0	19,7
Purchasing power of average net monthly earnings in IV Q						
beef ham with bone, kg	91	89	97	103	110	20,9
pork ham without bone, kg	124	122	134	141	153	23,4
milk, 2.5% fat content, l	684	718	665	675	758	10,8
butter, 82% fat content, kg	71	75	69	73	83	16,9
eggs, 10 pcs	459	339	430	450	457	-0,4
rye bread, kg	342	343	348	353	374	9,4
sugar, kg	424	435	487	609	700	65,1

* LIAE calculation.

Source: Statistics Lithuania.

The supply chain of agricultural and food products on the Lithuanian market is varied: from large trade networks to mobile farmers' market-places. The major part of food products is sold in supermarkets and outlets, their number in the domestic market amounting to more than 5.3 thousand.

About 3.5% of all food products are sold in market-places. Almost half of these products consist of meat and meat products (Table 2.3), the turnover of which within 2011–2015 got reduced by 9%. The trade volumes of vegetables and potatoes within the period in question went up by one-fourth. The sales of milk products and eggs dropped.

Table 2.3. The turnover of food products in local markets in 2011–2015, EUR million

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Food products	138,8	125,1	128,9	131,6	139,4	0,4
of which:						
meat and meat products	76,2	63,5	64,5	63,8	69,2	-9,2
vegetables and potatoes	31,3	32,4	32,5	35,9	38,9	24,3
fruit and berries	13,7	12,7	15,1	15,1	15,5	13,1
milk and milk products	4,2	3,6	3,5	3,2	3,6	-14,3
eggs	4,0	3,1	2,9	3,2	2,6	-35,0
other food products	9,4	9,6	10,4	10,4	9,6	3,2

Source: Statistics Lithuania.

New forms of trade in agricultural and food products: mobile farmers' market-places and Internet trading have expanded. Mobile farmers' market-places may offer to their customers the products grown and produced by farmers: milk, curds, cottage cheese, turkey-meat, pork, smoked sausage, skilandis (traditional smoked chopped meat), ham, etc. Some companies offering farmers' products on-line have several thousands of permanent purchasers.

Production and processing of agricultural produce (Table 2.4) satisfied the needs of the domestic market (except pig meat, vegetables and fruit) and enabled exports of a substantial part of cereals, bovine meat and poultry meat.

Table 2.4. Production and purchase of agricultural products in 2011–2015, thousand tonnes

Indicators	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Production						
Grain production	3304	4737	4564	5324	6521	97,4
Sugar beet for industry	878	1003	967	1014	620	-29,4
Livestock & poultry, slaughtered (l. w.)	299	315	327	340	330	10,4
Milk production	1786	1778	1723	1795	1765	-1,2
Egg production, mill. pcs	774	771	772	806	763	-1,4
Purchase						
Cereal	1661	3092	2954	3240	3428	106,4
Rapeseed	395	582	501	406	441	11,6
Livestock & poultry (l. w.)	234	244	262	269	277	18,4
Natural milk	1317	1360	1339	1436	1438	9,2
Eggs, mill. pcs	412	392	463	483	518	25,7

Source: Statistics Lithuania.

In 2015, the richest grain harvest was yielded in Lithuania that exceeded the domestic market needs by three times; the number of cattle bred has also increased thrice. The provision of milk and milk products by 1.7 times exceeded the national needs. The provision of other types of agricultural and food products is not significant, whereas that of vegetables and fruit is insufficient, the latter pertaining to pig meat as well.

In 2015, purchase prices for grain, animals and milk went on shrinking, since with an increase of their global production the consumption needs did not grow to that extent. Correspondingly, product prices on the domestic market also decreased. In essence, since 2012 the major portion of products has become cheaper on the domestic market, even though with some exclusion – prices for eggs, potatoes, and rye bread went up (Table 2.5).

Table 2.5. Retail prices of food products in December 2011–2015, EUR per kilogram

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Beef ham with bone	5,42	5,67	5,29	5,12	4,99	-7,1
Pork ham with bone	3,29	3,60	3,49	3,39	3,24	-1,5
Chicken, drawn	2,49	2,62	2,58	2,48	2,33	-6,4
Milk, 2.5 % fat content, EUR/l	0,72	0,75	0,77	0,78	0,71	-1,4
Butter, 82 % fat content	6,94	6,64	7,39	7,25	6,60	-4,9
Curd, 5–9 % fat content	3,65	3,59	3,99	3,90	3,45	-5,5
Eggs, 10 pcs	1,08	1,49	1,19	1,19	1,30	20,4
Best quality wheat flour	0,75	0,70	0,68	0,68	0,69	-8,0
Rye bread	1,44	1,46	1,47	1,50	1,46	1,4
Best quality wheat flour bread	1,65	1,58	1,65	1,63	1,58	-4,2
Potatoes	0,23	0,23	0,35	0,26	0,30	-30,4

Source: Statistics Lithuania.

Products by local processors are predominant on the domestic market, even though due to the increasing competition their portion is decreasing. In 2015, the share of Lithuanian milk products accounted for 83%, bread, pastry and milling products for 76%, bovine meat 84%, poultry meat 53%, and pig meat 35%

The Ministry of Agriculture in 2014 initiated the project “AuGink savo kraštą”, targeted to stimulate one to choose products grown in close vicinity. The project encourages growing safe and healthy products in the village, which are grown and manufactured in the clean and nice-looking environment using sustainable methods. All the municipalities of Lithuania joined this project. The municipalities, upon signing a memorandum, were obligated to promote the local regional products, to stimulate healthy eating habits, to seek for long-term cooperation with the local cultivators, to involve all educational and training establishments of their regions and cities and to encourage their participation in implementing the programmes “Milk for Children” and “Promoting of Fruit Consumption at Schools”. The municipalities may stimulate agriculturists to increase production.

2. Foreign trade in agricultural and food products

The volumes of Lithuania’s foreign trade in agricultural and food products that have augmented at the beginning of the reference period in the recent years went on declining (Fig. 2.1). Comparing to the year 2011, the export value in 2013 increased by 1.4 times, that of the import by 1.3 times, and the foreign trade turnover by 1.4 times. In 2014, however, the rapid growth in foreign trade was displaced by a slump. A decline in the export value by 1.1% and import by 0.4% was determined by the reduced prices for

food products, the effects of African swine fever, and an import embargo imposed by Russia on certain agricultural and food products (dairy products, meat and meat products, fish and fish products, vegetables and fruit) that stimulated the search for new trade partners in the existing markets and the need to penetrate into the new alternative markets. Since negative economic effects and geopolitical tensions that started in 2014 have not subsided, tendencies of reducing foreign trade volumes further persisted. According to the preliminary data of the Department of Statistics, Lithuania in 2015 exported agricultural and food products for EUR 4.5 billion and imported for EUR 3.6 billion. If compared to 2014, export dropped by 3.8% and import by 3.7%. Export of products of Lithuanian origin reached EUR 3.0 billion, accounted for 68% (in 2014, 65%) of the total exports of agricultural and food products and was lower by EUR 4 million. The value of exports of products of non-Lithuanian origin has dropped by 11%. The balance of trade, like during the corresponding period a year ago, was positive and its value reached EUR 899 million. Foreign trade turnover was EUR 8.0 billion.

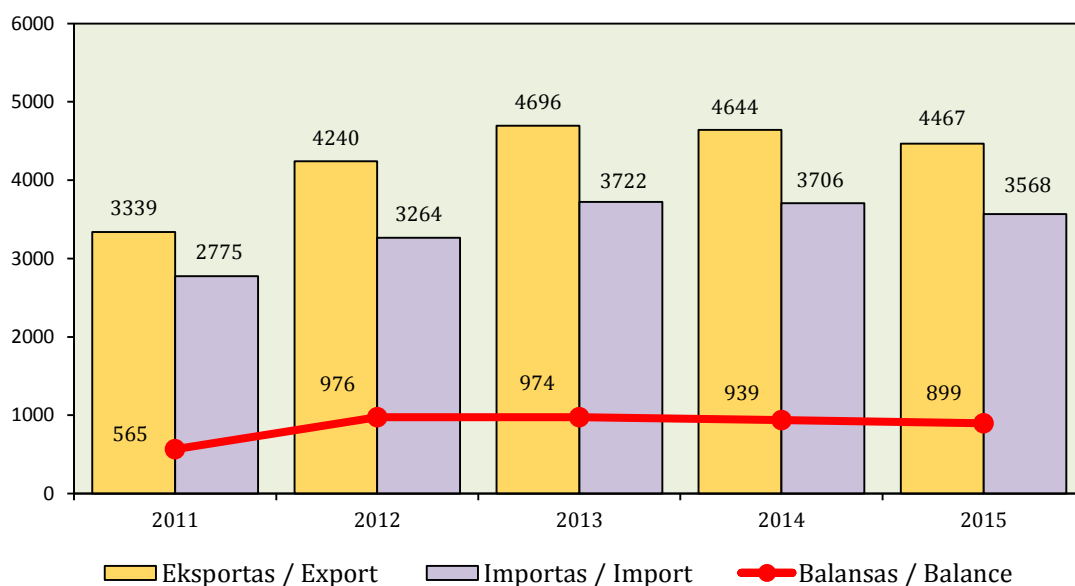


Fig. 2.1. Export, import and foreign trade balance of agricultural and food products in 2011–2015, EUR million

Source: Statistics Lithuania.

Trade in agricultural and food products makes a substantial part in the foreign trade structure of Lithuania. In 2011, the share of exports accounted for 16.6% and of imports for 12.2%; in 2012, increased correspondingly by 1.8 and 0.9 percentage points. The tendencies of growth have been preserved in 2013–2014. In 2015, the share of export in agricultural and food products increased to 19.4%, and the portion of import reduced by 0.3 percentage points and accounted for 14.0% of the total import of Lithuanian goods.

The portion of export to the EU countries in 2011–2013 dropped from 59 to 52%, and from 2014 started augmenting and in 2015 reached 63%. Comparing to 2014, export to the EU countries increased by 13% to EUR 2811 million. This growth was due

to exports of products of Lithuanian origin, the value thereof has increased from EUR 1985 million to EUR 2251 million, and its portion in the total export to the EU countries constituted 80%. It is notable that the EU market relative weight in the export structure of agricultural and food products of Lithuanian origin by country group dropped from 72% in 2011 to 65% in 2014, and in 2015 went up significantly and reached 74% (Table 2.6).

Table 2.6. Exports of agricultural and food products by country group and origin of products in 2011–2015

Country group	2011		2012		2013		2014		2015*	
	EUR mill.	%	EUR mill.	%	EUR mill.	%	EUR mill.	%	EUR mill.	%
Lithuanian origin										
Total	2242	100	2814	100	3019	100	3038	100	3034	100
EU-28	1615	72,1	1907	67,8	2001	66,3	1985	65,3	2251	74,2
Third countries	626	27,9	907	32,2	1018	33,7	1053	34,7	783	25,8
Non-Lithuanian origin										
Total	1097	100	1426	100	1676	100	1607	100	1433	100
EU-28	339	30,9	372	26,1	418	24,9	510	31,8	560	39,1
Third countries	758	69,1	1054	73,9	1259	75,1	1097	68,2	873	60,9

* Provisional data.

Source: Statistics Lithuania.

Exports of products of non-Lithuanian origin to the EU market have also increased. Their share against the total exports of products of non-Lithuanian origin increased from 31% in 2011 to 39% in 2015, and the value from EUR 339 million to EUR 560 million. These positive tendencies show that the EU market not only remains the main one, but also is becoming still more important for Lithuanian exporters of agricultural and food products. The main partners of export to the EU market remain Latvia, Germany, Poland, the Netherlands, Estonia, and Italy (Table 2.7). Exports to Germany, Latvia and Estonia in 2015, if compared to 2011, increased correspondingly by 14%, 19% and 34%, whereas their portion from the total exports to the EU countries got reduced from 18% to 14%, from 22% to 18%, from 8.1% to 6.6%. Such changes are related to the significantly faster growth of export to the Netherlands, Poland, and Italy. Exports to the said countries went up correspondingly by 2.2, 1.7 and 1.5 times. It is important to note that not only geographically close EU markets or those with a high purchasing power are attractive to Lithuanian exporters. Comparing to 2011, export in 2015 mostly increased to Slovenia (by 24 times), Cyprus (4.4 times), Hungary (3.8 times), Malta (3.2 times), and Spain (2.7 times).

Table 2.7. Main export markets for agricultural and food products by country group in 2011, 2013 and 2015

Country	2011		2013		2015*	
	EUR mill.	%	EUR mill.	%	EUR mill.	%
EU-28	1955	100	2419	100	2811	100
of which:						
Latvia	436	22,3	509	21,1	520	18,5
Germany	343	17,5	319	13,2	392	14,0
Poland	230	11,8	291	12,0	384	13,7
Netherlands	111	5,7	200	8,3	245	8,7
Estonia	157	8,1	212	8,8	212	7,5
Italy	127	6,5	150	6,2	187	6,6
Third countries	1385	100	2277	100	1656	100
of which:						
Russia	988	71,3	1374	60,3	487	29,4
Belarus	80	5,8	180	7,9	376	22,7
Saudi Arabia	53	3,9	128	5,6	200	12,1
Norway	42	3,0	58	2,6	50	3,0
USA	11	0,8	19	0,8	46	2,8
Turkey	48	3,5	40	1,8	43	2,6

* Provisional data.

Source: Statistics Lithuania.

Export to third countries from 2011 to 2013 went on increasing, and since 2014 a tendency for reduction has been observed and in 2015 reached EUR 1656 million, i.e. by 27% less than in 2013. Within 2011–2015, export of products of Lithuanian origin, on the average, accounted for 46 % of the total export to third countries. Its value has boosted from EUR 626 million in 2011 to EUR 1053 million in 2014, even though in 2015 it shrank to EUR 783 million. The share of export of products of non-Lithuanian origin by country group that belongs to third countries increased from 69% in 2011 to 75% in 2013, in 2014 dropped to 68% and in 2015 fell to 61%, the lowest level during the entire reference period. Decrease of export to third countries resulted from the decline in exports to Russia from EUR 1374 million in 2013 to EUR 487 million in 2015. The reasons for these changes were an embargo on import of certain food products imposed by Russia in 2014 and the economic recession in Russia. Russia's share against the total export to third countries dropped to 29%, whereas in 2011 it made 71%, and in 2013 accounted for 60%. Despite of that fall, it still retains the first position among the partners of export to third countries. Comparing to 2011, export to other two key markets – Belarus and Saudi Arabia – augmented considerably in 2015, correspondingly, by 4.7 and 3.7 times. In the last years the Lithuanian exporters have been exporting still more products to the USA market. The export value to that country increased from EUR 11 million in 2011 to EUR 46 million in 2015, the share from the total exports to third countries went up from 0.8% to 2.8%. All these changes in the export structure are consequences of the export reorientation process that have started after sanctions

imposed by Russia in 2014. Even though this process is complicated, time-consuming and requiring specific knowledge, owing to the efforts of the Government of Lithuania and entrepreneurs, new permits were obtained in 2015 and conditions were created for export of various Lithuanian products to 13 countries.

