LITHUANIAN INSTITUTE OF AGRARIAN ECONOMICS

AGRICULTURAL AND FOOD SECTOR IN LITHUANIA

2018

VILNIUS, 2019

An analytical review of the Lithuanian agricultural and food sector over the period of 2014–2018. "Agricultural and Food Sector in Lithuania 2018" 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
AWU – annual work unit
CAP – Common Agricultural Policy
CN – Combined Nomenclature
EAGF – European Agricultural Guarantee Fund
EC – European Commission
EU – European Union
FADN – Farm Accountancy Data Network
LAG – local actions group
LIAE – Lithuanian Institute of Agrarian Economics
NPA – National Paying Agency
RDP – Rural Development Programme
TNA – transitional national aid
UAA – utilized agricultural area
USA – United States of Amerika
VAT – Value added tax

ISSN 2351-6321 (Online)

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FOREWORD

The Lithuanian Institute of Agrarian Economics (LIAE) presents the twentieth jubilee edition of the annual publication "Agricultural and Food Sector in Lithuania 2018". In the course of two decades the publication has attracted a broad circle of readers. Informative material contained here might be useful for agricultural specialists and scientists, farmers and entrepreneurs, lecturers and students. Quite a number of ministries of the Republic of Lithuania, embassies and other state institutions make reference to this publication.

The publication provides material highlighting Lithuania's achievements in agriculture and food industry and their determinant factors, national agricultural and food product manufacture and sales on domestic and foreign markets, as well as changes in the economic and production performance of agricultural and food sector farms and enterprises.

Great relevance of the publication is owing to the exclusive competitive priorities of Lithuanian agriculture in the context of the European Union (EU) member states, the issues and challenges advanced, while meeting the EU Common Agricultural Policy (CAP) programming period for 2021–2027. This is the basis in discussing the Lithuanian agricultural programming objectives, tasks and types of intervention measures.

The publication provides mainly the five-year period variations in the agricultural and food sector development indices, focusing special attention on the 2018 outcomes. Pursuing to retain the opportunity for comparing the key indices and their tendencies, data in all surveys is provided following the single methodology and structure.

The publication has been prepared according to the statistical information from the Department of Statistics to the Government of the Republic of Lithuania (Statistics Lithuania), Eurostat, European Commission (EC), the Agricultural Information and Rural Business Centre (AIRBC), the National Paying Agency (NPA), the Public Enterprise "Ekoagros" and the LIAE research results (Farm Accountancy Data Network (FADN), Economic Accounts for Agriculture, etc.). As in any previous year, some provisional statistical data for the year 2018 have been used. Final economic and financial outcomes will be elucidated in the later publications of Statistics Lithuania and in the next-year LIAE survey.

Our sincere gratitude goes to the executives and staff members of the afore-mentioned institutions for expeditious provision of statistical information and advice.

The annual publication "Agricultural and Food Sector in Lithuania 2018" is funded by the Ministry of Agriculture of the Republic of Lithuania. The authors of the publication believe that this material will be useful for all interested in Lithuanian agricultural and food sector topicalities and welcome any feedback from you, dear readers.

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. Meeting the 2021–2027 programming period of the Common Agricultural Policy: the challenges of Lithuanian agriculture

The fifteen-year jubilee of Lithuania's membership in the EU in the year 2019 has coincided with the beginning of preparation for the new EU programming period post 2020. Support granted under the CAP to Lithuania's agriculture in the course of 15 years and the open common market after entering the EU that predetermined the free movement of capital, goods and employees have changed the structure of Lithuanian agriculture as well as the rural economic and social situation. Of importance in commencing to plan the new programming period measures is the evaluation of the tendencies characteristic of Lithuanian agriculture in the past years and of the achievements attained in the context of the EU member states.

Upon surveying Lithuania's strategic documents from the beginning of its membership in the EU, a conclusion may be drawn that enhancement of farm competitiveness by providing support to investments has been selected as a priority target in the national agricultural policy. It was expected that with the better supply of large farms with capital the general production created in agriculture would augment and farmers' income would increase, whereas non-competitive farms, without investment potential, would withdraw from activities, transferring their land to those farms that may take advantage of priorities of economies of scale. Those efforts predetermined the rapid growth of medium-sized farms in Lithuania. According to the 2010 agricultural census data and 2016 agricultural structure research data, the size of a medium-sized farm has increased from 13.7 ha (in 2010) to 19.6 ha (in 2016), i. e. by 1.4 times. While evaluating the average economic size of a farm, its growth within the same period was still faster – 1.9 times (from EUR 7635 to 14810).

Support for investments stimulated the farms to invest more actively. In 2017 national agricultural investments in gross fixed capital formation at the then prices amounted to EUR 679.3 million, this making 33% of the average in the EU member states. In 2017, compared to 2012, investments in gross fixed capital formation have increased by 70.2% (Fig. 1.1). According to the data of economic accounts for agriculture, the major portion of expenditure on gross fixed capital formation in 2012–2017 (on average, 89.6% per annum) consisted of investments in agricultural machinery and equipment, means of transport, buildings and intangible assets (e. g., software). In 2017, investments in gross fixed capital formation accounted for 74.3% of gross value added, created in agriculture.

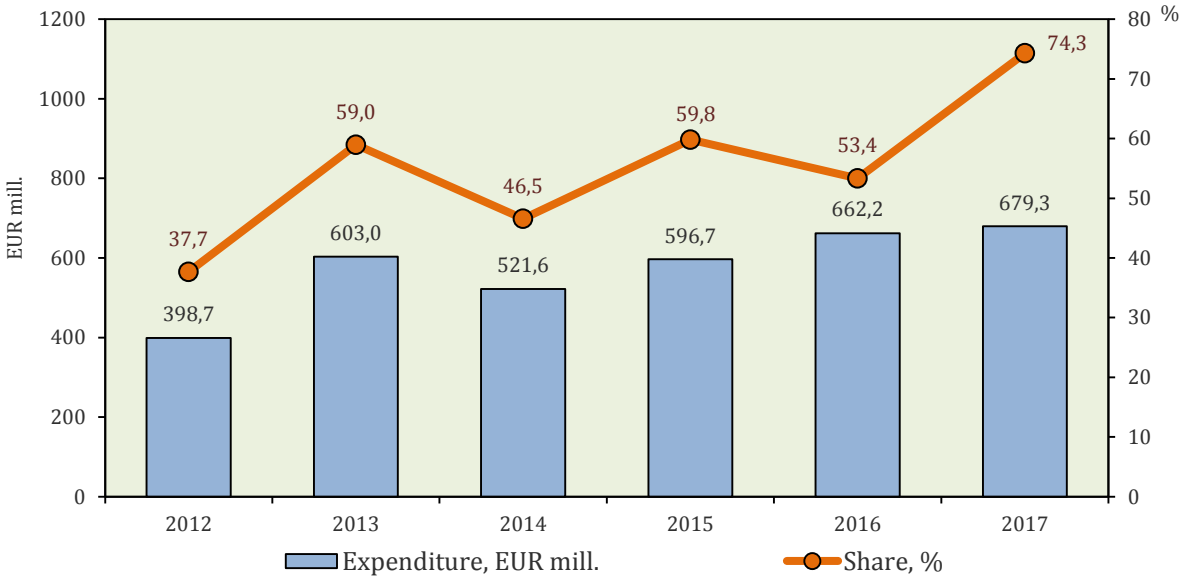


Fig. 1.1. Expenditure on gross fixed capital formation and its share in gross value added in Lithuanian agriculture in 2012–2017

Source: Eurostat data.

The FADN data show that investment process took place in farms of all economic size groups. Comparing gross investment of farms by economic size groups in Lithuania and the EU countries it is seen that it was considerably higher in Lithuanian farms of all economic size groups as compared to farms in the EU countries of the corresponding economic size groups, for example, the biggest farms producing standard production amounting to EUR 500 thousand and more – 2.1 times, the smallest farms manufacturing standard production from EUR 2 to 8 thousand – even 13.2 times (Fig.1.2). This also shows the active participation of Lithuanian smaller farms in improving self-sufficiency in agricultural machinery and equipment and other assets.

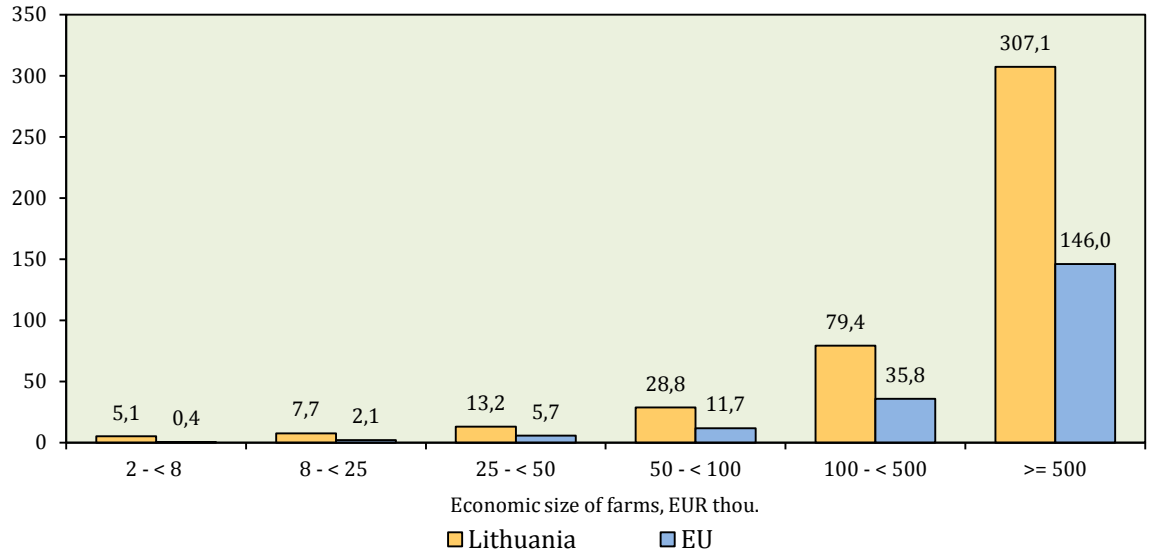


Fig. 1.2. Gross investment of farms by economic size group in Lithuania and EU countries on average over 2012–2017, EUR thou.

Source: EU FADN data.

Due to sustainable investment process in 2017, compared to 2012, the total assets in Lithuanian farms have increased, on the average, by 15.7%, and fixed assets by 16.5%. Self-sufficiency in assets has increased in farms of all economic size groups. (Table 1.1).

Table 1.1. Changes in the assets of Lithuanian farms by economic size group in 2017, compared to 2012, %

Economic size groups, EUR thou.	Total assets	Fixed assets	Current assets
2–<8	13,2	5,5	37,7
8–<25	23,7	17,0	40,3
25–<50	4,1	0,9	10,5
50–<100	9,2	10,9	5,9
100–<500	11,6	27,3	-14,6
>=500	24,5	31,0	16,9

Source: estimated by the author based on EU FADN data.

Total assets have increased most substantially in farms of largest economic size groups (EUR 500 thousand and more of standard production) – by almost one-fourth, and fixed assets in these farms have increased even more rapidly – by 31.0%. While implementing the previous agricultural development programmes, the farms mostly got self-supplied in agricultural machinery. In recent years, these farms made more considerable investments in the acquisition of land plots and more than twice increased the value of land belonging to private property, construction of production buildings (the value got increased 1.3 times) and expansion of pedigree herd (the value got increased by 26%). Farms of small economic size groups also improved their self-sufficiency in assets: assets of farms of economic size groups from EUR 2 to 8 thousand and from EUR 8 to 25 thousand have increased by 13.2% and 23.7%, respectively.

The 2012–2017 FADN data show that farms of the EU countries, attributed to all economic size groups, with lower than EUR 500 thousand, are better self-sufficient in assets as compared to the corresponding farms of the same economic size groups in Lithuania. Assets of all farms in Lithuania and the EU Member States differed in 2012–2017 on average 2.8 times (Fig. 1.3). For example, assets of Lithuanian farms attributed to an economic size group from EUR 100 to 500 thousand accounted for 69.9%, and of farms attributed to an economic size group from EUR 25 to 50 thousand accounted just for 50.5% of the assets of farms in the EU countries attributed to the corresponding economic size groups. However, Lithuanian farms, attributed to the biggest economic size group (EUR 500 thousand and more), owned assets 1.3 times exceeding assets possessed by the EU farms of the same economic size group. This shows that in order to improve the further performance, investments are necessary not only into the largest farms but also into other groups of farms.