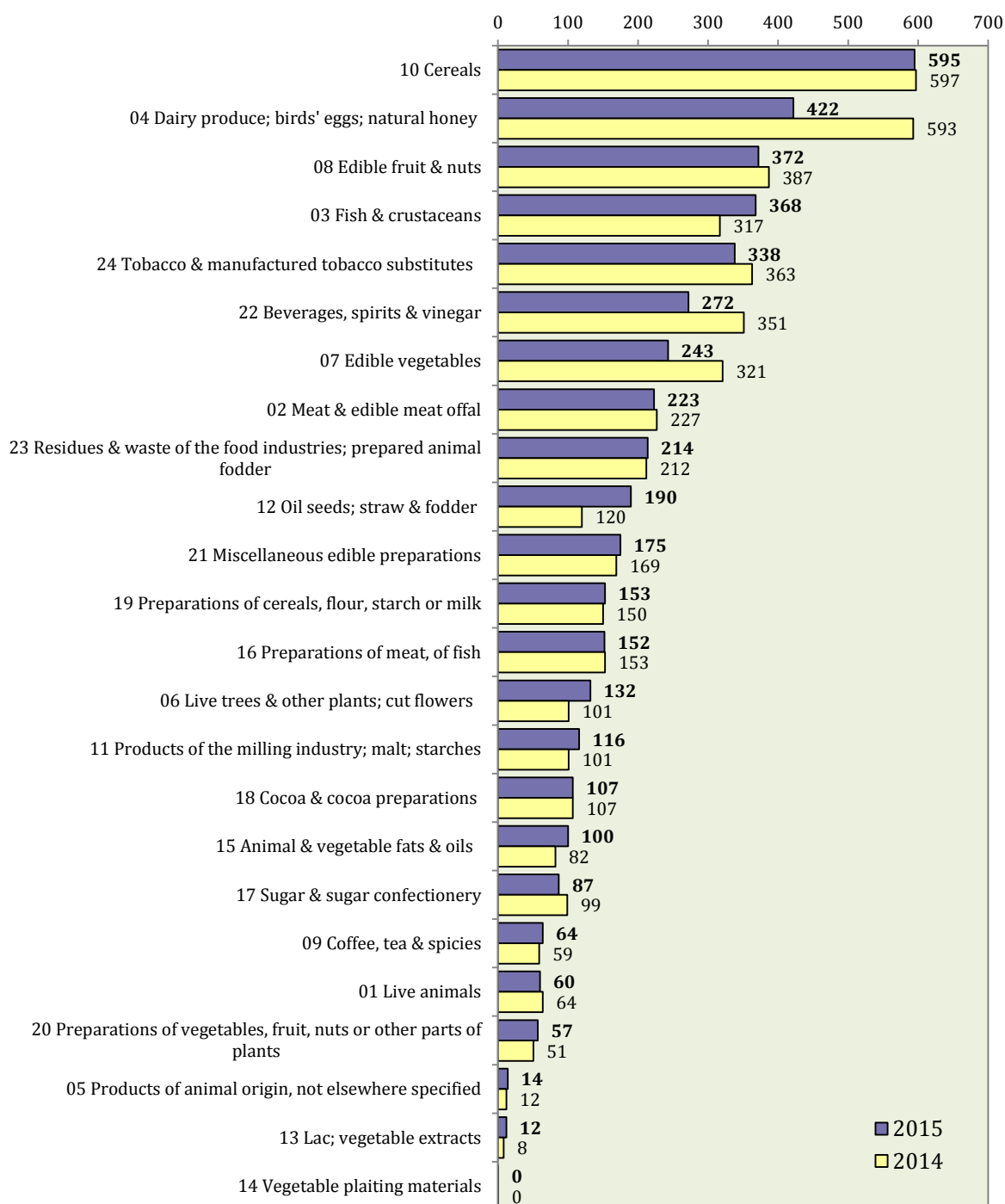


Fig. 2.2. Exports of agricultural and food products in 2014 and 2015, EUR million

Source: Statistics Lithuania.

In 2015, as compared to 2014, most of all increased export of oil seeds, straw and fodder (by 1.6 times), fish and crustaceans (16%), live plants and cut flowers (1.3 times), fats and oils (1.2 times), milling products, malt, starch, inulin and wheat gluten (almost by 1.2 times), vegetables, fruit, nuts or products of other plant parts (by 1.1 times), various foodstuffs under CN Section 21 (3.3%), coffee, tea and spices (9.2%), shellac, plant extracts (1.4 times) (Fig. 2.2).

Most considerably decreased export of milk and milk products (by 1.5 times), non-alcoholic and alcoholic beverages and vinegar (1.3 times), vegetables (1.3 times), tobacco products (6.8%), fruit and nuts (3.9%), sugar and sugar confectionery products (13%), live animals (6.4%), meat and meat offal (1.5%), and cereals (0.3%).

74% of the value of products of Lithuanian origin consisted of cereals (19.3%), milk and milk products (12.6%), tobacco products (11.0%), fish and crustaceans (10.1%), meat and meat offal (5.9%), oil seeds, straw and fodder (5.5%), residues and waste from the food industries and prepared animal fodder (5.4%), meat and fish products (4.2%).

During the reference period, exports of the majority of products of Lithuanian origin have increased. Most considerable increase of export was noted of oil seeds, straw and fodder 1.7 times, vegetables 2.2 times, fish and crustaceans 1.2 times, milling products, malt, starch by 18%, fats and oils 1.6 times, products from cereals, flour and starch by 9.4%, cocoa and cocoa products by 6.7%.

The largest share of exports in 2015 consisted of cereals – for EUR 595 million. In comparison with 2014, their export value has not almost changed and accounted for 13.3% of the total value of agricultural and food products. 98 % of the shipped cereals have been cultivated in Lithuania. In total, export of various cereals of Lithuanian origin amounted to 3143 thou. t, by 2.7% more than in 2014. Export of triticale increased by 2.0 times to 206 thou. t, buckwheat by 1.8 times to 21 thou. t, rye by 1.5 times to 27 thou. t, barley by 1.3 times to 403 thou. t, and oat by 10% to 47 thou. t. Export of wheat dropped by 5.1% to 2393 thou. t, maize by 13% to 44 thou. t. The key export partners were Saudi Arabia (32% of the total exports of cereals), Spain (12%), Latvia (8.9%), the Islamic Republic of Iran (6.6%), and Turkey (6.5%).

Milk and milk products were second ranked by export value of Lithuanian products (CN 0401–0406), their exports amounted to EUR 391 million (8.8% of the total export of agricultural and food products). The reduced global prices for milk and milk products and an import embargo on these products imposed by Russia predetermined the reduction in the value of exports of the products under study by 1.5 times. During the reference period, export of milk and milk products of Lithuanian origin dropped by 1.4 times, its value reached EUR 381 million and accounted for 12.6% of exports of products of Lithuanian origin.

47% of the value of exports of milk and milk products of Lithuanian origin consisted of cheeses and curd. Exports of these products amounted to EUR 181 million, by 1.4 times less than in 2014, and covered 58 countries. 69% of cheeses and curd were exported to Italy (42% of exports of these products), the USA (13%), Latvia (8.6%), and the United Kingdom (5.8 %).

Not concentrated milk and sweet cream export value dropped by 1.2 times and constituted EUR 113 million (30% of export of milk products). These products were shipped to 23 countries, mostly to Poland (55%), Germany (32%), and Latvia (7.1%).

10% of the export value of milk products consisted of concentrated milk and sweet cream. Export of these products was by 2.3 times less than in 2014 (for EUR 38 million). Number of export countries: 51. Key markets: Spain (12%), the Netherlands (9.6%), Germany (8.8%), and Japan (7.5%).

The amount of exported butter and other milk fats has decreased by 1.4 times, to EUR 21 million. These products were marketable in 29 countries, and most of all in Saudi Arabia (export share 39%), Uzbekistan (23%), and Latvia (16%).

The main export countries of milk and milk products of Lithuanian origin in 2015 were Italy (19.5% of the total export of milk products), Poland (18.7%), Germany (13.1%), Latvia (8.8%), the USA (6.2%), and the Netherlands (4.3%). The process of reorientation of export of milk and milk products gained momentum in 2015. As compared to the year 2013 when there were no Russia's sanctions, exports to Saudi Arabia, Sweden, Austria, and South Korea increased most considerably.

Ranked third in terms of export value were fruit and nuts, their exports amounting to EUR 372 million (8.3% of the total exports of agricultural and food products), or by 3.9% less than in 2014. Fruit of Lithuanian origin, however, accounted just for 4.4%, of which the largest portion of exports consisted of frozen bilberries, gathered in Lithuania (4.0 thou. t for EUR 10 million). Exports of fruit of non-Lithuanian origin largely consisted of apples (EUR 86 million), peach (EUR 44 million), pears (EUR 42 million), citrus fruit (EUR 40 million), strawberries (EUR 18 million), frozen bilberries (EUR 15 million), kiwi and grapes (EUR 12 million each), and bananas (EUR 11 million). 62% of the total exported fruit and nuts were shipped to Belarus, 10% to Russia, 7.4 to Latvia. 21% of fruit and nuts of Lithuanian origin were exported to Germany, 16% to Poland, and 11% each to Belgium and Sweden.

Fourth place by export value (8.2 % of the total value of exported agricultural and food products) belongs to fish and crustaceans, their export amounting to EUR 368 million. During the reference period, the value increased by 16 %. Products of Lithuanian origin accounted for 83% of the total export of fish and crustaceans. The largest portion of exports included dried, salted, smoked or otherwise processed fish, for EUR 208 million. Fish fillets and other fish meat were shipped for EUR 120 million, frozen fish for EUR 19 million. The main export partners were Germany (39%), Belgium (13%), and Italy (12%). Products of Lithuanian origin comprised 83% of the total export of fish and crustaceans.

Export of tobacco products amounted to EUR 338 million, their share in the total export making 7.6%. Almost all these exported products were manufactured in Lithuania. 85% of export consisted of cigarettes, 10% smoking tobacco, and the remaining part included cigars and tobacco refuse. The key export markets were the Netherlands (23%), Poland (14%), Latvia (8.7%), Finland (8.5%), Sweden (8.0 %), Germany (7.6%), and Algeria (7.3%).

In 2015, 6.1% of the export value belonged to beverages, spirits and vinegar. Their export value has dropped by 23%, to EUR 272 million. The value of the exported alcoholic beverages reached EUR 219 million. The main export partners were Russia (71%) and Latvia (12%). The larger portion of non-alcoholic beverages was shipped to Latvia (46%), Estonia (32%), and Russia (4.7%). Beverages of Lithuanian origin accounted just for 32% of the export value.

Export of vegetables in 2015 amounted to EUR 243 million, its value comprising 5.4% of the total exports. Within the reference period, the export value dropped by 1.3

times. The share of vegetables of Lithuanian origin accounted for 42% and, compared to 2014, increased by 27 percentage points. This growth was due to the increase of exports in dried peas and beans, correspondingly, by 5.5 times and 9.3 times. 86% of exports of vegetables of Lithuanian origin consisted of dried peas (45%), dried beans (18%), champignons (15%), and chanterelles (7.8%). Of vegetables of non-Lithuanian origin, the major part of exports consisted of tomatoes (28% of exports of non-Lithuanian origin), paprika (15%), chanterelles (13%), cauliflowers and broccoli (9%), lettuce (6.6%), aubergines (5%), champignons (4.8%), and cucumbers (2.2%). The major share of exported vegetables belonged to Belarus – 37% of the total exports of vegetables. 12% of vegetables was shipped to India, 7.3 to Latvia, and 6.6 to Russia. Vegetables of Lithuanian origin were largely exported to India (28%), Norway (11%), Latvia and Egypt (10% each), Sweden (7.3%), Germany (6.5%), and the Netherlands (5.6%).

As compared to 2014, exports of meat and edible meat offal in 2015 decreased by EUR 3.4 million to EUR 223 million and accounted for 5.0% of the total exports of agricultural and food products. 80% of the exported meat was of Lithuanian origin.

In 2015, bovine meat, manufactured in Lithuania, made the largest portion of exports, amounting to 29 thou. t, its value amounting to EUR 85 million (its volume increased by 15%, value by 8.6%). Bovine meat was exported to 39 countries, mostly to the Netherlands and Italy (21% each of the total export of bovine meat of Lithuanian origin), Poland (9.4%), Sweden (9.1%), and Estonia (6.5 %). Almost 67% of bovine meat was shipped to the above-referred countries.

The shipped poultry and poultry offal amounted to EUR 74 million, by 14% less than in 2014. The volume of export reduced by 8.7% and reached 36 thou. t. Poultry meat was exported to 35 countries. 79% of the poultry meat was exported to the Netherlands (36% of exports of these products), Estonia (13%), Latvia (12%), France (11%), and United Kingdom (6.3%).

Export of pig meat of Lithuanian origin was by 6.8% higher than in 2014 and amounted to EUR 11 million. Its shipment made 5.2 thou. t and was higher by 1.3 times. Pig meat was exported to 21 countries, mostly to Latvia (58% of pig meat exports), Poland (19%), and Sweden (6.9%).

The major portion of products exported to the EU countries in 2015 consisted of fish and crustaceans (13% of the total export to the EU countries), milk and milk products (10%), tobacco products (10%), cereals (7.4%), meat and meat offal (6.7%), oil seeds, straw and fodder (6.3%), prepared animal fodder and residues and waste from the food industries (6.1%), and meat and fish products (5.0%). The products in question constituted 65% of the total export of agricultural and food products to the EU countries.

The largest share of export to third countries consisted of cereals (23% of the total export to third countries), fruit and nuts (17%), non-alcoholic and alcoholic beverages and vinegar (11%), vegetables (9.7%), live plants and cut flowers (7.6%), and milk and milk products (5.8%). The value of these products accounted for almost 74% of the total value of products exported to third countries.

In 2015, Lithuania imported goods from 159 countries, agricultural and food products were imported from 110 countries for EUR 3568 million, by EUR 138 million less (3.7%) than in 2014. Agricultural and food products comprised 14% of the total import of Lithuania. Of the 24 CN chapters, imports of 10 products increased. The highest increase of import consisted of live plants and cut flowers by 26%, tinned

vegetables and fruit by 11%, fruit and nuts by 10.9%, coffee, tea and spices by 7.7%, and fish and crustaceans by 7.0%. Import of milk and milk products dropped by 34%, cereals by 31%, vegetables by 27%, and of various beverages by 14%.

Over the period of 2011–2015, import of fruit and nuts in terms of value was in the lead. Their value in 2015 accounted for 16% of the total value of imported agricultural and food products. Plenty of fish and crustaceans, various beverages, vegetables, meat, miscellaneous food products under CN Chapter 21 (extracts, food additives, and spreads), tobacco and tobacco substitutes, residues and waste of the food industries and fodder, and milk and milk products were imported. The value of the above-mentioned products accounted for 70% of the total imports of agricultural and food products (Fig. 2.3).

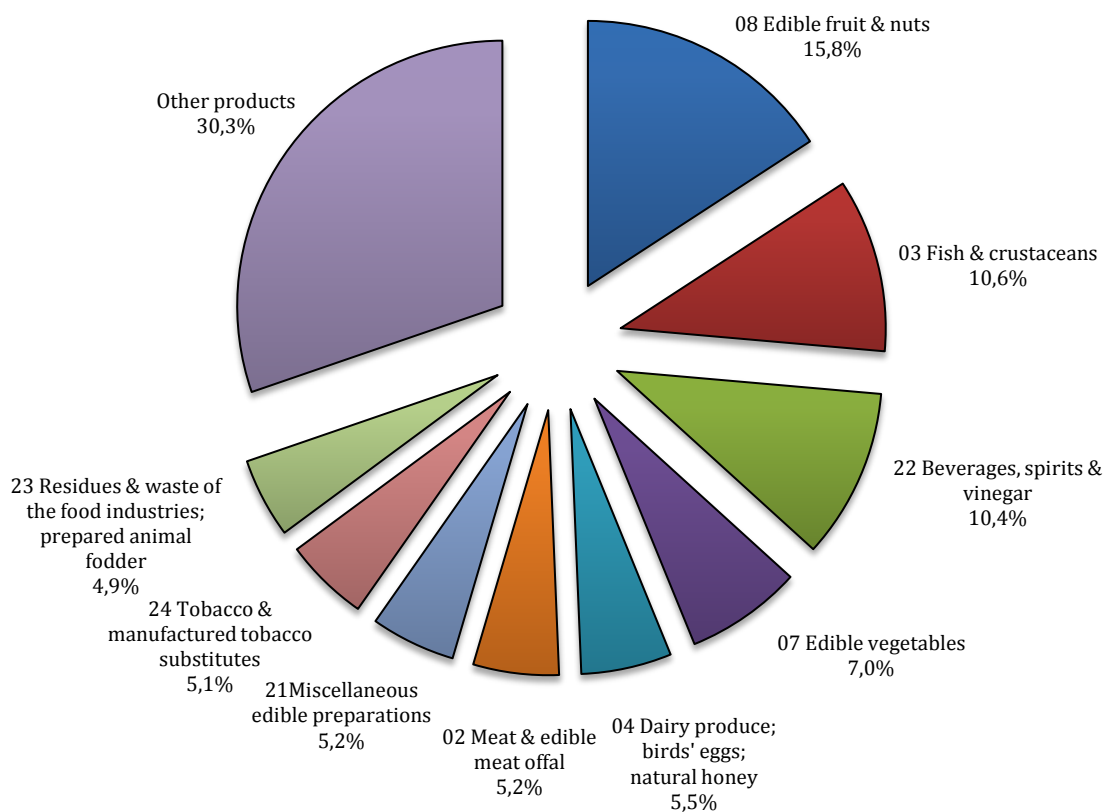


Fig. 2.3. Structure of import of agricultural and food products in 2015

Source: Statistics Lithuania.

Every year edible fruit and nuts are imported most of all. Their import value during 2011-2015 has been increasing permanently: in 2015, as compared to 2011, by 36%, and as compared to 2014, by 11%, and amounted to 16% of the total imports of agricultural and food products. 72% of the total value of import of fruit and nuts consisted of apples and pears (29%), apricots, cherries, peaches and plums (17%), citrus fruit (13%), fresh strawberries, kiwi, raspberries, cranberries and bilberries (13%).