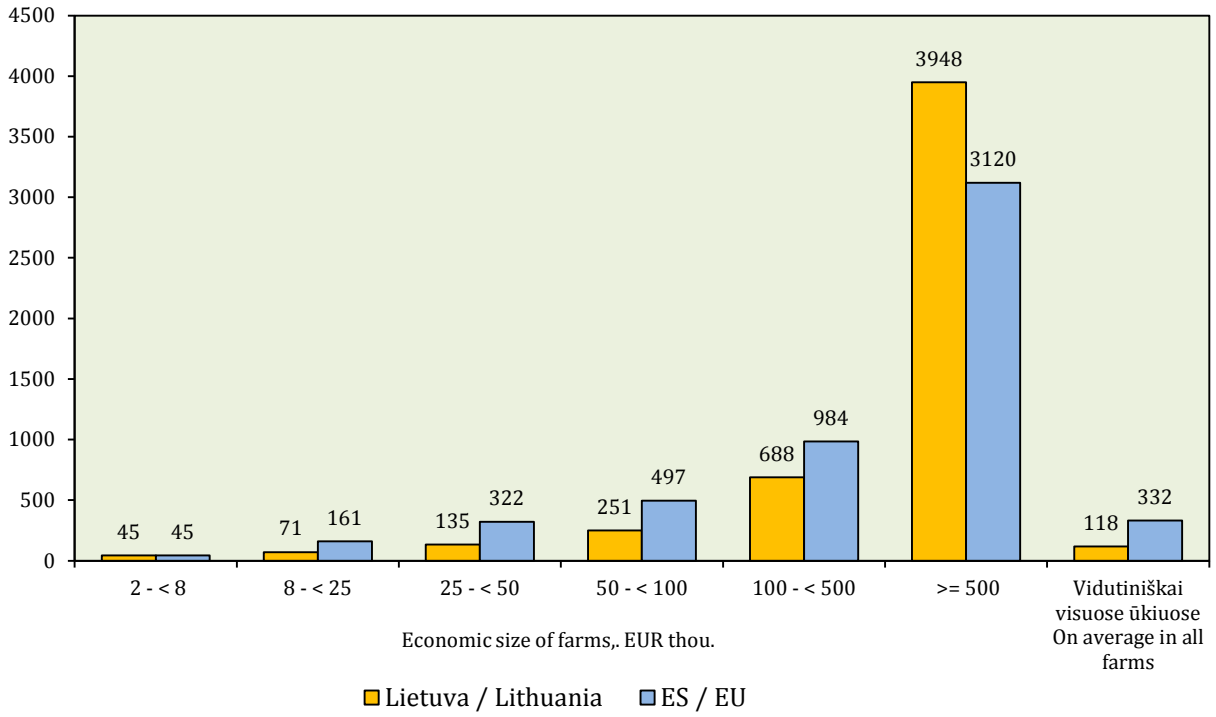


Fig. 1.3. Farm assets by economic size group in Lithuania and EU countries on average over 2012–2017, EUR thou.

Source: EU FADN data.

When estimating the effects of support for investment on competitiveness of Lithuanian farms, an important indicator is the increasing volumes of gross production of products. Quite rapid growth of this indicator has been followed up since the beginning of Lithuania's membership in the EU and was related to the improvement of self-sufficiency of farms in assets. Nevertheless, the growth rate since 2013 went on decreasing (Table 1.2). The average growth rate of gross production in agriculture, fisheries and forestry in 2013–2017 stood at 2.7%.

Table 1.2. Macroeconomic indicators in the agricultural and food sector in 2012–2018

Indicators	2012	2013	2014	2015	2016	2017	2018*
Value of gross production in agriculture, forestry and fisheries, EUR mill.	3353	3326	3424	3467	3361	3692	...
Gross value added, at current prices, EUR mill.	30165	31690	33068	33709	34958	37917*	40529*
Gross value added created in agriculture, forestry and fisheries, EUR mill.	1340	1251	1252	1288	1196	1315*	1214*
Share of agriculture, forestry and fisheries in gross value added, %	4,4	3,9	3,8	3,8	3,4	3,5	3,0

* Preliminary data.

Sources: Statistics Lithuania and Eurostat data.

In 2012–2017 Lithuania failed to achieve a significant increase in the value of gross agricultural output as a result of natural hazards (rainy periods and droughts), thus aggravating the economic results of farms in 2016 and 2017. According to the FADN data, only farms that have been attributed to the largest economic size group were able within the period under analysis to control the consequences of natural hazards, to boost the manufactured production and thus to reduce profitability losses due to the growing depreciation. It should be noted that increasing production output in these farms was also determined by investment in expanding privately-owned land plots. A situational analysis shows that due to climate changes it has become still more difficult to predict agricultural performance financial results, and while planning investments it is necessary to take into account natural risk factors.

According to FADN data, in 2017 Lithuania was ranked just fourth at the bottom-up list among the EU member states by total output per hectare of utilised agricultural area (UAA) on average. The average output per hectare of UAA in all Lithuanian farms in 2012–2017 reached just 37% of the average in the EU member states (Fig. 1.4). Land productivity indicators of Lithuanian farms of all economic size groups were lower than those of corresponding EU farms of the same economic size groups. Enhancement of the agricultural output volumes has become the ambiguous challenge, since, on the one hand, it conditions the better utilisation of capital; on the other hand, production intensification threatens the overuse of natural resources in the production. A need for still more extensive application of sustainable farming technologies prevents a reckless ambition to achieve the intensive agricultural production output. Owing to this reason, Lithuanian agricultural productivity results should not be subject to straightforward comparison with the results in the EU countries where intensive farming has been practised for many years and now is targeted to reduce the extent of intensive farming.

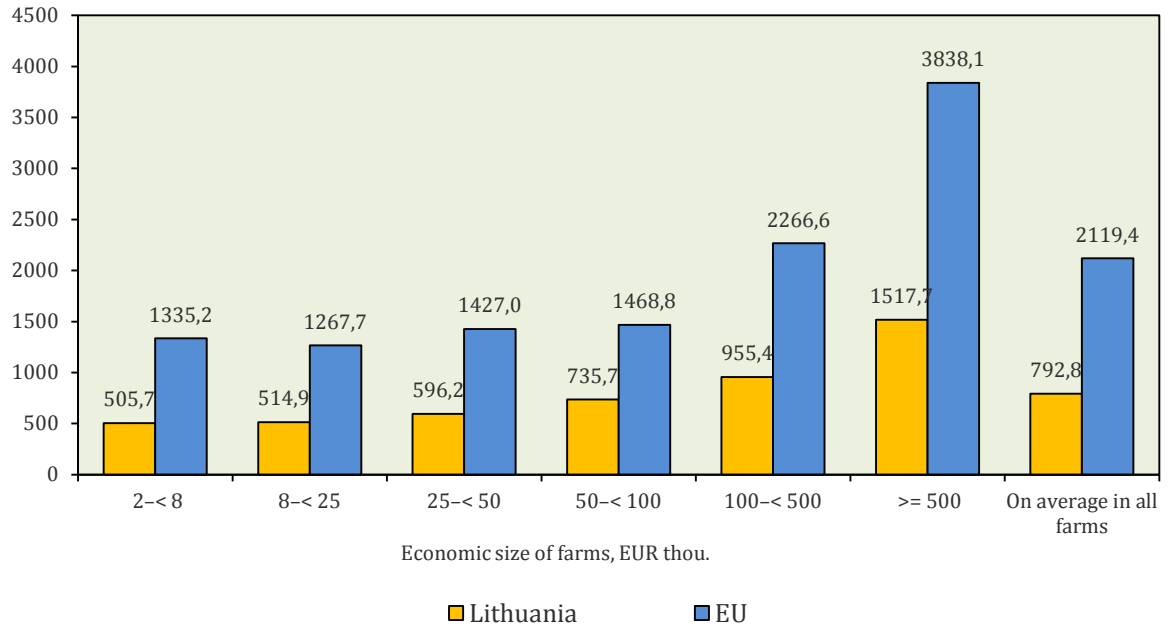


Fig. 1.4. Farm total output per 1 ha of UAA by economic size group in Lithuania and EU countries on average over 2012–2017

Source: EU FADN data.

Better self-sufficiency in assets had to contribute to increasing labour productivity and creating preconditions for farm income boosting. Lithuania is still among the EU countries that according to gross value added per annual work unit (AWU) are lagging considerably behind the EU average. In-2018, labour productivity in Lithuanian agriculture was by 3.2 times lower than the average in the EU countries. Within the period of 2012–2018, labour productivity in Lithuanian agriculture due to unfavourable natural conditions fluctuated from EUR 6182 in 2018 to EUR 8461 in 2017 (Fig. 1.5). In 2017, the number of employees in Lithuanian agriculture accounted for 6.7% of the total number of the employed, and, compared to 2012, this indicator has declined by 1 percentage point.