23% of fruit and nuts were shipped from the Netherlands, 16% each from Poland and Spain, 7.3% from Belgium, and 5.6 from Italy. Import from the afore-mentioned states comprised 68% of the value of the imported fruit and nuts. 92% of the products under this chapter were re-exported.

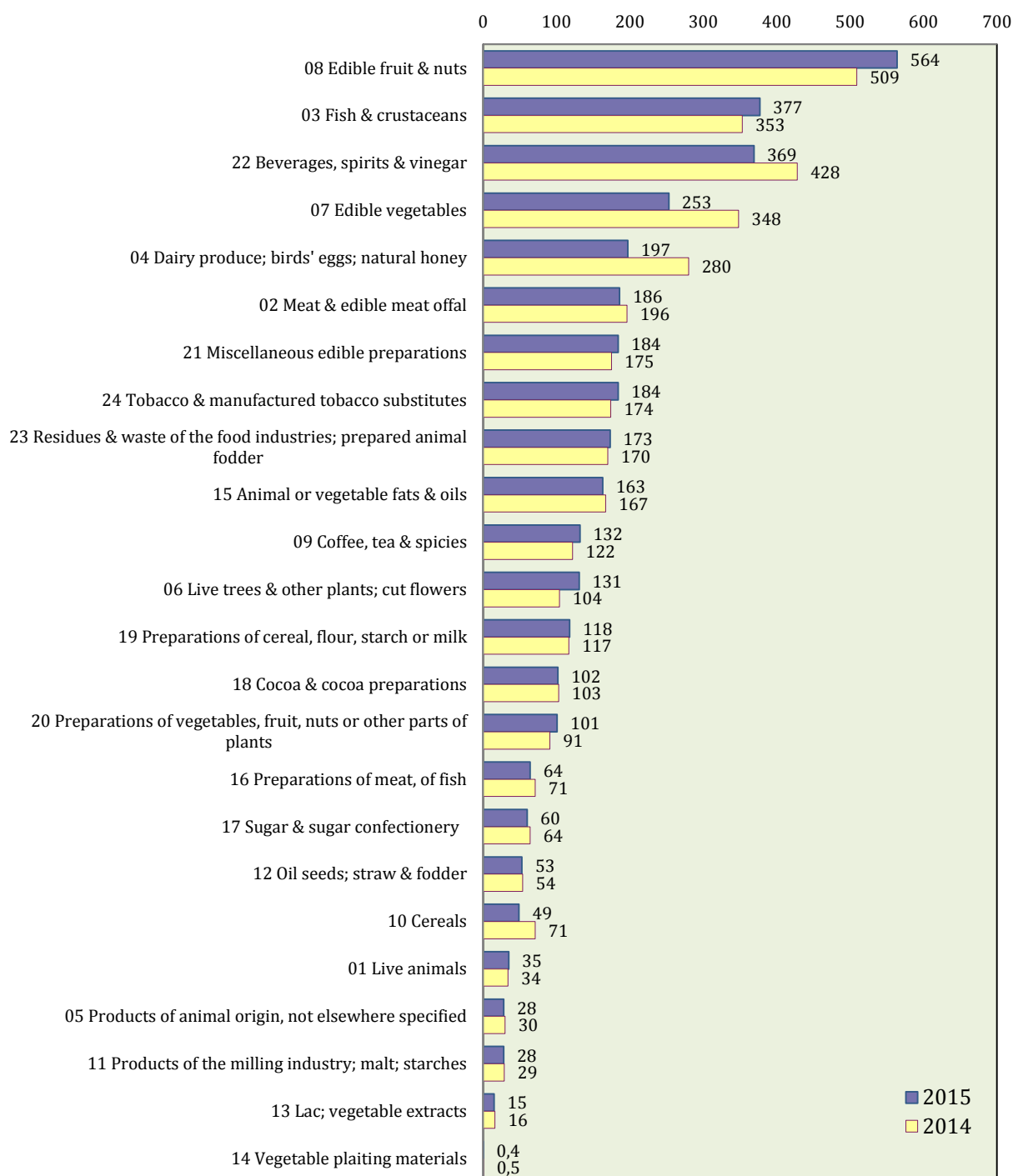


Fig. 2.4. Import of agricultural and food products in 2014 and 2015, EUR million

Source: Statistics Lithuania.

In 2015, as to the volume of imports, fish and crustaceans ranked second, and their import value went on increasing since 2011. In 2015, imports of fish and crustaceans, as compared to 2011, in terms of value increased by 1.6 times and comparing to 2014 by 6.9%. Import amounted to 41 thou. t of fresh and chilled fish, 33 thou. t of fish fillets and other fish meat, and 46 thou. t of frozen fish. Fish import prices during the reference period changed slightly: the average import price for fresh and chilled fish increased from 4218.6 EUR/t to 4374.3 EUR/t, fish fillet and other fish meat from 2504.8 EUR/t to 2796.3 EUR/t. Price for frozen fish increased from 1621.0 to 1891.0 EUR/t. 47% of fish and crustaceans were imported from Sweden, 12 % from Norway, 5.9% from the USA, 5.0% from Germany, and 4.7% from Latvia. Import from these countries accounted for 75% of the total value of imported fish and crustaceans.

Various beverages were ranked third by import volume. Even though in 2015 import in this group was by 27% higher than in 2011, from 2014, however, it started decreasing and in 2015 was lower than in 2014 by 14%. 45% of import value in this group consisted of wine, 24% of strong spirits, 11% of mineral and carbonated waters with sugar or sweetening matter and other flavours, and 6.3% of beer. Wine was imported from 41 countries of the world; however, import from France, Italy and Spain accounted for 81% of the total value of imported wine. Strong spirits were imported from 42 countries, mostly from France, Germany, Latvia, the United Kingdom, Spain, Russia, and Estonia (almost 70%), mineral and carbonated waters with various flavours from Poland, Latvia, Austria, Hungary and Estonia (more than 74%), beer – from Germany, Belarus, the Netherlands, Finland, and Latvia (61%).

Import of vegetables, comparing the past five years, in 2015 was lowest. In 2011, it constituted EUR 276 million, in 2013 it was highest reaching EUR 452 million, and in 2015 made EUR 253 million, by 27% less than in 2014. Import of champignons, paprika, chanterelles, and aubergines comprised 37% (re-exported 97 thou. t, 97% of imported products in this group), tomatoes 27% (81 thou. t, 85%, respectively), various lettuces 8.8% (20 thou. t, 87%, respectively), various cabbages 8.5% (46 thou. t, 85%, respectively), and cucumbers 4.7% (7.7 thou. t, 49%, respectively). The major part of vegetables was imported from the Netherlands (39%), Spain (18%), Poland (17%), and Russia (8.1%). If estimated by weight, 82% of the products under this chapter were re-exported.

The share of imports of agricultural and food products from the EU countries in 2011–2015 fluctuated between 84–85 %, while in 2015 it was lowest making 83%. Imports from third countries accounted for 15–16%, and in 2015 constituted 17%. In 2011–2014 import from the Eurasian Economic Union (EEU) countries reached 29–35% of the total import from third countries and in 2015 made 28%. The share of the old EU Member States (EU-15) in 2011–2013 increased from 50.3% to 55.3% of the total value of imported agricultural and food products, whereas from 2014 started reducing, in 2014 made 53.3% and in 2015 already just 49.9%, and comparing to 2014, it reduced by 3.5 percentage point. 60% of the total agricultural and food products imported from the EU consisted of imports from EU-15 (for EUR 1780 million).

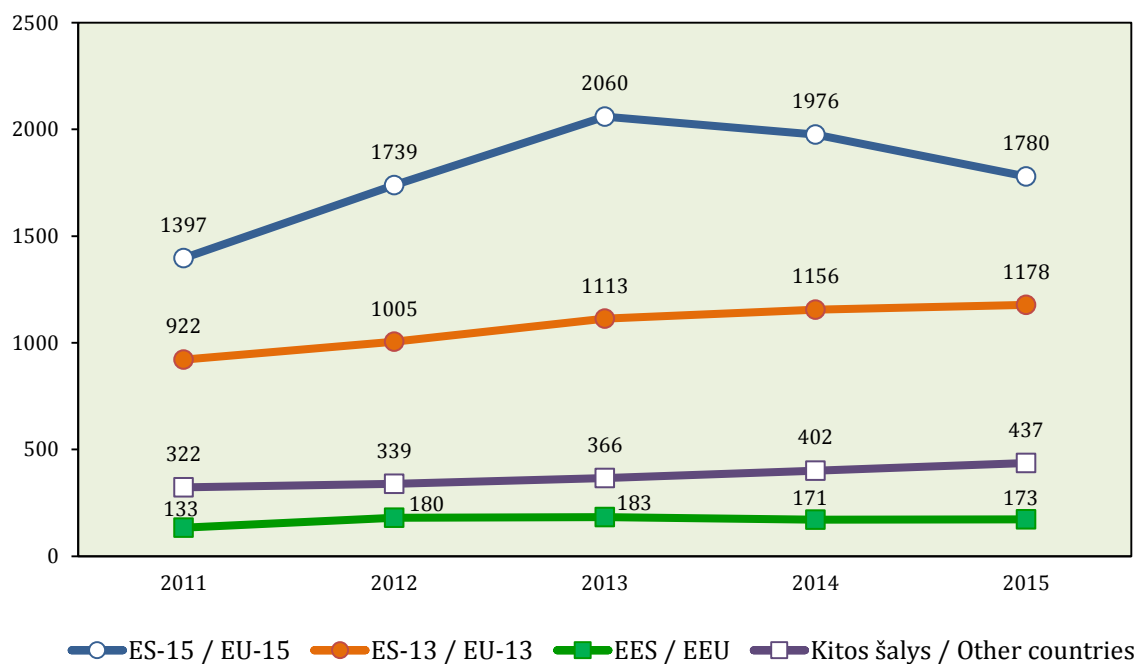


Fig. 2.5. Dynamics of import of agricultural and food products by country group in 2011–2015, EUR million

Source: Statistics Lithuania.

In 2015, imports of agricultural and food products dropped just due to the decrease of import from the EU-15 countries (10%), the value of import from the remaining country groups got increased. Imports from new EU countries (EU-13) constantly increased. Compared to 2011, it increased by 28%, comparing to 2014 by 1.8% (EUR 21 million). Import from the EEU countries (Russia, Belarus, Kazakhstan, Armenia and Kirghizia) in 2011–2015 was at a similar level, its value in 2015 was by EUR 1.9 million higher than in 2014 and by 30% higher than in 2011. The value of import from the EEU countries accounted for 28% of the value of imported agricultural and food products from third countries.

Import from the remaining countries (without the EU and EEU countries) amounted to EUR 437 million, 12% of the total import of agricultural and food products.

The surplus of foreign trade in agricultural and food products in 2015 made EUR 899 million. Export of products under CN thirteen chapters exceeded import (Fig. 2.6). The highest positive balances stood for trade in products under CN Chapter 04 (milk and milk products, eggs, and honey), tobacco and tobacco products, oil seeds and fodder, and milling products. The highest negative balances were for trade in fruit and nuts, various beverages, coffee, tea and spices, fats and oils.

The balance of trade with the EU countries in 2011–2015 was negative, in 2011 made EUR 364 million, in 2015, if compared to 2014, has shrunk from EUR 639 million to 147 million. Within the period in question, surplus in trade with third countries was observed, in 2011 it, made EUR 929 million, in 2015, as compared to 2014, it has fallen from EUR 1577 million to 1046 million.

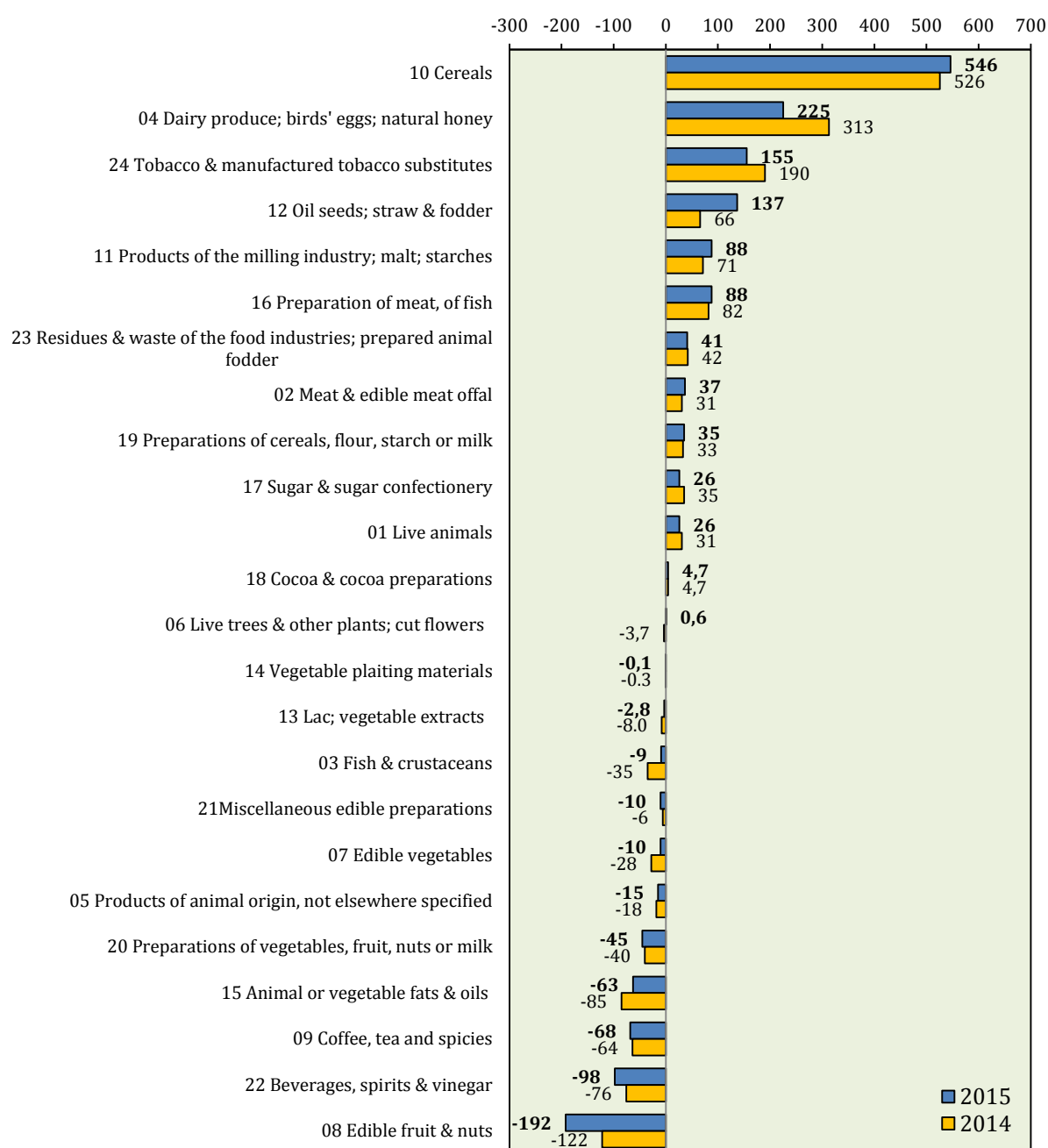


Fig. 2.6. Balances of agricultural and food products in 2014 and 2015, EUR million

Source: Statistics Lithuania.

The highest surplus in 2015 was in trading with Russia, amounting to EUR 389 million, Belarus EUR 312 million, Saudi Arabia EUR 200 million, Latvia EUR 185 million, Germany EUR 115 million; the highest deficit in trading with the Netherlands (EUR 235 million), Poland (EUR 184 million), and Spain (EUR 129 million).

3. Changes in production of agricultural and food products

3.1. Cereals

The favourable support system to farms involved in cultivation of crops predetermined an increase in the number of these farms, growth of areas under crops, and the increased investments of farms in the land. Even though the net income gained by Lithuanian grain cultivators per family employee in 2014, as compared to 2010, decreased by more than 50%, it, however, was even by 1.7 times higher than the average in all farms. These factors made cultivation of crops attractive to Lithuanian farmers. Farmers cultivating crops are competitive: according to the Eurostat data, Lithuania by wheat export ranks fourth among the EU countries.

Cultivation. The area under grain crops in Lithuania in 2015, as compared to 2011, increased by 34% (Fig. 2.7). Areas under winter wheat increased most of all: within the last year by 60% and during the reference period 2.1 times. Over the period of 2011–2015, most of all increased the areas under wheat (51%), buckwheat (34%) and triticale (27%), whereas the areas under rape (35%) and barley (20%) decreased. In 2015, in the structure of crops, the areas under winter cereals comprised 53% and, comparing to 2011, by 16 percentage points more.