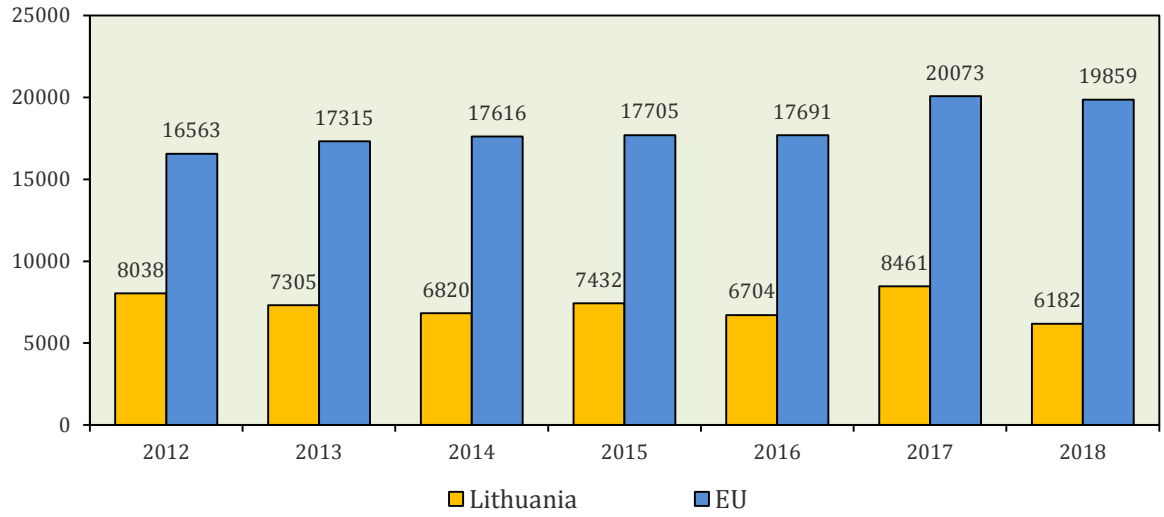


Fig. 1.5. Gross value added per AWU in Lithuanian and EU agriculture in 2012–2018

Source: Eurostat data.

The lower labour productivity indices in Lithuania, compared to the EU Member States, are predetermined by the specificity of farming where some part of rural residents prefer farming as a complementary activity alongside wages received in some other professional areas or old-age pensions. Such part-time farms generate the higher income to their owners and reduce the risk of income loss. According to the 2016 agricultural structure research data, only 13.8% of farmers and their family members worked the full working day on their farms. Even 86.2% of the total number of farming persons gaining income from agriculture worked part time on their own farms, and 23.9% devoted up to 2 hours to this activity. Further self-sufficiency in mechanisms and equipment of small part-time farms is problematic due to the insufficient investing capacity of farms and ability to effectively use the acquired property. To increase labour productivity in part-time farms it is necessary to promote the search for new organisational forms that would allow the more effective use of already available agricultural machinery and equipment and would not increase farm expenditure on depreciation.

The growing production and the reducing number of the employed in agriculture in 2005–2015 determined that according to the growth in total factor productivity Lithuania was one of the leaders, i. e. was ranked second among the EU Member States (EC data). Lithuania's farms have increased their productivity by improving production

management and organisation, creating economies of scale, investing in new technologies, logistics and infrastructure. In 2017 total factor productivity of Lithuanian agriculture reached 132.7% (in 2005 = 100%) (Fig. 1.6).

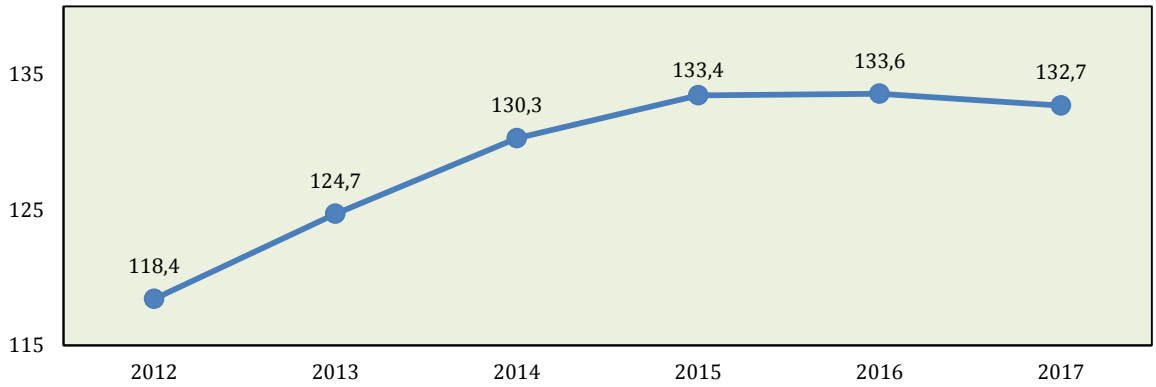


Fig. 1.6. Changes in total factor productivity of Lithuanian agriculture in 2012–2017 (in 2005 = 100%)

Source: EC data.

Attention should be focused to the fact that in 2017, compared to 2016, the above-mentioned indicator got reduced by 0.9 percentage points. This shows that new factors for increasing competitiveness of Lithuanian agriculture should be sought.

2. Gross agricultural production

According to the provisional data of Statistics Lithuania, the gross agricultural production (at current prices) in 2018 amounted to EUR 2.3 billion, i. e. by 9.4% less than in 2017. This was due to the lower purchase prices of a considerable part of agricultural products and a decline in production. Within the entire period under analysis, the crop production comprised the larger portion of the gross agricultural production. This share, however, in 2018, compared to 2017, was lower by 1.5 percentage points (Table 1.3).

Table 1.3. Structure of gross agricultural production* in 2014–2018

Production	2014		2015		2016		2017		2018**	
	EUR mill.	%	EUR mill	%	EUR mill	%	EUR mill	%	EUR mill	%
Total	2450,9	100	2530,4	100	2270,0	100	2534,6	100	2295,4	100
crop production	1456,2	59,4	1678,8	66,3	1465,2	64,5	1570,7	62,0	1388,7	60,5
animal production	994,7	40,6	851,6	33,7	804,8	35,5	963,9	38,0	906,7	39,5

* At current prices.

** Preliminary data.

Source: Statistics Lithuania.

The crop production in 2018, compared to 2017, was lower by 11.6%. This was due to the decreased harvests of grains and rapeseeds (24.3 and 20.2%, respectively). A decrease in crop production was also impacted by the lower prices for fruit and berries as well as rapeseeds (by 44.4 and 0.6%, respectively). Livestock production in 2018, compared to 2017, declined by 5.9% as a result of the decreased purchase prices for pigs, eggs and milk (by 11.1, 6.7 and 5.4%, respectively).

While estimating the gross agricultural production structure by counties, the highest share of crop production in 2017 was found in Šiauliai, Marijampolė and Panevėžys counties (75.7, 69.9 and 67.5%, respectively), and was the lowest in Tauragė, Vilnius and Utena (41.8, 44.1 and 52.4%, respectively). In 2017, compared to 2013, the share of crop production got changed differently: this share increased most of all in Panevėžys and Šiauliai counties (by 7.3 and 5.8 percentage points, respectively), and its highest decline was fixed in Tauragė and Alytus counties (by 7.3 and 1.3 percentage points, respectively).