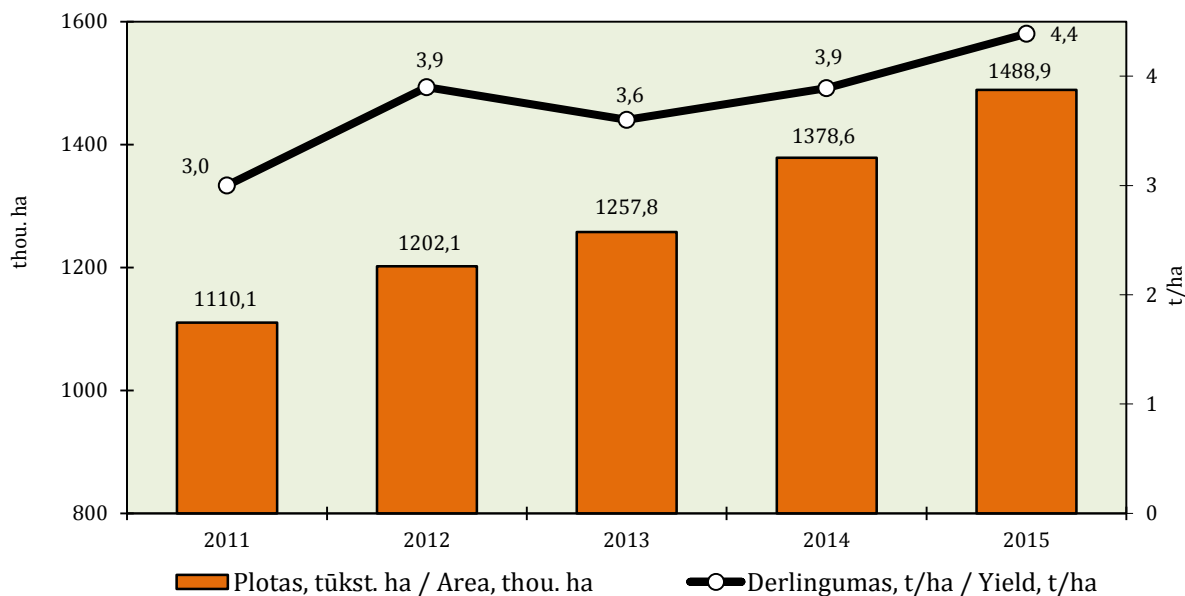


Fig. 2.7. Crop area and yield of grain crops in 2011–2015

Source: Statistics Lithuania.

The yielding capacity of grain crops has been increasing each year, even though it still has not reached the EU-28 average. The favourable climatic conditions and investments contribute to the increase of the yielding capacity, even though the potential has not been used fully, i.e. the yielding capacity of crops as well as productivity of crops (production of crops per hectare of crops) has not reached the EU-28 average. The yielding capacity of crops in Lithuania in 2014 was lower than the EU-28 average: barley by 21%, wheat by 12%, and rape by 8%. Over the period of 2011–2015, the highest yielding capacity was reached in 2015. In the past year, as compared to 2011, the yielding capacity increased by 47%. The yield of wheat and triticale has been distinguished (Table 2.8).

Table 2.8. Yield of grain crops in 2011–2015, tonnes per hectare

Kind of grain crops	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Grain crops	2,98	3,94	3,62	3,89	4,39	47,3
cereals	3,03	4,02	3,68	3,98	4,56	50,5
winter cereals	3,03	4,73	4,09	4,35	5,33	75,9
wheat	3,32	5,17	4,56	4,81	5,71	72,0
triticale	2,54	3,82	3,18	3,36	4,08	60,6
rye	2,02	2,81	1,96	2,26	2,79	38,1
barley	2,95	4,42	3,60	4,11	4,40	49,2
spring cereals	3,03	3,27	3,22	3,75	3,69	21,8
wheat	3,47	3,89	3,71	4,31	4,21	21,3
barley	3,01	3,38	3,27	3,80	4,00	32,9
triticale	2,40	2,91	2,88	3,12	3,08	28,3
oat	2,04	2,31	2,24	2,42	2,55	25,0
buckwheat	0,96	0,90	0,93	0,95	1,00	4,2
grain maize	7,48	6,10	7,37	6,06	4,81	-35,7
other cereals	1,81	2,56	1,60	1,37	0,97	-46,4
dried pulses grain	1,72	1,89	1,91	2,20	2,29	33,1
Rapeseed	1,94	2,43	2,13	2,33	3,13	61,3

Source: Statistics Lithuania.

In 2015, the harvest of grain crops amounted to 6521.4 thou. t, or by 97% more than in 2011 (Table 2.9). The harvest of winter crops was higher even by 80% than in 2014, and spring crops by 24% lower. Wheat comprised the major portion in the structure of harvested crops 72%, of which 54% winter crops.

Table 2.9. Harvest of grain crops in 2011–2015, thousand tonnes

Kind of grain crops	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Grain crops	3304	4737	4564	5324	6521	97,4
cereals	3226	4657	4475	5123	6067	88,1
winter cereals	1192	2810	2632	2120	3773	3,2*
wheat	912	2257	2125	1708	3272	3,6*
triticale	187	370	387	292	379	2,0*
rye	85	155	94	84	107	25,4
barley	8	28	25	37	15	91,3
spring cereals	2034	1847	1843	3003	2294	12,8
wheat	957	742	747	1523	1109	15,8
barley	752	714	660	982	796	5,9
triticale	50	65	66	103	89	78,8
oat	128	164	165	184	163	27,7
buckwheat	26	31	28	36	37	40,4
mixed cereals	47	50	55	58	42	-10,4
grain maize	72	79	121	115	56	-21,7
other cereals	1	2	1	1	0	-80,0
Rapeseed	484	633	550	502	512	-5,8

* Times.

Source: Statistics Lithuania.

The harvest of grain crops in Lithuania in 2015, as compared to 2014, was higher by 22.5%. The harvested yield was due to the 8% larger harvested area and by 12.9% higher yielding capacity. At the end of the reference period the record harvest of wheat and buckwheat was yielded.

Purchase of grain in Lithuania. In 2015, purchase of grain from Lithuanian cultivators was by 5.8% higher than in 2014 (Table 2.10). In 2015, as compared to 2014, purchase of Class II wheat and class I rye has been increasing most substantially. Amounts of purchased malt barley, maize and buckwheat decreased.

Table 2.10. Purchase of grains in 2011–2015, thousand tonnes

Kind of grain	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Grain, total	1661	3092	2954	3240	3428	2,1*
wheat	1195	2356	2209	2323	2484	2,1*
food wheat, class I	497	686	970	838	686	38,0
food wheat, class II	195	852	794	865	1158	5,9*
feed wheat	503	818	433	620	375	-25,4
rye	25	79	46	29	39	56,0
food rye, class I	12	35	21	16	22	83,3
barley	320	337	357	573	439	37,2
food barley	40	51	57	115	86	2,2*
malt barley	56	72	74	345	109	94,6
feed barley	224	214	226	112	243	8,5
oats	15	20	27	32	29	93,3
buckwheat	9	15	13	11	6	-33,3
triticale	73	249	248	177	217	3,0*
maize	11	26	47	44	16	45,5
Rapeseed	395	582	501	406	441	11,6

* Times.

Sources: Statistics Lithuania; AIRBC data.

The record global harvest of grain makes an impact on the grain purchase prices. The purchase prices for grain in Lithuania in 2015 were by 4.7% higher than in 2014, though have not reached the level of prices in 2011–2013. Highest rise in prices in 2015 was for buckwheat – by 58%, oats by 21%, and rape by 16%. In 2014 and 2015, the average purchase prices for grain (rye, malt barley, triticale and maize) were lowest within the entire reference period (Table 2.11).

Table 2.11. Average purchase price of grains in 2011–2015, EUR per tonne

Kind of grain	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Grain, total	190	205	176	150	157	-17,4
wheat	194	208	179	154	160	-17,5
rye	175	176	136	117	114	-34,9
barley	179	200	178	140	144	-19,6
malt barley	208	226	213	172	167	-19,7
triticale	161	188	146	126	124	-23,0
oats	159	161	118	100	121	-23,9
buckwheat	349	297	267	263	415	18,9
maize	181	205	167	146	144	-20,4
Rapeseed	422	456	349	293	341	-19,2

Source: Statistics Lithuania.

Processing. The national grain processing companies in 2015 manufactured the bigger amount of flour (45%), groats (42%), white bread (11%) and loaf bread (5%), bakery confectionery (4%), whereas they baked the lower amount of fresh bread (2%) and rye bread (16%) (Table 2.12).

Table 2.12. Production of grain products in 2011–2015, thousand tonnes

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Flour	334,1	327,9	365,1	400,4	484,8	45,1
Cereal groats	14,2	18,5	20,4	23,6	20,1	41,6
Fresh bread	126,1	121,3	121,1	126,5	123,8	-1,8
ruginė duona / rye bread	59,0	55,8	54,2	51,2	49,5	-16,0
other bread	67,1	65,5	66,9	75,3	74,3	10,7
Pastry and confectionery	23,4	22,4	23,3	24,8	24,2	3,5

Source: Statistics Lithuania.

In 2015, compared to 2014, the average wholesale prices went on increasing: buckwheat by 46%, wheat groats 29%, and confectionery products 4%. Insignificantly lower were prices for fresh bread (2%), wheat flour (6%), rye flour (7%), semolina (6%), rye bread (5%) and other bread (1%) (Table 2.13).

Table 2.13. Average wholesale prices of grain products in 2011–2015, EUR per tonne

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Wheat flour	343	319	326	315	297	-13,4
Rye flour	294	280	261	244	226	-23,1
Wheat groats	371	323	311	276	357	-3,8
Semolina	382	393	408	432	408	6,8
Buckwheat groats	1210	791	628	629	918	-24,1
Fresh bread	885	915	931	882	863	-2,5
rye bread	872	904	956	914	871	-0,1
other bread	896	925	912	862	856	-4,5
Confectionery	2364	2567	2923	2687	2790	18,0

Source: Statistics Lithuania.

During the period of 2011–2015, fluctuations in the retail prices for grain products under analysis were insignificant, except for buckwheat. The price for the latter, as compared to 2011, was by 33% lower, but by 15% higher than in 2014 (Table 2.14).

Table 2.14. Average retail prices of grain products in 2011–2015, EUR per kilogram

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Wheat flour, best quality	0,75	0,72	0,72	0,70	0,69	-8,0
Rye bread	1,42	1,45	1,45	1,48	1,48	4,2
White bread made from wheat flour	1,58	1,58	1,61	1,62	1,60	1,3
Buckwheat groats	2,62	1,84	1,70	1,53	1,76	-32,8
Pasta*	0,70	0,70	0,71	0,69	0,70	0,0

*500 g.

Source: Statistics Lithuania.

Balance. Over the period of 2011–2015, the yielding capacity of grain and the area under crops went on increasing; therefore, the available stocks increased considerably (by 2.6 times), grain resources by 98%, and provision with grain increased to 318%. Grain consumption for feed, the human consumption fund, and needs in the industry changed insignificantly (Table 2.15).

Table 2.15. Balances of grain and grain products in 2011–2015, thousand tonnes

Indicators	2011	2012	2013	2014	2015*	Change 2015, compared to 2011, %
Beginning stocks	866,1	1255,1	2035,6	2040,5	2249,6	2,6**
Production	3303,9	4736,5	4566,8	5324,1	6521,4	97,4
Import**	408,9	477,0	425,4	530,0	282,9	-30,8
Total resources	4578,9	6468,6	7027,8	7894,6	9053,9	97,7
Export**	1475,0	2438,3	2930,5	3600,0	3638,7	2,5**
Domestic uses	1848,8	1994,7	2056,8	2188,0	2049,0	10,8
seeds	229,2	240,4	250,4	260,0	303,5	32,4
animal fodder	1036,1	1141,6	1197,3	1300,0	1118,6	8,0
losses	51,5	54,0	52,2	65,0	69,0	34,0
industrial uses	179,2	203,9	206,0	210,0	204,4	14,1
human consumption	352,8	347,1	350,9	353,0	353,5	0,2
Per capita consumption, kg	117	116	119	120	121	3,4
Ending stocks	1255,1	2035,6	2040,5	2106,6	3366,2	168,2
Self-sufficiency level, %	179	237	222	243	318	139****

* LIAE calculations.

** Times.

*** In grain equivalent.

**** Percentage points.

Source: Agriculture in Lithuania 2014. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658.

23% of the total resources have been used for domestic needs in 2015. Since all available resources increased more rapidly than consumption for domestic needs, in 2015, as compared to 2011, the portion of consumption for domestic needs decreased by 18 percentage points. Export during 2011–2015 went up by 2.5 times.

Foreign trade in grain and grain products. In 2015, as compared to 2014, export of cereal grains increased by 2.3% (Table 2.16). 56% of the yielded harvest was exported. In 2015, as compared to 2014, export to the EU countries increased by about 39%, whereas the major part in the export structure (66.4%) belonged to other countries. In 2015, even 49% of export of cereal grains from other countries went to Saudi Arabia, Iran and Turkey, 10% each. The average export price to the EU countries stood at 2.8% higher (196.6 EUR/t) than in 2014. Price of cereal grain exported to other countries decreased by 5.1% (184.1 EUR/t).

In 2015, compared to 2014, exports of rye increased most substantially (54.5%), rape (50.1%) and wheat (35.1%), whereas exports of cereal groats went on decreasing (11.8%).

Table 2.16. Exports of cereal grains and grain products in 2011–2015, thousand tonnes

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Cereal grains	1094,9	2051,8	2498,5	3088,2	3159,9	2,9*
of which:						
wheat	807,7	1680,3	1931,5	2511,6	2393,5	3,0*
rye	26,6	81,3	30,0	17,8	27,5	3,4
barley	204,3	101,6	278,4	320,5	403,0	97,3
Rapeseed	219,1	420,0	369,5	279,0	418,9	91,2
Milling products	185,1	190,2	213,1	206,3	249,5	34,8
of which:						
wheat flour	9,8	11,1	16,8	14,2	13,6	38,8
rye flour	1,7	4,2	1,2	1,1	1,2	-29,4
cereal groats	2,8	2,7	3,8	5,1	4,5	60,7

* Times.

Source: Statistics Lithuania.

In 2015, the largest portion of exports of cereal grains (76%) consisted of wheat. The major portion of cereal grains (30%) was exported to Saudi Arabia. Most of barley (78%) was also shipped to the said country, rape seed to the Netherlands (33%).

The major share of the milling products (81 %) was exported to the EU countries. The main market of exports in 2015 was Poland, with 29% of the total products of the milling industry exported to the EU being shipped to this country.

Imports of cereal grains in 2015 decreased by 42% and amounted to 203.8 thou. t (Table 2.17). This is by 15.5 times less than exports. In 2015, import of maize comprised the major part (87.5 thou. t), even though, if compared to 2014, its import reduced by

42.6%. Import of maize from the Ukraine comprised the major part (91%); its average import price reached 142.6 EUR/t. Import of buckwheat in 2015 accounted for 7.9% of the total import of cereals. Import price for buckwheat, as compared to 2014, due to the poor harvest in Russia increased 1.7 times and reached 386.2 EUR/t. Import of buckwheat from Russia in 2015, comparing to 2014, comprised 62.2% of the total import of buckwheat. Import of the milling products in 2015, as compared to 2014, has decreased by 3.1%. Import of rye flour fell most of all (69%).

Table 2.17. Imports of cereal grains and grain products in 2011–2015, thousand tonnes

Products	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Cereal grains	275,4	359,4	291,4	352,9	203,8	-26,0
of which:						
wheat	64,1	160,4	49,1	119,9	66,9	4,4
rye	41,3	64,5	11,2	13,9	8,1	5,1*
barley	68,1	34,5	55,9	37,3	8,6	7,9*
Milling products	64,8	53,7	58,8	64,0	62,0	-4,3
of which:						
wheat flour	28,4	21,9	23,6	31,5	32,3	13,7
rye flour	4,9	10,3	13,1	12,4	3,8	-22,4
cereal groats	9,8	3,4	3,4	3,2	2,7	3,6*

* Times.

Source: Statistics Lithuania.

The grain reserves both in the world and in Lithuania go on increasing; this meaning that under favourable climatic conditions purchase prices will not reach the level of the prices of 2011–2013. Therefore, the Lithuanian crop cultivators, seeking to retain the permanent farm income, should learn how to manage a risk of this business with the assistance of internal and external measures. According to the FADN (Farm Accountancy Data Network) data, farms of cereals are highly specialised: portion of production of cereals and rape seeds accounts for about 86% of the total production manufactured in these farms. Farms of cereals could diversify their activities more considerably, i.e. could use the available resources of the farm not only in the direct manufacture of agricultural products, but also in the provision of agricultural services, development of tourism services, etc. According to the FADN data, in 2014, portion of income from other activities in the farms specialising in growing cereals and rape seeds made only 2.5% of the income raised from farming activities, while in other plant-growing farms this indicator reached 7.5%

One of the measures for management of external risk of farm income is the insurance of areas under crop, aimed to reduce a risk increased due to the climatic change. According to the data of the company "Vereinigte Hagelversicherung VVaG" (engaged in insurance of areas under crop in Lithuania), in 2014, 211,1 thou. ha were covered by insurance – about 15% of the area under cereals.

3.2. Milk

A drop in global prices for milk products that has started at the beginning of 2014 still persisted in the year 2015. This has also had an effect on the prices of milk products, sold by Lithuanian milk processing enterprises, which in December 2015, as compared to December 2013, have decreased, on the average, by 19.8%. Revenues of the four major Lithuanian groups of milk processing companies decreased by 19%, whereas the net yield dropped only by 0.8 percentage points. Such results have been achieved upon reducing the average annual purchase price for raw milk within two years by 40 %.

In 2015, price per tonne of liquid raw milk amounted just to EUR 214. The lower purchase price for milk, with Lithuania as a member of the EU, was paid only during the world crisis in 2009 and in the period of adaptation in the common market in 2004–2006. With such prices existing, milk production in 2015, as compared to 2014, went on declining, whereas purchase has not almost changed. Low prices noticeably accelerated a decrease in the number of small and medium-size farms and milking cows thereof. In 2015, the larger farms started to withdraw from production: In 2011–2014 farms with 1.8 cows and in 2015 with 2.4 cows, on the average, would withdraw from milk production. Only large dairy farms were in a better position as the milk processors paid them the milk purchase price that was by 20% higher than the average price.

Milk production and procurement. In 2015, the milk yield amounted to 1738.5 thou. t, of which 83% was purchased for processing (Table 2.18). In comparison with 2014, milk production in 2015 decreased by 3.2%, and compared to 2011 by almost 3.0%. Liquid milk purchase during 2015 increased by 0.2% and during five years by 9%.

Table 2.18. Milk production and purchase in 2011–2015, thousand tonnes

Indicators	2011	2012	2013	2014	2015	2015, compared to 2011, %
Milk production	1786,4	1778,1	1722,3	1795,1	1738,5	97
Milk purchase						
natural fatness	1317,1	1359,9	1339,4	1435,5	1438,0*	109
basic fatness**	1587,6	1638,0	1611,3	1730,6	1738,6	110

* 4.16 % milk fat, 3.28 % protein.

** 3.4 % milk fat, 3.0 % protein.

Sources: *Agriculture in Lithuania 2014*. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658.

Agricultural and Food Market Information System. Milk Sector, Domestic market. – AIRBC, [2016-04-24].

<<http://www.vic.lt/?mid=348&id=21191>>.

80% of milk in 2014 was produced in farmers' farms and family farms, though the relative weight of agricultural companies and enterprises has been increasing gradually. In 2011, the agricultural companies and enterprises produced 16% of milk and in 2014 – 20%.

Raw milk purchased in Lithuania is lacking for the processing enterprises; therefore, some portion thereof is imported from other countries. Import of raw milk in 2015 reached 334.6 thou. t and if compared to 2014 dropped by 21%, even though prior to 2014 it has increased constantly. Compared to 2011, the amount of raw milk exported in 2015 was by 14% higher. Raw milk is imported from Latvia (72% of milk imported in 2015) and Estonia (28%). The average price of imported raw milk per tonne in 2015 was EUR 233.6.

During 2015, exports of raw milk amounted to 93.7 thou. t – by 61% less than in 2014. A decline in exports was due to the increased marketable milk production in Poland, into which the major portion of raw milk is exported (97 %), and the decreased global demand in milk products, reducing the raw milk demand in milk products exporting countries. Alongside Poland, raw milk was exported to Germany (1.8%), Latvia (0.9%) and Afghanistan (0.2 t). The average price of the exported raw milk was 250 EUR/t. Comparing to the year 2011, the amount of raw milk exported in 2015 was by 33% higher. The foreign trade balance of raw milk remained negative: in 2011 import was by 224.0 thou. t higher than export, and in 2015 by 240.9 thou. t.

The average fatness of the purchased milk in 2011 was 4.14%, and protein content was 3.27%, in 2015, correspondingly, 4.16% and 3.28%. In 2011, 95.7% and in 2015, 96.6% of the total purchased milk complied with the EU veterinary and hygiene requirements.

The milk purchase price within the reference period fluctuated. In 2013, the average purchase price for milk of basic indicators jumped up to 263 EUR/t and reached the record price of all times. In 2014–2015, it went on decreasing and in 2015 just reached 178 EUR/t (Fig. 2.8). Comparing to 2011, the purchase price for milk of basic indicators in 2015 has decreased by 25%. The average price for liquid milk in 2015 was 215 EUR/t.

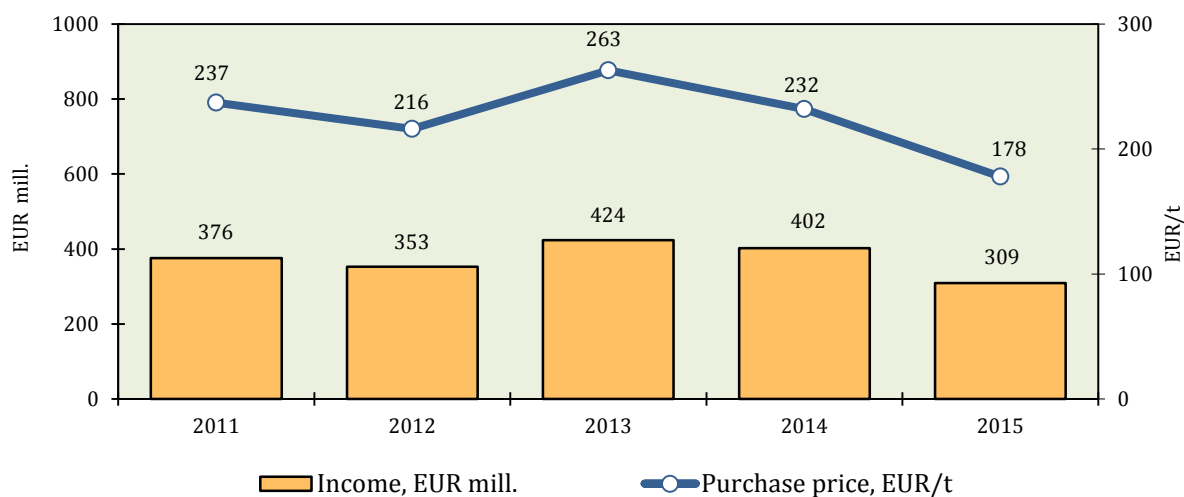


Fig. 2.8. Purchase price and income from sales of milk of basic indicators in 2011–2015

Sources: *Agriculture in Lithuania 2014*. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658. *Agricultural and Food Market Information System. Milk Sector, Domestic market.* – AIRBC, [2015-04-24]. <<http://www.vic.lt/?mid=348&id=21191>>.

Tendencies of variation in milk purchase prices were similar to those in other EU countries, whereas the range of their fluctuations in Lithuania was more abrupt and more profound. In 2011, the annual average milk purchase price in Lithuania was higher only than in Romania. In 2013, in addition to Romania, Latvia was left behind. In 2014-2015, the milk purchase price in Lithuania was again lowest in the EU (Fig. 2.9).

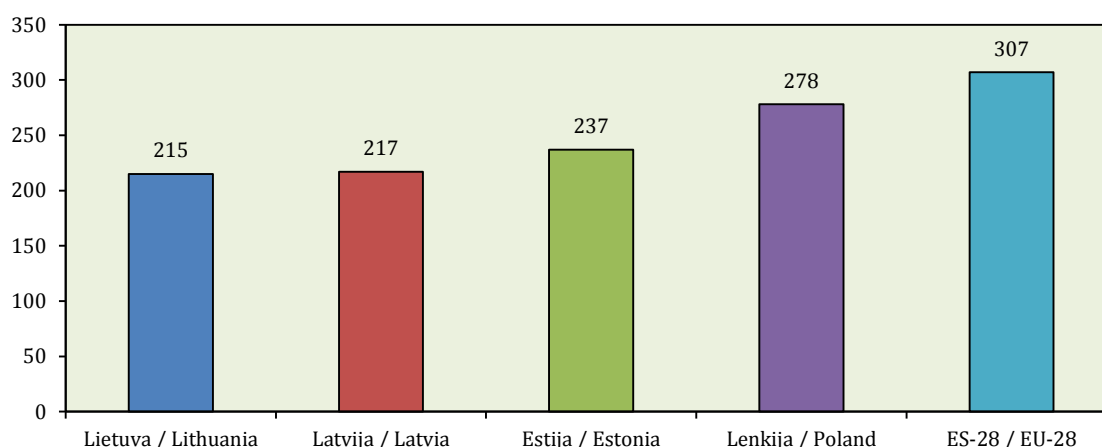


Fig. 2.9. Milk (natural fatness) purchase price in Lithuania and some other EU countries in 2015, EUR per tonne

Sources: Agricultural and Food Market Information System. Milk Sector, Domestic market. – AIRBC, [2015-04-24].

<<http://www.vic.lt/?mid=348&id=21191>>;

EU milk prices – DG Agri. DairyCo [2016-04-04]. <<http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dg-agri/#.U1n3jbfNsdU>>.

The average Lithuanian dairy farm is among the smallest in the EU countries. In 2014, the number of cows per farm was 5.2. Smaller average dairy farms were only in Romania (2.2 cows) and in Bulgaria (5.1 cows). Milk production farms, however, are becoming larger in Lithuania. In 2015, as compared to 2011, the average dairy farm increased by 33% to 5.6 cows.

The process of enlargement of an average dairy farm takes place alongside with the decline of small and medium-sized farms. According to the data of the AIRBC (Agricultural Information and Rural Business Centre), the number of farmers keeping 1–2 cows is decreasing most rapidly: their number in 2015, as compared to 2011, dropped by 37%. The number of farms keeping less than 49 cows is also decreasing, though more slowly. From 2011 to the end of 2015, the number of cow keepers decreased by 23978, or by 31%. Meanwhile, farms with 50 and more cows increased by 93, or by 14%, and the number of cows kept here by 16% (Table 2.19).

**Table 2.19. Dairy farms by number of cows in 2011 and 2015
(at the end of the year)**

Number of cows per farm	2011		2015	
	number of farms	number of cows, thou.	number of farms	number of cows, thou.
1–2	56667	70,7	35558	45,5
3–9	15592	72,1	13183	61,5
10–19	2873	38,6	2443	33,2
20–29	1024	24,5	1017	24,2
30–49	787	29,8	764	29,0
50–99	433	29,1	509	34,9
>=100	239	63,6	256	72,3
Total	77615	328,4	53730	300,6
Average, heads		4,2		5,6

Šaltiniai: AIRBC, [2016-04-06]:

<http://www.vic.lt/uploads/file/06_ukiu120101_pagal_gyvas_karvs11.pdf>;

<http://www.vic.lt/uploads/file/07_ukiu120101_pagal_gyvus_karvs21.pdf>;

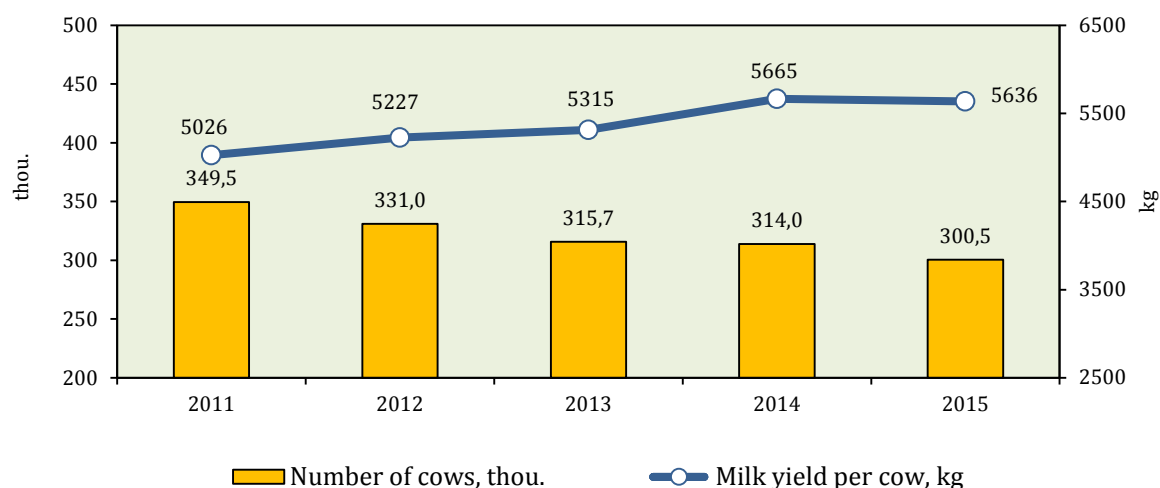
<http://www.vic.lt/uploads/file/08_ukiu120101_pgl_gy_kar22.pdf>;

<[http://www.vic.lt/uploads/file/06_ukiu160101_pagal_gyvas_karvs11\(1\).pdf](http://www.vic.lt/uploads/file/06_ukiu160101_pagal_gyvas_karvs11(1).pdf)>;

<[http://www.vic.lt/uploads/file/07_ukiu160101_pagal_gyvus_karvs21\(1\).pdf](http://www.vic.lt/uploads/file/07_ukiu160101_pagal_gyvus_karvs21(1).pdf)>;

<[http://www.vic.lt/uploads/file/08_ukiu160101_pgl_gy_kar22\(1\).pdf](http://www.vic.lt/uploads/file/08_ukiu160101_pgl_gy_kar22(1).pdf)>.

According to the data of the Lithuanian Department of Statistics, from 2011 to the end of 2015 the number of dairy cows decreased by 49 thousand (Fig. 2.10). Their number was consistently decreasing throughout the whole reference period. In 2015, as compared to 2014, the number of cows reduced by 4.3%. The highest annual decrease rate in the number of cows within the reference period was in the year 2012 (5.3%).


**Fig. 2.10. Number of dairy cows and milk yield per cow in 2011–2015
(at the end of the year)**

Source: Agriculture in Lithuania 2014. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658; Statistics Lithuania.

The average productivity per cow in Lithuania in 2015 was 5636 kg. The productivity of cows within the period of 2011–2014 has been increasing: in 2014, as compared to 2011, the milk yield per cow increased by 12.7%. In 2015, however, as compared to 2014, it got decreased by 0.5%. The average milk yield of cows under control during the control period of 2014–2015 reached 7109 kg – by 2.0% more than in 2013–2014 and by 11.2% more than in 2010–2011. During the control period of 2014–2015, 47.6% of all dairy cows were under control in the country.

Manufacturing of dairy products. The dominant position in the milk processing sector of Lithuania belongs to the five groups of milk processing companies: Rokiškio sūris AB, Pieno žvaigždės AB, Žemaitijos pienas AB, Vilkyškių pieninė AB, and Marijampolės pieno konservai UAB. The first four groups during the reference period of 2011–2014 generated about 70-80% of the total income from sales in the milk processing sector. The said groups of companies are also the main exporters of dairy products. Other milk processing companies are smaller. Some of them, however, are also exporting the large part of their products.

All Lithuanian milk processing companies and their subsidiaries have implemented the EU sanitary and hygiene requirements for food production and are entitled to export their products to the EU Member States. 16 milk processing companies and their subsidiaries had permits for exporting their products to Russia, and 9 to Belarus.

The global economies reviving after the global crisis within the period of 2010–2014 created conditions for increasing dairy product sales (Table 2.20). However, in 2015, as compared to 2014, the decreased global demand in dairy products and Russia's embargo imposed on imports of dairy products from the EU reduced the sales by 21% and comparing with 2011 by 11%. Export within the afore-mentioned five-year period dropped by 13%.