The volume of gross agricultural production (at constant prices) during the period of 2014-2018 declined mostly in 2018. Its highest increase was in the year 2014. Crop production in 2018, compared to 2017, decreased by 17.0% and livestock production – by 0.5% (Fig. 1.7).

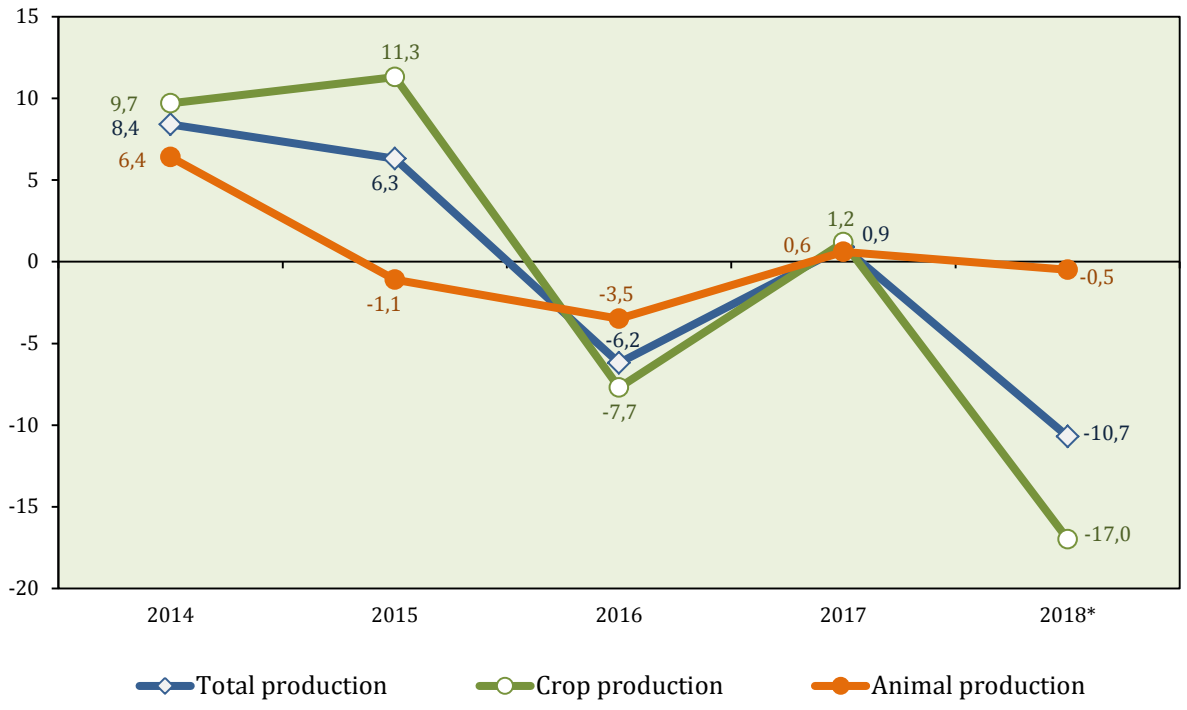


Fig. 1.7. Changes in the volume of gross agricultural production in 2014–2018***, per cent**

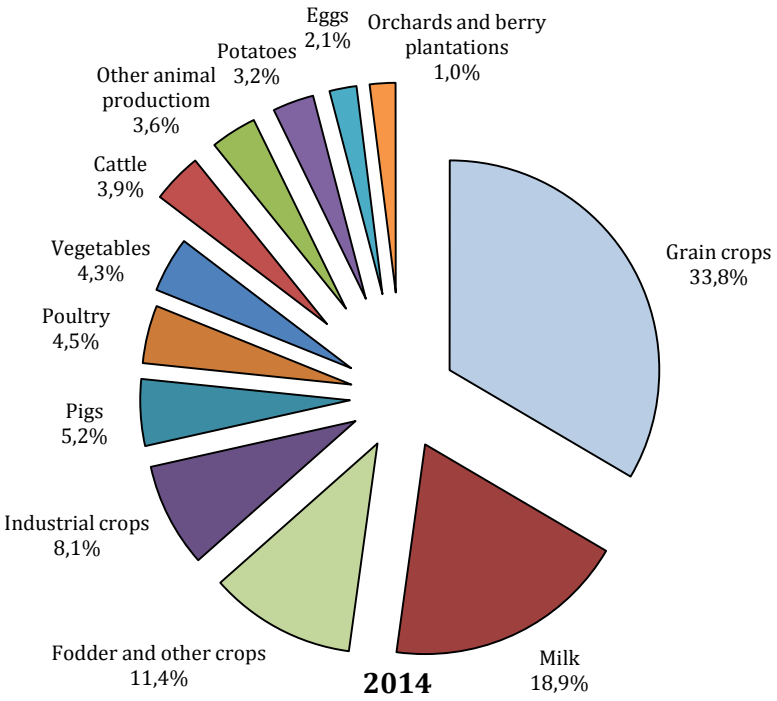
* *Preliminary data.*

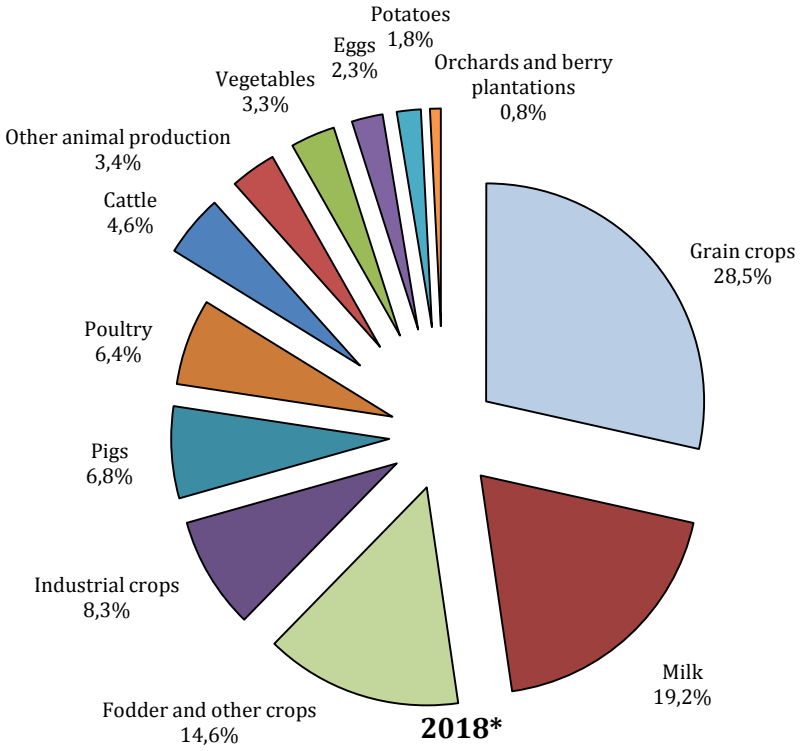
** *At constant prices.*

*** *Compared to the previous year.*

Source: Statistics Lithuania.