Table 2.20. Key indicators of the milk processing industry in Lithuania in 2011–2015

Indicators	2011	2012	2013	2014	2015
Number of milk processing enterprises & subsidiaries	31	31	32	33	34
Sales of dairy products and dairy products with vegetable oils, EUR mill.	851,8	868,2	939,7	959,8	754,3
share in total output of the food industry, %	33	30	31	31	25
Export income of milk processing companies, EUR mill.	449,8	458,2	541,0	558,5	379,3
share in total income from sales of dairy products and dairy products with vegetable oils, %	53	53	58	58	50

Sources: *Production of commodities 2011–2015*. Vilnius: Statistics Lithuania. ISSN 1648-5777; *Industrial production - Statistics Lithuania*. [2016-04-28]. <<http://osp.stat.gov.lt/statistiniu-rodikliu-analize1>>; *State Food and Veterinary Service* [2016-02-12]. <<http://vetlt1.vet.lt/vepras/>>.

The key area in the specialisation of the milk processing industry in Lithuania is the production of cheeses. These products also prevail in the export structure. Production of the larger part of dairy products within the period of 2011–2014 has increased, and in 2015, as compared to 2014, decreased by 5–16%, except for soured milk and kefir (Table 2.21). In 2015, as compared to 2011, most significantly increased the production of butter (60%) and not-processed cheeses (58%). The most considerable decline was noted in the production of tinned milk – 36%.

Table 2.21. Production of main dairy products in 2011–2015, thousand tonnes

Products	2011	2012	2013	2014	2015	2015 compared to 2011, %
Drinking milk	102,6	100,3	100,7	110,2	93,0	91
Sour milk, kefir	33,9	35,3	37,1	37,8	37,8	112
Yoghurt	14,6	16,6	19,7	19,5	18,2	125
Sour cream & mixes	28,3	29,1	27,9	27,1	25,8	91
Curd	26,5	28,2	27,4	24,1	20,4	77
Butter and other milk fats	8,7	10,6	11,5	16,3	13,9	160
Fresh cheese	24,8	40,1	35,3	42,1	39,1	158
Unprocessed cheese	46,8	49,3	51,4	37,8	32,9	70
Dried milk and whey products	39,2	39,0	41,2	49,3	47,7	122
Ice cream, mill. l	18,1	23,8	29,3	30,8	28,2	156
Canned dairy products	21,5	22,8	13,3	16,2	13,8	64

Sources: Production of commodities 2011–2015. Vilnius: Statistics Lithuania. ISSN 1648-5777.

Domestic market in dairy products. Consumption of milk and milk products in milk equivalent per capita in Lithuania in 2014, as compared to 2011, increased by 3.3%. During the period of 2011–2015, consumption of certain dairy products, manufactured industrially, fluctuated and was highest in 2013. In 2015, as compared to 2014, the consumption of all products, except drinking milk and acidified milk products, has dropped, whereas consumption of cheese and butter increased (Table 2.22). The decrease in the retail prices for milk products by 5–8% and the increased purchasing power of the average monthly net wages determined an increase in the consumption of more expensive dairy products. In 2015, as compared to 2011, the purchasing power of the average monthly net wages went up according to all dairy products, except for milk fat. This had an impact on consumption: consumption of butter and acidified milk products, including sour cream, dropped, while of other products went up.

The overall Lithuanian wholesale market of dairy products in 2015 amounted to EUR 469 million. In comparison with 2011, it augmented just by 0.2%. The major part of dairy products sold on the domestic market has been manufactured in Lithuania. Nevertheless, the share of imports has a tendency towards increasing. In 2011, the imported dairy products accounted for 14.2% of the total dairy products sold on the Lithuanian market (excluding raw milk import and re-export), and in 2015 for 20%.

Table 2.22. Changes in consumption of milk and dairy products and factors influencing consumption in 2011–2015

Products	2011	2012	2013	2014	2015	2015 compared to 2011, %
Per capita consumption of milk and dairy products ¹ , kg						
Milk and dairy products (in milk equivalent)	302	303	307	312	n. d.	...
Cheese ²	17,0	18,7	20,4	17,3	18,9	111
Butter ²	3,7	4,3	3,9	3,0	3,4	92
Sour milk products ²	28,7	29,5	31,1	28,8	28,1	98
Drinking milk ²	30,1	31,5	32,5	33,2	31,7	105
Purchasing power of average monthly net wages and salaries						
Butter, kg	81	71	72	72	83	102
Sour cream, 20–30 % fat content, kg	253	176	177	176	195	77
Curd, 5–9% fat content, kg	130	133	132	132	152	117
Milk, 2,5% fat content, l	658	658	694	675	757	115
Average retail price of milk and dairy products, EUR/kg						
Butter	5,68	6,76	6,96	7,31	6,69	118
Milk, pasteurised, 2,5% fat content, EUR/l	0,70	0,73	0,72	0,78	0,73	104
Sour cream, 20–30% fat content	1,82	2,72	2,83	3,00	2,84	156
Curd, 5–9% fat content	3,55	3,60	3,78	3,98	3,64	103

¹ Statistical indicators have been revised using population figures recalculated on the basis of the results of the 2011 Population and Housing Census of the Republic of Lithuania.

² Own-produced and consumed products and direct sales excluded.

Sources: *Production of Commodities 2011–2015*. Vilnius: Statistics Lithuania. ISSN 1648-5777;

Economic and Social Development in Lithuania, Latvia and Estonia 2011–2015. Vilnius: Statistics Lithuania. ISSN 2029-5936;

Agriculture in Lithuania 2014. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658;

Main Indicators of Economic and Social Development.2016/01. Vilnius: Statistics Lithuania. ISSN 2029-364X [2016-04-08].

<<http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=22022>>;

Data of Statistics Lithuania.

The largest portion of milk products was imported from Poland – 36.5%. Cheeses, fermented and acidified dairy products, concentrated milk and sweet cream are dominating in the structure of imports of dairy products. In 2015, the total amount of imported dairy products (including ice-cream, lactose and casein, but excluding raw milk) made EUR 107.2 million, or was by 32% higher than in 2011. 87% of the imported products were sold on the domestic market, the other part was re-exported. With an increase in the sales of imported dairy products, the volumes of products sold by Lithuanian producers of dairy products on the domestic market, which went on increasing until 2012, decreased in 2013 by 2.8%, in 2014 it almost has not changed, and in 2015, as compared to the last year, dropped by 6.5% and EUR 375 million.

Wholesale prices for dairy products by Lithuanian producers sold on the domestic market went on rising from 2011 to June 2014, except for April–September 2012. Later, until the end of 2014, they were dropping, and during the year 2015 they increased by 1.1%. In December 2015, as compared to December 2010, wholesale prices for dairy products by Lithuanian producers sold on the domestic market have increased by 12%.

Export of milk and milk products. Balance of Lithuania's foreign trade in milk and milk products in 2011–2015 was positive: in 2011 exports surpassed imports by EUR 312.4 million, and in 2015 by EUR 241.9 million. The growth rate of imports, however, excelled exports: within the period of 2011–2015 imports increased by 3.4%, exports decreased by 13.1%.

Export of milk and milk products went on increasing within 2011–2014, and in 2015 decreased and was lowest during the entire period under analysis. In 2015, export of milk and milk products (including ice-cream, lactose and casein) amounted to EUR 427.3 million. Cheese and curd accounted for 44% of the total exports, not concentrated milk and sweet cream for 27%, concentrated milk and sweet cream for 10%. Shipment of raw milk reached 5.5% of the total exports of milk and milk products. In 2015, as compared to 2011, exports increased only of butter, ice-cream (by 2 times each), not-processed cheese and curd (9%). In addition to casein, very small amounts thereof were exported, a decrease in exports of whole milk powder (83%), yoghurt (55%) and condensed sugar-free milk (51%) was noted (Table 2.23).

Table 2.23. Exports of milk and dairy products in 2011–2015, EUR million

CN code	Products	2011	2012	2013	2014	2015	2015 compared to 2011, %
0401	Milk & cream, not concentrated	120,5	104,4	142,9	140,1	113,4	94
0402	Milk & cream, concentrated	60,4	83,8	82,0	93,0	40,7	67
040210	Skimmed milk powder	39,4	58,5	66,4	79,5	28,2	72
040221	Whole milk powder	3,0	7,2	2,5	0,5	0,5	17
040291	Condensed milk without sugar	6,5	6,2	1,2	3,2	3,2	49
040299	Condensed milk with sugar	11,4	11,8	11,9	9,6	8,8	77
0403	Fermented or acidified milk & cream	10,7	15,3	20,3	16,7	8,2	77
040310	Yogurt	3,8	7,2	9,9	8,0	1,7	45
0404	Whey & products consisting of natural milk constituents	27,6	33,4	43,0	31,8	20,9	76
0405	Butter & other fats & oils derived from milk, dairy spreads	10,7	17,0	24,1	31,0	21,8	204
0406	Curd & cheese	235,6	276,3	270,6	255,9	186,2	79
040610	Fresh cheese & curd	96,5	126,4	123,7	121,3	104,9	109
040690	Other cheese	135,5	145,4	141,3	129,5	77,0	57
210500	Ice cream	13,4	15,8	21,4	26,3	27,3	204
350110	Casein	0,09	0,0	0,0	0,0	0,0	3
170211-19	Milk sugar	12,8	15,6	13,7	14,4	8,9	70

Source: Statistics Lithuania.

In 2015, the main countries for export of dairy products were the EU countries and the USA. As a result of an embargo on food products, imposed in August 2014 by Russia, the share of milk and milk products exported to this country reduced noticeably: from 30.2% in 2011 to 2.4% in 2015 (Fig. 2.11). The share of milk and milk products exported to the EU countries increased by 12.3 percentage points. Searching for new

markets for the products that have been previously exported to Russia, larger amounts of dairy products began to be shipped to the countries which formerly constituted a very small share as well as to new markets.

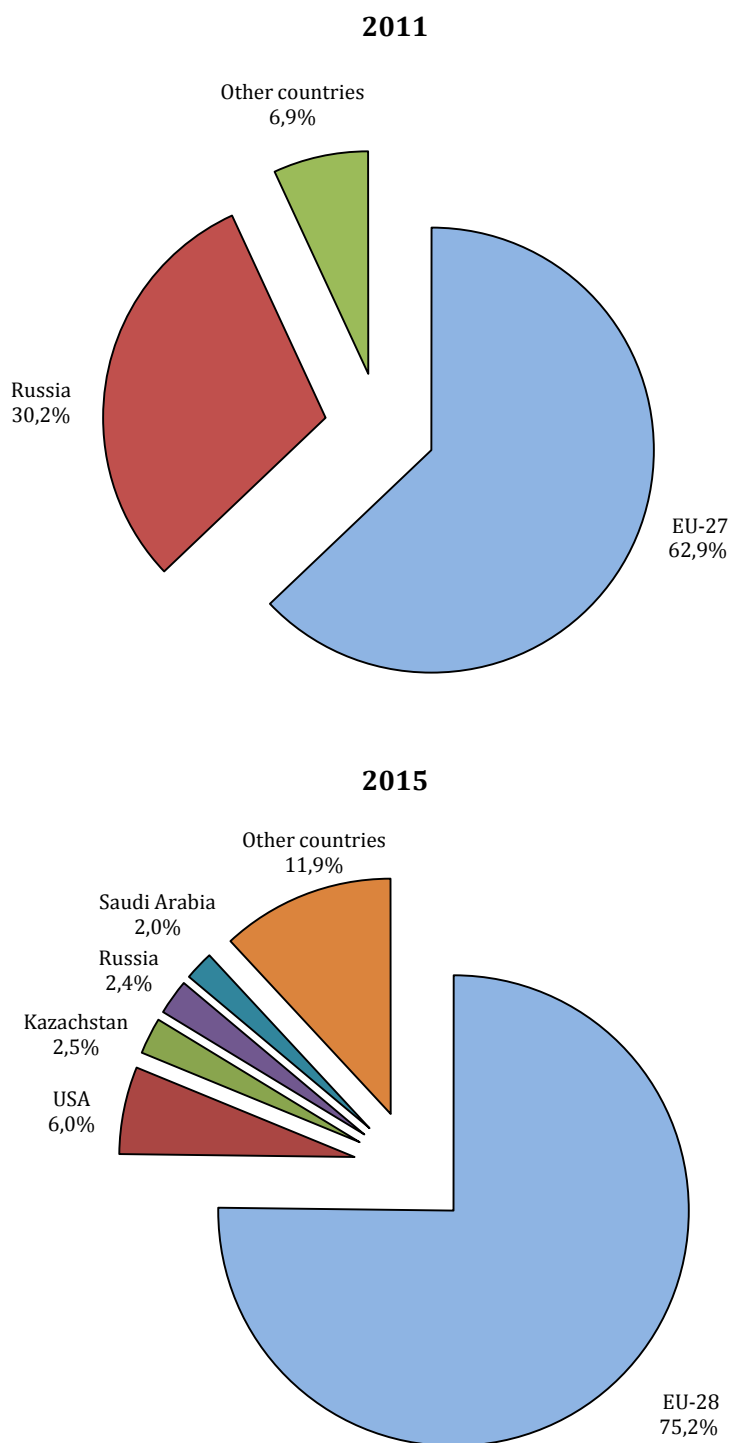


Fig. 2.11. Structure of the export of milk and dairy products by country group in 2011 and 2015

Source: Statistics Lithuania.

Prices of exported dairy products in the period of 2011–2013 fluctuated, though retained a tendency of increasing. In 2014–2015 a rather rapid drop in prices was noted. In December 2015 as compared to December 2010 prices for exported milk and milk products decreased by 12%.

Market regulation measures. In Lithuania, like in the entire EU, the common market organisation measures for milk and milk products as well as until 31 March 2015 the milk production quota system have been in operation.

In 2004, the total amount of national milk production quota of 1647 thou. t was approved for Lithuania: 1280 thou. t of sales for processing and 367 thou. t for direct consumption. Since the quota period of 2006–2007 (the quota year would start on 1 April and continue until 31 March of the following year) it has been increased by 57.9 thou. t, from the quota year of 2008–2009 by 2 % – up to 1739 thou. t, each subsequent year being augmented by 1 %. The granted quota was sufficient and did not restrict the commercial milk production (Table 2.24).

Table 2.24. Fulfilment of national milk production quota in 2010–2015, %

Quota year	Quota for processing	Quota for direct consumption
2010–2011	78	58
2011–2012	80	54
2012–2013	79	51
2013–2014	79	50
2014–2015	85	53

Source: AIRBC [2016-04-12]. <<http://www.vic.lt/?mid=298>>.

In 2011, EUR 28.1 million of additional decoupled national direct payments was calculated for milk, and in 2012 EUR 27.7 million. For the year 2013, EUR 25.4 million of the decoupled transitional period national support for milk was calculated, and in 2014 EUR 19.3 million. In addition, in 2014, a special support for milk of EUR 12.3 million was granted. In 2015, the transitional period national support for milk amounted to EUR 18.25 million and additionally EUR 28.1 million of the temporary support to milk producers who suffered losses from an import embargo imposed on milk products by the Russian Federation was allocated and EUR 22.3 million of the coupled support for dairy cows.

Of the common market organisation measures for milk and milk products, in the period of 2011–2015 intervention purchases, private storage of skimmed milk powder, butter and cheese were used, as well as consumption of milk products in educational establishments according to the programme “Milk for Children” was supported. In 2011, 6.0 thou. t of intervention dairy products and in 2015 – 8.9 thou. t of intervention dairy products were purchased to intervention warehouses. In 2014, private storage of 2.8 thou. t of skimmed milk powder and 0.1 thou. t of butter and in 2015 – 5.6 thou. t of skimmed milk powder, 3.6 thou. t of butter and 1.2 thou. t of cheese was supported. According to the programme “Milk for Children”, in 2011 the EU support amounting to

EUR 2.14 million, in 2012 EUR 4.75 million, in 2013 EUR 5.79 million, in 2014 EUR 3.05 million, in the first half of 2015 EUR 1.67 million was paid.

Economic indicators. Milk production at specialised dairy farmers' farms was profitable in 2011, though losses have been suffered in 2014. Pursuant to the FADN data relating to the respondent farms, the net profitability (net profit and production subsidies per one EUR of sales income from agriculture, including VAT deduction) at farmers' farms, the main revenue thereof was income derived from milk, totalled 31.4% in 2011, and subsidies exclusive 3.2% of losses. In 2014, the net loss reached 5.6%, subsidies inclusive, and 46.9% of losses, subsidies exclusive.

Milk production was one of the more profitable branches of farming at agricultural companies and enterprises (Fig. 2.12). The gap from the average profitability of agricultural production sales in 2011 reached even 14.7 percentage points. In 2012, for the first time from the year 2000, the average agricultural production profitability has outperformed the milk production profitability by 2.6 percentage points; however, in 2013, the milk production profitability by 9.6 percentage points again was ahead of the gross agricultural production profitability, and in 2014 even by 13.1% higher.

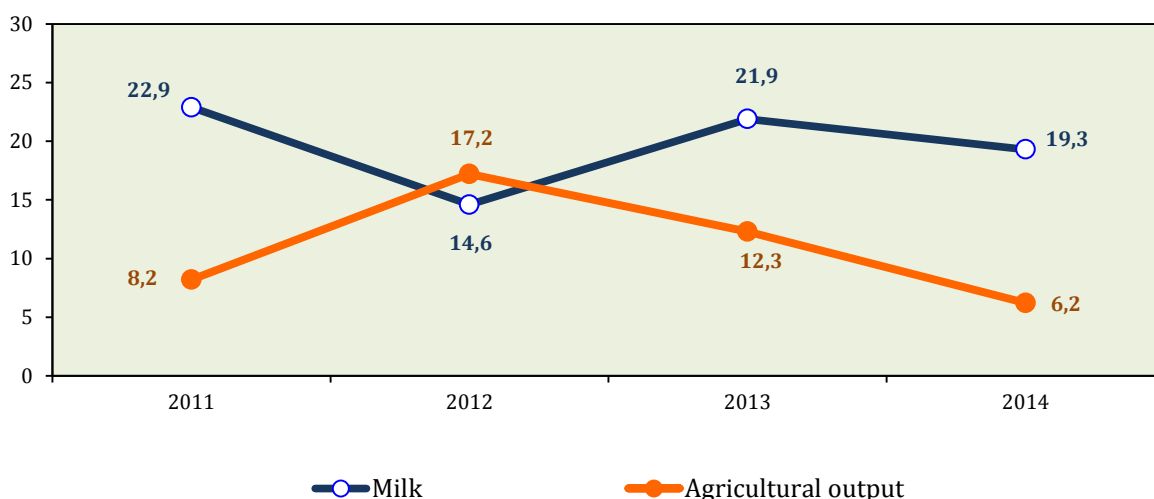


Fig. 2.12. Profitability (without subsidies) of milk and total agricultural output in agricultural companies and enterprises in 2011–2014, %

Sources: Official statistical forms of agricultural companies and other agricultural enterprises 2011–2014. – AIRBC [2016-04-12. <http://www.vic.lt/?mid=533>>.

Fluctuations in milk purchase prices had the major impact on the profitability of milk production in 2011–2014. A decline in milk purchase prices conditioned a decrease in the milk production profitability in 2012. The gross agricultural production profitability in the afore-mentioned period went up due to the evidently increased purchase prices for cereals. In 2013, the milk purchase prices and simultaneously the milk production profitability increased, whereas a price drop in 2014 had a negative effect on profitability. The average cost price of sold milk production in agricultural companies and enterprises in 2011 amounted to 215 EUR/t, if calculated by reckonable weight, and in 2014 increased

to 227 EUR/t, i.e. by 5.6%. The cost price of natural milk in 2014 compared to 2011 increased by 3.7%.

The operation of the four major groups of Lithuanian milk processing enterprises, enrolled in the lists of the Vilnius Stock Exchange, was profitable during the period of 2011–2015 (Table 2.25). In 2015, the net profitability, comparing with 2011, declined by 0.8 percentage points.

Table 2.25. Net profitability of major dairy enterprises in 2011–2015, %

Indicator	2011	2012	2013	2014	2015
Net profitability	3,1	3,9	3,1	1,4	2,3

Source: NASDAQ OMX, [2016-04-14]. <<http://www.nasdaqomxbaltic.com/market/?pg=reports>>.

In 2011–2013, the profitability of the processing enterprises got increased due to the increased global prices for milk products, even though in 2013 the banned export of milk products to Russia at the end of the year had a certain impact on the profitability. In 2014, profitability decreased as a result of the fall in prices for exported milk products and in August an import embargo on food products announced by Russia. In 2015, even though global prices for milk products went on further reducing and Russia's embargo was not lifted, the noticeably reduced milk purchase prices helped the processing enterprises to gain a higher profit.

3.3. Meat

Animal husbandry in Lithuania is an important branch of agriculture, supplying consumers of the country with various livestock-farming products and agriculture with organic fertilizers. Already for a decade, however, a gap between plant growing and livestock-farming products has become revealed and not to the advantage of the latter. It is simpler and more beneficial to grow cereals rather than cattle or pigs. Each year the number of livestock-breeding farms and cattle has been decreasing. Exception makes meat-breed cattle and sheep-breeding farms. Priority that has been given for animal husbandry by the Government from 2014 should accelerate the restoration of the positions lost. Many problems have been accumulated in this sector: small, not cooperated livestock farms, low purchase prices for cattle and poultry, the pig-breeding complexes in Lithuania that were largest in the EU and decreasing pig herds in family farms.

Livestock-breeding. Over the period of 2011–2015, the number of cattle, dairy cows, and pigs went on decreasing, whereas the number of poultry and sheep got increased (Table 2.26). The decreasing cattle purchase prices has not stimulated an increase in the number of cattle, whereas the herd of meat-breed cattle got increased almost twice. In the EU countries the number of cattle increased by 1% per year.

Table 2.26. Number of livestock and poultry in 2011–2015 (at the end of the year), thousand

Kind of animals	2011	2012	2013	2014	2015	Change 2015, compared to 2011, %
Cattle	752,4	729,2	713,5	736,7	722,6	-4,0
of which dairy cows	349,5	331,0	315,7	314,0	300,5	-14,0
Pigs	790,3	807,5	754,6	714,2	687,8	-13,0
Poultry	8921,2	9085,6	9761,6	10218,4	9369,6	5,0
Sheep	60,4	82,8	99,6	123,8	147,1	143,5

Source: Statistics Lithuania.

Cattle. During the period of 2011-2015, the number of cattle decreased by 4 % and of dairy cows by 14%, whereas the number of beef cattle and cross-bred cattle breeds increased even by 61%. At the end of the year, they accounted for 21% of the total number of cattle.

According to the data of the Agricultural Information and Rural Business Centre, as at the end of the year 2015, cattle was raised in 64.8 thousand farms, i.e. by one-fourth less than five years ago (Table 2.27). The average size of a farm is small. On the average, 11 head of cattle were raised per farm (in the EU countries in 2013 – 38). The smaller farms are just in Romania and Bulgaria. The largest number of cattle is raised by Šilalė, Šilutė and Kelmė farmers.

Table 2.27. Farms by number of cattle in 2011 and 2015 (at the end of the year), thousand

Number of cattle per farm, heads	2011		2015	
	number of farms	number of cattle	number of farms	number of cattle
1–2	48,8	67,1	29,6	42,2
3–5	19,2	71,2	15,2	56,9
6–10	9,1	68,9	8,9	67,8
11–20	5,1	73,4	5,2	75,1
21–30	1,8	44,9	1,8	44,7
31–50	1,5	60,4	1,7	66,7
51–100	1,1	77,5	1,4	94,3
101–150	0,3	40,5	0,4	52,9
>=151	0,4	166,7	0,5	216,2
Total	87,4	670,5	64,8	716,9
Average, heads		7,7		11,1

Source: AIRBC.

In Lithuania within the period of 2011–2015, the number of farms where up to 5 head of cattle are kept decreased by 34%. During the period of five years the average size per farm increased by 44%.

In Lithuania within the period of 2011–2015, the number of pedigree beef cattle increased by 61%. At end of 2015, in Lithuania, 152.7 thousand head of beef cattle, including 29.3 thousand head of pedigree cattle were raised. Of pedigree cattle, most popular are Limousine, Charolais and Aubrac breeds. Cross-bred cattle breeds are raised most numerously (80%). The average beef cattle farm keeps 6 head of cattle.

Pigs. By the end of 2015 in Lithuania 687.8 thousand of pigs were raised, of which pedigree sows comprised 53.1 thousand (Table 2.28). During 2011–2015, the number of pigs decreased by 13%, and a herd of pedigree pigs by 22%. In 2015 pig breeders raised about 1.3 million pigs, of which 260 thousand were exported and 1020 thousand were slaughtered. At the beginning of 2014, African swine fever that spread from Belarus was fixed in Lithuania; it persisted in our country throughout 2015. Restrictions related to this disease had an impact on pig breeding and prices. Two thirds of pigs are raised in the companies and enterprises, three fourths in the farms possessing pigsties for more than 1 thou. pigs. The EU survey, conducted in 2013, showed that the largest farms (with pigsties for more than 1 thou. pigs) are in Lithuania – 14.2 thou. units, in Denmark 4363, and the Netherlands 3945. However, the average number of pigs is lowest in a Lithuanian farm – 13 pigs (the EU average is 66). By pig number per area unit Lithuania is among the countries rearing the least number of pigs.

Table 2.28. Number of pigs in 2011 and 2015 (at the end of the year), thousand

Group of pigs	2011	2015	Change 2015, compared to 2011, %
Pigs, total	790,3	687,8	-13,0
piglets, under 20 kg	138,6	120,2	-13,3
piglets, 20 to 50 kg	208,5	183,1	-12,2
pigs for fattening, 50 to 80 kg	202,3	179,3	-11,4
pigs for fattening, 80 to 110 kg	117,4	105,4	-10,2
pigs for fattening, over 110 kg	54,1	45,9	-15,2
breeding sows	68,3	53,1	-22,3
boars	1,1	0,8	-27,3

Source: Statistics Lithuania.

Sheep. Over the period of 2011–2015 their number increased almost 2.4 times. According to the data of the Agricultural Information and Rural Business Centre, at the end of 2015, 146.9 thousand sheep were raised in 10 thousand farms (Table 2.29). The Ministry of Agriculture encouraged breeding sheep in those farms where pig breeding was prohibited.

Table 2.29. Farms by number of sheep in 2011 and 2015 (at the end of the year), head

Number of sheep per farm	2011		2015	
	farms	sheep	farms	sheep
1–2	1770	2570	2377	3628
3–5	1134	4347	2313	8982
6–10	717	5367	2034	15770
11–20	496	7306	1576	22995
21–30	221	5526	694	17201
31–50	186	7022	500	19203
51–100	118	8321	340	22864
101–150	32	3983	77	9508
>=151	37	16552	73	26765
Total	4711	60994	9984	146916
Average		13		15

Source: AIRBC.

According to the data of the Department of Statistics, during 2015 the number of slaughtered sheep amounted to about 34.5 thousand, of which 82% of sheep were slaughtered in domestic slaughterhouses. The major number of sheep is raised by farmers in Alytus, Anykščiai, Zarasai and Vilnius districts.

Poultry. By the end of 2015 the number of poultry raised in Lithuania amounted to 9369.6 thousand, of which hens accounted for almost 98% (Table 2.30). Laying hens comprised more than one third. Within the period of 5 years the number of hens got increased by 5.7%. The number of geese decreased considerably (52%) and ducks (46.1%). The number of laying hens (by 20.4) and turkeys (by 11.8%) dropped, even though their number within the past years increased twice. During 2015, the number of poultry of all types (except turkeys) decreased: geese (17%), ducks (16%) and hens (9%).

Table 2.30. Number of poultry in 2011 and 2015, thousand

Poultry	2011	2015	Change 2015, compared to 2011, %
Hens, total	8658,1	9148,0	5,7
of which laying hens	4034,1	3211,1	-20,4
Geese	17,5	8,4	-52,0
Ducks	29,3	15,8	-46,1
Turkeys	207,7	183,2	-11,8
Other	8,7	14,1	32,9
Total	8921,2	9369,5	5,0

Source: Statistics Lithuania.

According to the data of the Department of Statistics, during 2015, 52.9 million of poultry were slaughtered. Poultry were mostly raised in poultry breeding farms.

Meat production. By preliminary data, animal and poultry carcass meat produced in 2015 in all farms amounted to 246.0 thou. t. As compared to 2011, meat production increased by 10% (Table 2.31).

Table 2.31. Meat production (carcasses) in 2011–2015, thousand tonnes

Kind of meat	2011	2012	2013	2014	2015*	Change 2015, compared to 2011, %
Meat, total	224,0	231,2	243,8	253,0	246,0	9,8
of which:						
pig meat	88,5	92,8	101,5	99,5	84,3	-4,7
poultry meat	83,9	88,3	95,8	104,0	101,0	20,4
beef	50,2	48,6	45,3	48,1	45,1	-10,2
sheep meat	0,6	0,7	0,8	0,8	0,7	16,6

* LIAE calculation.

Source: Agriculture in Lithuania 2014. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658;

In 2015, the volume of purchased animals and poultry amounted to 277.3 thou. t (live weight), by 3.2% more than in 2014. 141 thousand animals were purchased. This is by 7.5% more than in 2014 (Fig. 2.13).

The cattle purchase price almost in all EU countries was higher than a year ago. Prices in Sweden, the United Kingdom and Finland increased most considerably. In some countries the price has decreased, mostly in Romania and Bulgaria. The average purchase price in Lithuania was by 27% lower than the average price in the EU. During the year, the number of cattle has decreased in 13 EU countries (mostly in Croatia by 5.0%, Poland 4.2%, Estonia 2.4%, and Lithuania 2.1 %), even though in general the number of cattle was by 0.9% higher. The biggest increase was in the Netherlands (6.4%) and Ireland (5.7%). In these countries the number of cows got increased.

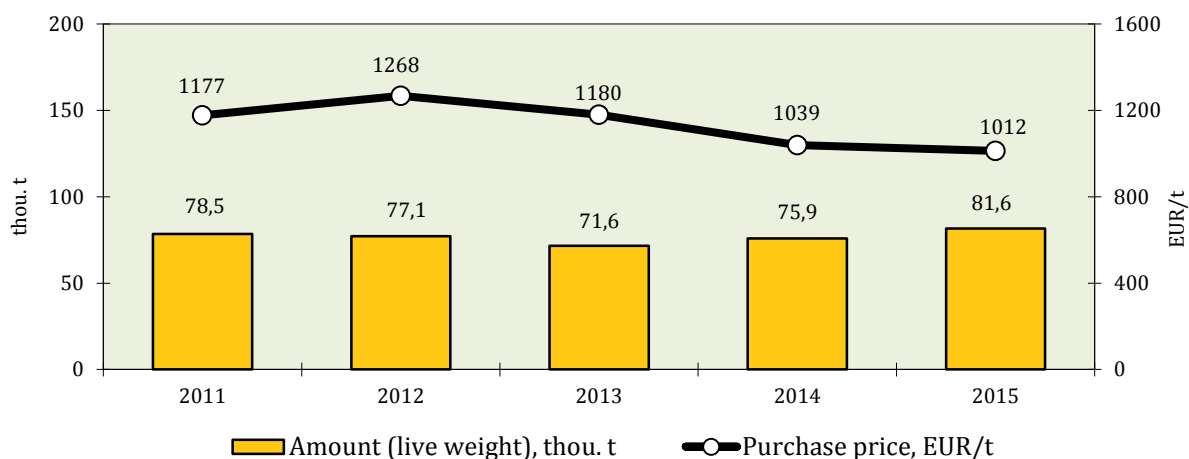


Fig. 2.13. Amounts purchased and average prices of cattle in 2011-2015

Sources: Statistics Lithuania; AIRBC.

Since mid-2013, the average purchase price for grade O₂ bulls in Lithuania was considerably lower than the average price in the EU countries and Poland (Fig. 2.14). The purchase price becomes especially distinguished in the autumn period when the supply is considerably higher than the demand. The average purchase price for bulls in the first half of the year was by 7% higher than in the second half of the year. No such fluctuations in other countries have been observed.