The highest share of gross agricultural production in Lithuania in 2014 and 2018 consisted of cereals (33.8 and 28.5%, respectively) (Fig. 1.8).





* Preliminary data.

Fig. 1.8. Structure of gross agricultural production in 2014 and 2018

Source: Statistics Lithuania.

In the structure of gross agricultural production in 2018, compared to 2014, the share of fodder and other plants and poultry increased most considerably (by 3.2 and 1.9 percentage points, respectively), and the share of cereals and potatoes got decreased most significantly (by 5.3 and 1.4 percentage points, respectively). The main reason of negative tendencies in the sector of cereals was unfavourable meteorological conditions in 2018 that resulted in the lower yield of cereals and the area sown under cereals. Changing dietary habits of consumers and insufficient, comparing to other states, potato competitive ability have contributed considerably to negative changes in the potato sector.

The structure of gross agricultural production in the EU countries varies by country. All the EU countries as to their gross agricultural production structure may be subdivided 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, Denmark), the second group includes countries where the share of crop and livestock output is almost alike (e. g., Sweden, Austria), and the third group encompasses countries where crop production is predominant (e. g., Romania, Greece)). It is notable that crop production in Lithuania in 2018, compared to 2014, constituted the gross production share that was lower by 1.1 percentage points. The share of crop production in 2018 was similar to that in Portugal, Slovakia and Croatia (Table 1.4).

Table 1.4. Structure of gross agricultural production in EU countries * in 2014 and 2018

Country	2014			2018		
	crop production, %	livestock production, %	gross agricultural production, EUR/ha UAA	crop production, %	livestock production, %	gross agricultural production, EUR/ha UAA
Ireland	25,2	74,8	1420	23,0	77,0	1651
Denmark	33,8	66,2	3919	34,7	65,3	3582
Finland	36,0	64,0	1778	37,2	62,8	1637
United Kingdom	39,3	60,7	1729	38,6	61,4	1622
Cyprus	41,7	58,3	5630	40,2	59,8	6135
Malta	40,6	59,4	10768	40,7	59,3	10272
Luxembourg	49,0	51,0	3236	42,1	57,9	2999
Belgium	43,0	57,0	5940	44,4	55,6	5861
Estonia	47,5	52,5	813	44,6	55,4	767
Poland	49,7	50,3	1557	44,7	55,3	1679
Germany	50,5	49,5	3338	45,6	54,4	2980
Austria	45,5	54,5	2372	48,0	52,0	2507
Sweden	50,0	50,0	1840	49,1	50,9	1842
Latvia	55,6	44,4	605	56,0	44,0	606
Netherlands	53,4	46,6	13208	56,4	43,6	14008
Slovenia	54,3	45,7	2472	56,4	43,6	2635
Czech Republic	60,7	39,3	1377	58,8	41,2	1402
Portugal	55,8	44,2	1786	59,6	40,4	1948

Country	2014			2018		
	crop production, %	livestock production, %	gross agricultural production, EUR/ha UAA	crop production, %	livestock production, %	gross agricultural production, EUR/ha UAA
Slovakia	59,4	40,6	1135	59,6	40,4	1114
Lithuania	**59,4**	**40,6**	**838**	**60,5**	**39,5**	**785**
Croatia	59,8	40,2	1201	61,8	38,2	1349
France	60,6	39,4	2471	62,6	37,4	2478
Spain	60,5	39,5	1819	62,8	37,2	2222
Hungary	63,5	36,5	1589	62,8	37,2	1755
Italy	63,7	36,3	3595	66,6	33,4	3738
Bulgaria	71,0	29,0	867	73,2	26,8	846
Greece	72,2	27,8	2107	75,0	25,0	2216
Romania	73,6	26,4	1200	76,5	23,5	1451

* Sorted by the 2018 share of crop and livestock production.

Source: Eurostat data.

In Lithuania, gross agricultural production per hectare of UAA in 2018 was among the lowest in the EU. Compared to Denmark where conditions are similar, this indicator was lower more than 4 times. Such results were mostly impacted by the purchase prices for agricultural products that were lower than in other countries. In 2018, the highest gross agricultural production per hectare of UAA was in the Netherlands, Malta, Cyprus, and Belgium. These countries have utilised rationally their natural and industrial resources and selected product production priorities by their competitive advantages and situation on the market.

Comparing the gross agricultural production 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 2018 was by 2.3% higher than in Estonia where livestock production makes a considerably larger share of gross agricultural production.

Procurement amounts of agricultural products have a considerable impact on the volumes of gross agricultural output. Procurement amounts of separate agricultural products over the period of 2014–2018 have changed unevenly: in 2018, compared to 2017, purchase of potatoes was higher by 28.0%, fruit and berries by 26.3%, and vegetables by 11.1%, whereas purchase of rapeseeds was lower by 20.1% and grain by 19.1%. Volumes of all purchased animals and livestock products, except pigs and eggs, in 2018, as compared to 2017, went on decreasing. Purchase of milk decreased by 2.7%, poultry by 1.7%, and cattle by 1.4%.

Other important factor impacting gross agricultural production volumes are the prices for agricultural products and for inputs necessary for their manufacture. Price index variation tendencies for agricultural products and inputs required for their production somewhat differed over the period of 2016–2018. The highest purchase price index on crop production and livestock products and inputs was in 2017. The lowest purchase price index on livestock products was in 2018, and that on crop products and inputs in 2016. Prices for crop products in 2018, compared to 2017, have increased by 7.0%, and those for livestock products and inputs got reduced by 3.5 and 0.5%, respectively. Index variations of these prices during the period of 2016–2018

predetermined the disproportion (the so-called price scissors) between the purchase price for agricultural products and the price of inputs (Table 1.5).

Table 1.5. Price indices* of agricultural production and input in 2016–2018, per cent

Indicators	2016	2017	2018
Price scissors	94,0	108,9	103,0
Purchase price indices of agricultural production			
total	93,3	112,4	102,5
crop production	90,1	107,1	107,0
animal production	98,5	120,3	96,5
Input price index	99,3	103,2	99,5

* Compared to the previous year.

Source: Statistics Lithuania.

Throughout the entire period of 2016–2018, the year 2017 was most favourable for agricultural product producers; compared to the previous year, the purchase prices for agricultural products have increased by 12.4% and for inputs by 3.2%. The year 2016 was the most unfavourable when purchase prices for agricultural products went down by 6.7% and for inputs by 0.7%.

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

Lithuanian agricultural policy is closely linked with the EU CAP. Support for agriculture depends on the EU and Lithuanian agricultural policy strategic goals and the financing opportunities coordinated between the EU Member States. Aiming to achieve the common goals, namely, to maintain the viable agriculture and rural development, to supply the population with food, to preserve the environment and resources, to reduce social exclusion between the rural and urban population, etc., the CAP programmes are constantly being executed. To achieve the implementation of these goals, support is being granted to farmers and rural population from the EU and national budget funds. In 2018, funds allocated for financing of agriculture amounted to EUR 1047.9 million, i. e. by 0.55% more than in 2017 (EUR 1042.2 million), and payments made were by 12.3% lower, amounting to EUR 919.0 million.

The system of direct payments operates like a safety net and enables farming to be made more profitable, contributes to self-sufficiency in food in Europe, stimulates economic entities to manufacture safe, healthy and affordable foodstuffs and compensates farmers for public values. The system of direct payments is the most funded EU CAP support measure, with the Lithuanian budget making its own contribution. The major portion of direct payments is decoupled from production

volumes. Direct payments in Lithuania are allocated to entities engaged in agricultural performance for the declared UAA area, areas under crops and animals. Continuing the provision of support under the Single Area Payment Scheme, in 2018, like in the years of the period under analysis (2014–2018), direct payments in Lithuania were allocated from the European Agricultural Guarantee Fund (EAGF) and from the national budget by allocating the transitional national aid (TNA) payments. In 2018, the share of EAGF funds, allocated for Lithuania's direct payments, accounted for 94.7% (EUR 492.0 million) of the total Lithuania's direct payments; the disbursed amount made EUR 462.6 million (Fig. 1.9). In 2018, compared to 2017, the EAGF allocated share of funds has increased by 5.3%; the disbursed portion by 1.8%. Increase in the disbursed amount was due to the augmented direct payments. The TNA share paid out in 2018 for animals and crop areas declared during the reference period and the current year comprised EUR 27.6 million, i. e. by 40.9% less than in 2017 (EUR 46.7 million).

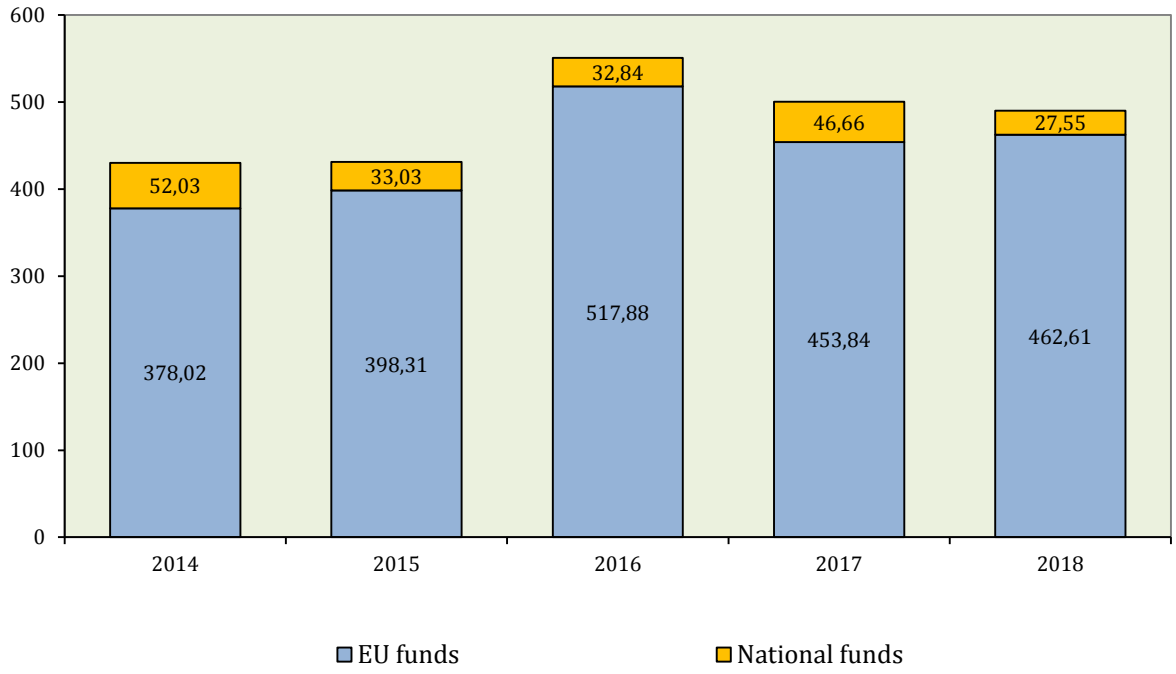


Fig. 1.9. Funds for direct payments in 2014–2018, EUR mill.

Source: Data of National Paying Agency.

As in the previous year, in 2018, according to the CAP for 2014–2020, the increasing financial envelope is foreseen and is intended for direct payments from the EAFG. Owing to this reason, the basic payment, greening payment, payment for the first hectares and payment to young farmers went on increasing in 2018. In 2018, the rate of the basic direct payment, paid to the applicant for UAA areas, was 63.2 EUR/ha, i. e. by 0.64% more than in 2017 (Table 1.6).

In Lithuania, since 2014 payments have been allocated to farmers for the first 30 ha. This support measure makes it possible to give more considerable support to farms with smaller UAA areas. In 2018 the rate of payment amounted to 57.9 EUR/ha, i. e. by 2.8% more than in 2017 (56.3 EUR/ha).

Table 1.6. Direct payment rates paid from the EU budget in Lithuania in 2014–2018

Kind of payment	2014	2015	2016	2017	2018
Basic payment, EUR/ha	114,4	56,7	59,4	62,8	63,2
Payment for the first 30 ha, EUR/ha	30,8	48,8	51,8	56,3	57,9
Young farmer payment, EUR/ha	–	45,8	45,8	45,8	47,9
Greening payment, EUR/ha	–	44,9	46,6	49,2	49,8
Coupled payments for areas of:					
vegetables grown in heated greenhouses, EUR/a*	–	527,0	453,4	208,7	208,2
protein crops, EUR/ha	–	83,5	60,1	42,0	50,1
fruit and berry plantations, EUR/ha	–	207,4	230,3	225,6	227,5
field vegetables, EUR/ha	–	324,2	310,9	381,8	344,2
sugar beet, EUR/ha	–	–	–	81,2	94,4
areas sown under certified cereal seed, EUR/ha	–	–	–	17,9	14,2
seed potatoes, EUR/ha	–	–	–	585,1	406,5**
Coupled support for animals:					
dairy breed cows payment, EUR/head	–	80,0	91,0	101,9	107,3
beef cattle payment, EUR/head	86,5–109,8	108,8	94,0	91,3	91,7
dairy breed bulls payment, EUR/head	–	76,8	68,8	78,9	87,5
sheep (meat breeds) payment, EUR/head	6,3–11,1	13,4	10,7	10,5	10,8
dairy female goats payment, EUR/head	–	41,4	20,7	23,4	23,8

* are = 0,01 ha.

** Preliminary rate.

Source: Data of the Ministry of Agriculture of the Republic of Lithuania.

The greening payment was also allocated in 2018 for the more favourable agricultural performance in terms of environment; its rate in Lithuania amounted to 49.8 EUR/ha, i. e. by 1.2% more than in 2017

From 2015 complementary direct payments for young farmers were allocated. Direct payments of this type were allocated to contribute to retaining young people in the rural regions. In 2015–2017 the rate of complementary direct payments in Lithuania allocated to young farmers amounted to 45.8 EUR/ha; however, in 2018, after correction made to the funding of the direct payment system, direct payments to young farmers increased to 47.9 EUR/ha, i. e. by 4.6% more than in the previous year.