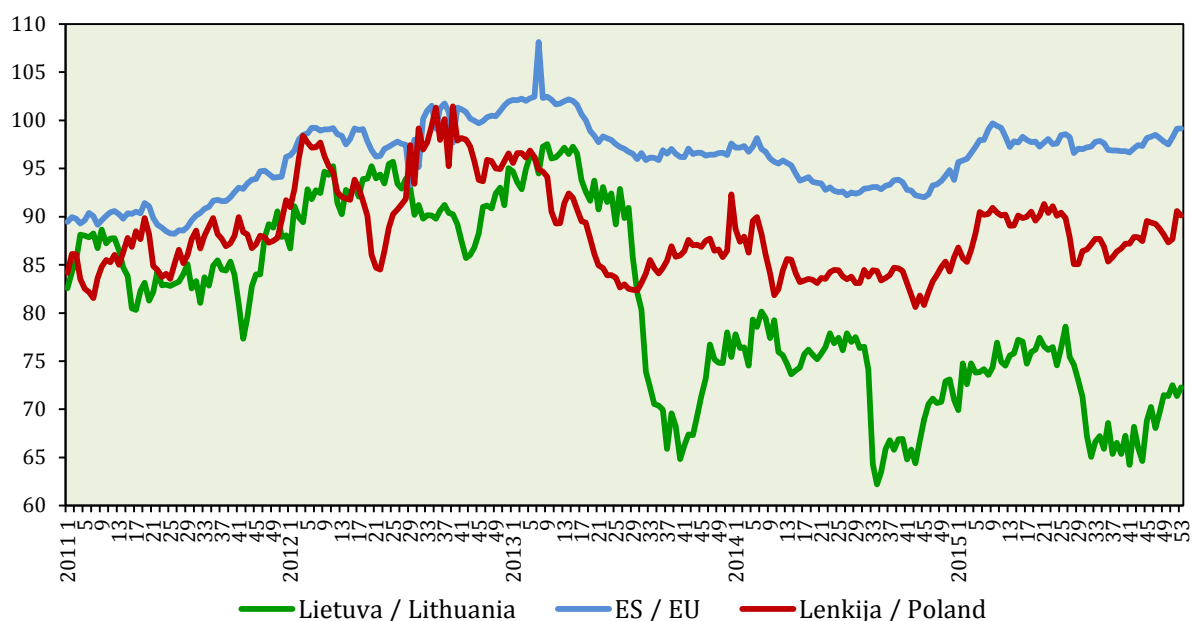


Fig. 2.14. Purchase prices of beef (carcass grade O₂) in Lithuania, Poland and EU average in 2011-2015, EUR per 100 kilogram

Source: EC data.

During 2015, slaughterhouses and meat processing enterprises purchased 623 thousand pigs raised in the farms (by 4.5% less than in 2014). In 2015, the average purchase price of live pigs was by 12% lower than in 2014 (Fig. 2.15).

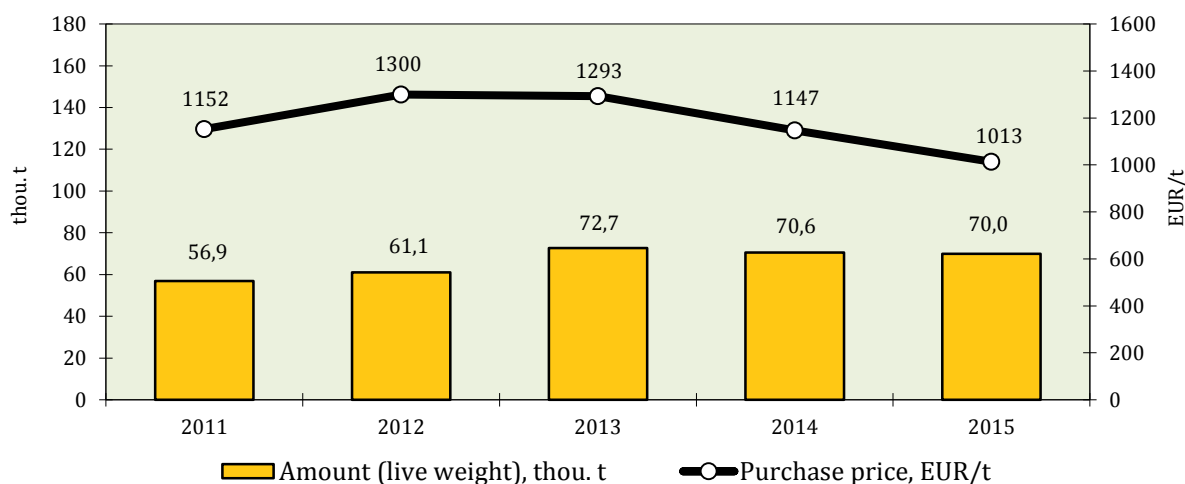


Fig. 2.15. Amounts purchased and average prices of pigs in 2011-2015

Source: Statistics Lithuania.

The purchase price tendencies for pigs on the markets of Lithuania and other EU countries are similar (Fig. 2.16). In the EU countries in December 2015 the average purchase prices of grade E pig carcasses were by 6.3% lower than in 2014. Prices have been declining for the second year already. It is a result of Russia's embargo and swine fever in Lithuania, Latvia and Poland. The highest purchase prices for grade E pigs were in Malta, Sweden, and Greece, the lowest prices in the Netherlands, Belgium, and France. In Lithuania the purchase price for pigs (grade E) was by 0.8% higher than the EU average. This is not characteristic of other agricultural products and may be explained by the insufficient local supply of pigs; therefore, more than half of pig meat, consumed in Lithuania, is imported from Poland, Belgium, the Netherlands, and Germany.

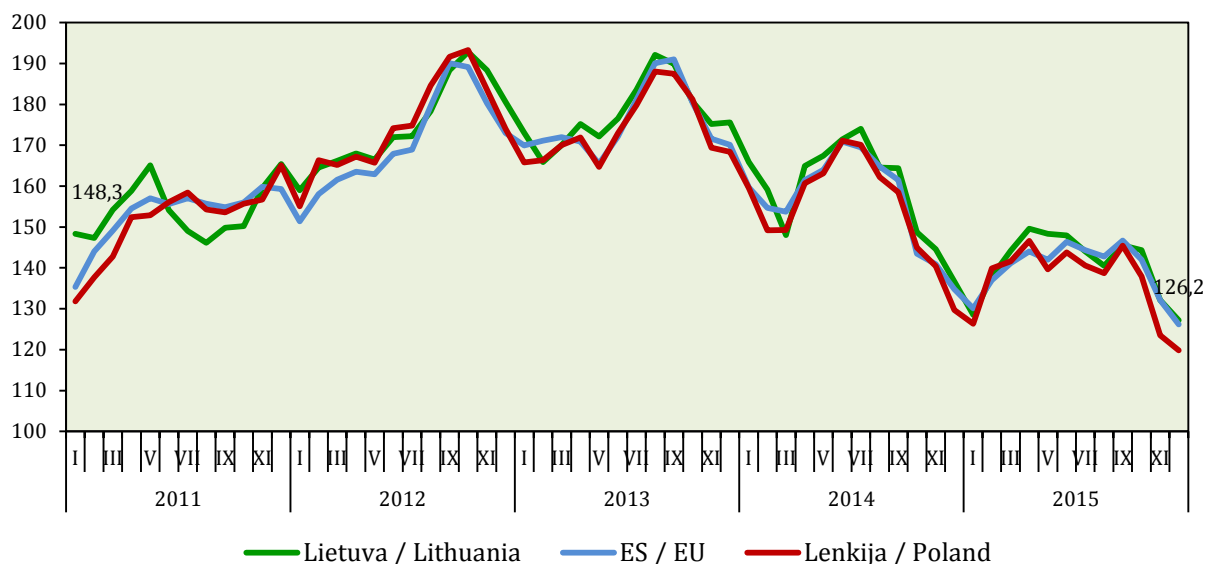


Fig. 2.16. Purchase prices of pigs (carcass grade E) in Lithuania, Poland and EU average in 2011-2015, EUR per 100 kilogram

Source: EC data.

In 2015, 49.8 million head of poultry was slaughtered (by 3.3% more than in 2014). In 2015, the average purchase price for poultry was by 0.4% lower than in 2014 (Fig. 2.17). In Lithuania, the prices for chicken meat went up slightly (1.7%). In 2015, as compared to 2014, the wholesale price of chicken meat dropped by 1.8%. Chicken meat prices went up only in five countries: France, Greece, Sweden, Lithuania, and the United Kingdom. Chicken meat in Lithuania remains one of the cheapest (cheaper is only in Poland) in the EU countries and is by 20.6% lower than the EU average.

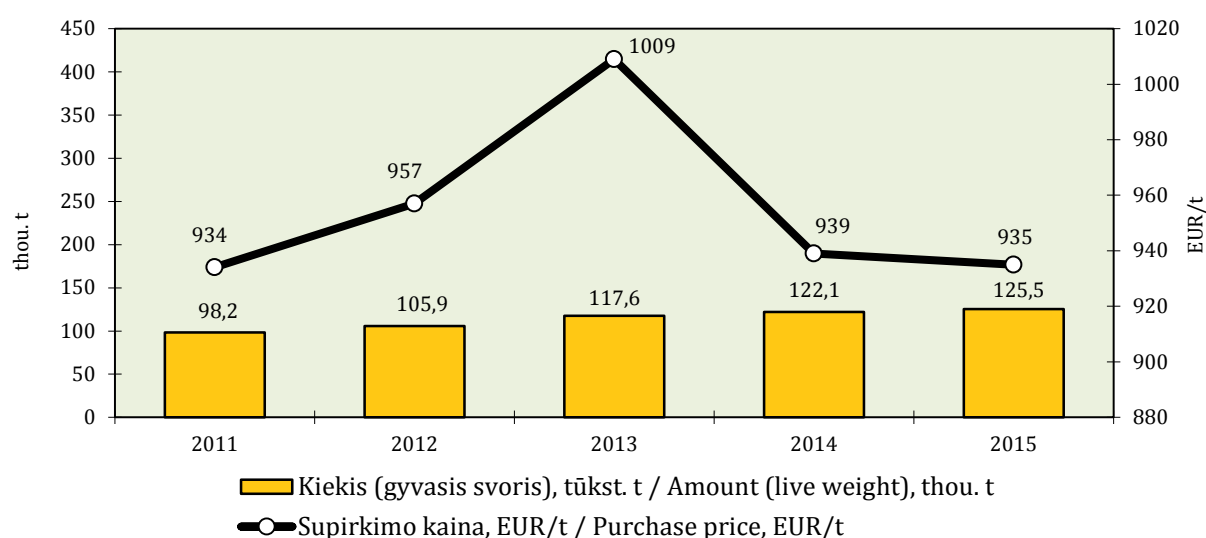


Fig. 2.17. Amounts purchased and average prices of poultry in 2011–2015

Source: EC data.

Domestic market. In 2015, 276 thou. t of meat and meat products were sold in the domestic market for EUR 0.5 billion (Table 2.32). During the period of 5 years no substantial changes in this group of food products occurred. More than half of the sales (57%) consist of unprocessed meat and poultry. We consume almost only the products of local make. Just about 7% of the products are imported. Over the period of 2011–2015, meat consumption has not changed, whereas its consumption per capita went on increasing.

Table 2.32. Sales of meat and meat products in the domestic market in 2011 and 2015

Products	2011		2015	
	thou. t	mill. EUR	thou. t	mill. EUR.
Meat and sub-products	106,8	198,2	100,9	163,0
Poultry meat and sub-products	49,9	71,3	57,5	88,4
Meat products	100,2	237,3	99,2	254,7
Imported meat products	20,8	35,1	18,4	36,0
Total	277,7	541,9	276,0	542,1

Source: Statistics Lithuania.

According to the LIAE calculations, in 2015, per capita consumption in Lithuania was 84 kg of meat and meat products (including Category I and II offal) (Table 2.33). Pig meat and poultry meat remain the mostly consumed sorts of meat, even though half of pig meat is imported.

Table 2.33. Per capita consumption of meat products in 2011–2015, kilograms

Meat by kind	2011	2012	2013	2014	2015*
Meat, total	69	73	77	83	84
of which:					
beef	4	4	4	4	5
pork	42	44	47	49	47
poultry	21	23	23	26	28
sub-products, category I and II	2	2	3	4	4

* LIAE calculation.

Source: Agriculture in Lithuania 2011–2014. Vilnius: Statistics Lithuania, ISSN 2029-3658.

According to the 2013 data by the European Commission, the average meat consumption in the EU was 83 kg. Lithuanians consume more pig meat (in the EU 40 kg), a level of consumption of poultry meat is almost the same (EU 24 kg), and that of bovine meat substantially less (in the EU 15 kg).

Foreign trade. In 2015, the balance of Lithuanian foreign trade in meat and livestock was positive (Fig. 2.18). The export value of meat increased by 1.5%, and that of import decreased by 3.6%. Over the period of 2011–2015, export of poultry meat (Table 2.34) and import of pig meat and poultry increased most significantly



Fig. 2.18. Foreign trade in meat and livestock in 2011–2015, EUR million

Source: Statistics Lithuania.

Export of poultry meat and beef in 2015 made the major portion (Table 2.34). Poultry meat was mostly purchased in the Netherlands (20%), Latvia (13 %), and the Ukraine (13%). Export geography: 37 countries, 72% of the production were shipped to the EU countries.

Table 2.34. Meat* exports by kind in 2011–2015, thousand tonnes

Meat by kind	2011	2012	2013	2014	2015**
Meat, total	110,0	118,6	128,1	131,5	147,0
of which:					
beef	31,1	30,0	25,4	29,5	34,0
pork	23,2	27,6	35,7	22,3	31,6
poultry	35,9	44,3	50,9	52,7	57,7

* Meat products in meat equivalent.

** LIAE calculation.

Sources: *Agriculture in Lithuania 2014*. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658; *Statistics Lithuania*.

Bovine meat was exported to the Netherlands (25%), Italy (18%), and Poland (12%). 91% was exported to the EU countries. During the year, due to Russia's embargo, volumes of export to the EU countries increased by 75%

Export of pig meat per year (including re-export) increased by 60%. Exports were made to Latvia (42%), the Ukraine (23%), Georgia (15%), and Poland (8%).

Of live animals exported, the major part belongs to pigs (49% of the total animal export income) and cattle (46%), of which 54% consisted of calves up to 8 months. Export of calves was by 10% higher than in 2014. In 2015, purchase of calves was highest in the Netherlands (26%), Poland (21%), and Spain (18%).

An increase in import of pig meat (by 14%) and poultry meat (by 12%) was observed during 2015 (Table 2.35). Pig meat was imported from Poland (25%), Belgium (18%), and Germany (15%). EUR 105.6 million was spent for pig meat. 73% of poultry meat was imported from Poland.

Table 2.35. Meat* imports by kind in 2011–2015, thousand tonnes

Meat by kind	2011	2012	2013	2014	2015**
Meat, total	128,4	131,7	141,1	145,2	158,8
of which:					
beef	3,4	2,3	2,4	2,2	2,1
pork	83,2	85,4	90,6	84,1	95,7
poultry	25,2	32,3	35,0	36,1	40,4

* Meat products in meat equivalent.

** LIAE calculation.

Sources: *Agriculture in Lithuania 2014*. Vilnius: Statistics Lithuania, 2015. ISSN 2029-3658; *Statistics Lithuania*.

Certain decisions in tackling problems are optimistic. After an embargo on food imposed by Russia, Lithuanian meat processors succeeded in directing all the flows of supply from Russia to the EU countries and increasing exports of both bovine meat and pig meat. The number of meat-breed cattle and sheep has been increasing.

SUMMARY

In 2015 the sector of agriculture, forestry and fisheries accounted for 3.3% of the gross value-added created in the Lithuanian economy, comprised more than 16.6% of the total foreign trade turnover, guaranteed workplaces for nearly one tenth of the employed population.

In 2015 the export of agricultural and food products totalled EUR 4.5 billion (by 3.8% less than in 2014), while the import amounted to EUR 3.6 billion (by 3.7% less). Since 2004 the balance of foreign trade in agricultural and food products was positive, but in 2015, as compared to 2014, it dropped by EUR 40 million and totalled EUR 899 billion.

Aiming to increase the competitiveness of agriculture, to support farmers' income, to reduce social exclusion between rural and urban population, to save the environment, the economic entities are supported from the EU and national budgets. In 2015 the funds for agriculture made up EUR 1083.5 million.

In 2011–2015 the number of agricultural entities by category was changing unevenly. In 2015, as compared to 2011, the number of registered farmers' farms went up by 2.4% and, as compared to 2014, increased by 0.4%. The average farm size of agricultural entities that declared UAA in 2015 was 20.6 ha, or by 3.5% larger than in 2014 and by 26.4% more than in 2011.

In 2015 the certified organic area in Lithuania occupied 220 thousand hectares, or was by 39.4% larger than in 2011. The average size of a certified farm (including fishery farms) increased from 68.3 ha (in 2014) to 82.4 ha (in 2015).

The composition of the total land area by its intended purpose was almost stable. The largest share occupied agricultural land (52.6%) and forests (33.7%).

Changes in rural employment structure should be considered as the most important event of recent years in Lithuania's rural life. In 2011, 28.2% of rural working population were employed in agriculture, forestry and fisheries. Lately, however, when the economic situation has improved, the share of the population employed in agriculture has went down while the share of the population involved in services has augmented. In 2015, 27.7% of the employed rural population were involved in agriculture, hunting, forestry and fisheries.

In 2015, as compared to 2014, the number of small and medium-sized enterprises in rural areas increased by 5.8% and reached 12.8 thousand (nearly 80% of which made up micro-enterprises).

One of the main future challenges of the development of agriculture and food sector remains the increase of labour productivity, which still lags behind the EU-28 average. Such a need is determined by stiff competition in international markets.