In Lithuania quite of importance for agriculture are direct payments relating to production volumes. The coupled support from the EAGF funds is allocated for cultivation of vegetables, except potatoes, in closed (heated greenhouses) and open ground, as well as for growing of fruit, berries and protein crops, for dairy cows, beef cattle and sheep of meat breeds, bulls of dairy breeds, and dairy goats. Since 2017 payments have been also allocated for areas where sugar beets are cultivated – 94.4 EUR/ha (in 2017, 81.2 EUR/ha), for cultivation of potatoes for seed – the preliminary rate of payment in 2018 was 406.5 EUR/ha (in 2017, 585.1 EUR/ha), for crop areas sown with certified seed – 14.2 EUR/ha (in 2017, 17.9 EUR/ha).

In 2018, the coupled payment in Lithuania for cultivation of protein crops amounted to 50.1 EUR/ha, i. e. by 19.3% less than in 2017; for growing of vegetables grown in heated greenhouses 208.2 EUR per are (in 2017, 208.7 EUR per are). An insignificant increase was due to two factors: general financial direct payment increase and decreased areas of protein plants, namely peas. The coupled payment for growing of field vegetables (except protein ones) in 2018 reached 344.2 EUR/ha (in 2017, 381.8 EUR/ha); for fruit and berries it was 227.5 EUR/ha, i. e. by 0.8% more than in 2017.

Farms in the trend of livestock production were supported by allocating the coupled payment per dairy cow amounting to EUR 107.3, i. e. by 5.3% more than in 2017 and even by 34.1% more than in 2015 (EUR 80.0); beef cattle head EUR 91.7 (in 2017, EUR 91.3); per sheep of meat breeds EUR 10.8 (in 2017, EUR 10.5), per dairy bull EUR 87.5 (in 2017, EUR 78.9); per dairy goat EUR 23.8 (in 2017, EUR 23.4).

The afore-mentioned annual fluctuations in the coupled payment rates depend on the number of units eligible for support. The number of eligible units, higher than in 2014 (and in 2016) and approved by the EC, conditioned the lower rate of payment.

The transitional national aid funds were also allocated for direct support of farms in the trends of crop production and livestock breeding. Without prejudice to the TNA payment procedure, coordinated with EC, and in consideration of the TNA funding limits permissible for separate sectors and the available reserve of funds, the TNA payments in 2018 for quota milk decreased most considerably, amounting to 14 EUR/t (in 2017, 15.3 EUR/t) (Table 1.7).

Table 1.7. Transitional national aid (TNA) payment rates in Lithuania in 2014–2018

Kind of payment	2014	2015	2016	2017	2018
TNA payments* for production of:					
protein crops, EUR/ha	13,0	13,0	23,4	23,4	23,4
fibre flax, EUR/ha	44,0	–	–	–	–
suckler cows and heifers, EUR/head	87,0	105,0	111,1	111,1	111,0
bulls, EUR/head	173,0	205,0	212,2	212,2	212,0
ewes, EUR/head	5,8	4,4	4,1	3,15	3,1
quota milk, EUR/t	15,1	16,0	15,7	15,3	14,0

* Total sum of coupled and decoupled payments.

Source: Data of the Ministry of Agriculture of the Republic of Lithuania.

The TNA payment rates for ewes, suckling cows, heifers and bulls have reduced at the minimum (from EUR 0.05 to 0.2). In 2018, the TNA payment for protein plants was alike to that in 2016 and 2017 (23.4 EUR/ha).

According to the data of NPA, by the end of the year 2018, EUR 415 million of direct payments were transferred into accounts of 124 thousand applicants who declared their areas. This was the highest amount of direct payments in NPA history that was paid by the end of the year.

Market regulation measures. In Lithuania, the agri-food product market regulation measures have been applied for just 20 years. They are targeted to assure the market balance of agricultural and food products and to bolster the manufacturers' income. The key measures cover the intervention purchase, storage and sale of grain, butter, skimmed milk powder and beef meat from intervention warehouses. The market regulation measures also are encompassing support being granted for private storage of cheeses, butter, skimmed milk powder, white sugar, beef meat, pig meat, 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 being granted for consumption of milk and milk products in educational establishments, and the programme for promoting fruit consumption at schools is being implemented, etc.

To improve the nutrition of children and juveniles, to promote the consumption of dairy products on the internal market and to diminish the market disbalance of dairy products, the support programme "Milk for Children" has been implemented in Lithuania since 2004. In 2018, the support programme "Milk for Children" measure was used by 1578 educational establishments, where 236.9 thousand children were eligible for support, i.e. by 6.4% more than in 2017 (222.7 thousand).

For implementing this measure in 2018, EUR 2.9 million was disbursed (of which the EU share accounted for 35.8%), by 6.5% less than in 2017 (EUR 3.1 million). Most active participants were municipalities of Lazdijai district, Neringa, Vilnius city, Kaunas city and district, Panevėžys district, Panevėžys city, Anykščiai district, Ignalina district, Alytus city, Biržai district, Šiauliai city, Mažeikiai district, and Telšiai district. In 2018 most popular products were drinking milk of different fat content, natural yogurt, yogurt with flavours, fresh cottage cheeses, and cheese sticks.

In the school year 2017–2018, EUR 1143.4 thousand of support funds (excluding VAT) were allocated from the EU and national budget funds for promoting the programme for fruit consumption in children's educational establishments. In 2017 the disbursed support amount made EUR 1526.7 thousand, of which the national budget funds comprised EUR 397.7 thousand. Aiming to use effectively the funds granted for the programme, from October 1, 2017 the limit of the monthly funds per child has been approved and as compared to the 2016–2017 school year got reduced by EUR 0.24 and made EUR 0.96 without VAT. Carrots, apples, pears and apple, pear, carrot, currant, strawberry, raspberry and chokeberry juices and their mixes were distributed free to preschool children and primary schoolchildren. The programme involved 102 applicants: 48 suppliers supplied their products to 1528 educational establishments, and 54 educational establishments participated in the programme independently. The programme covered the participation of 225.7 thousand children. From 2018 the temporary complementary support has been suspended to groups of fruit and vegetable producers for withdrawal from the market of products and non-harvesting. However, when in 2017 Lithuania faced the abundant precipitation, support was granted from the EU budget funds for winter crops sown in 2017 that perished as a result of precipitation and (or) that due to this they could not be sown. Under this measure in 2018 the support funds amounting to EUR 9084.3 thousand were paid out from the EU budget.

In 2018, export in Lithuania was actively promoted by providing support to trademarks, popularising regional products and export of products manufactured in Lithuania by electronic communication means, presenting products of Lithuanian origin at international exhibitions, etc. According to the support scheme intended for information and sales promotion actions of agricultural products on the domestic market and in third countries, in 2018 EUR 1886.8 thousand was paid, including EUR 1540.7 from the EU funds.

In 2018, services for private storage of agricultural and food products have not been used. For intervention it was possible to sell butter, skimmed milk powder and grain. In 2018, for intervention purchases (skimmed milk powder) EUR 329.9 thousand, by 18.2% more than in 2017 (EUR 279.0 thousand), was spent. All expenses for intervention purchases were 100% funded from the EU budget funds.

In 2018, EUR 16.2 million was spent in total for funding of market regulation measures in Lithuania, i.e. by 8.7% more than in 2017 – EUR 14.9 million, but less as compared to 2014–2016 (Fig. 1.10).

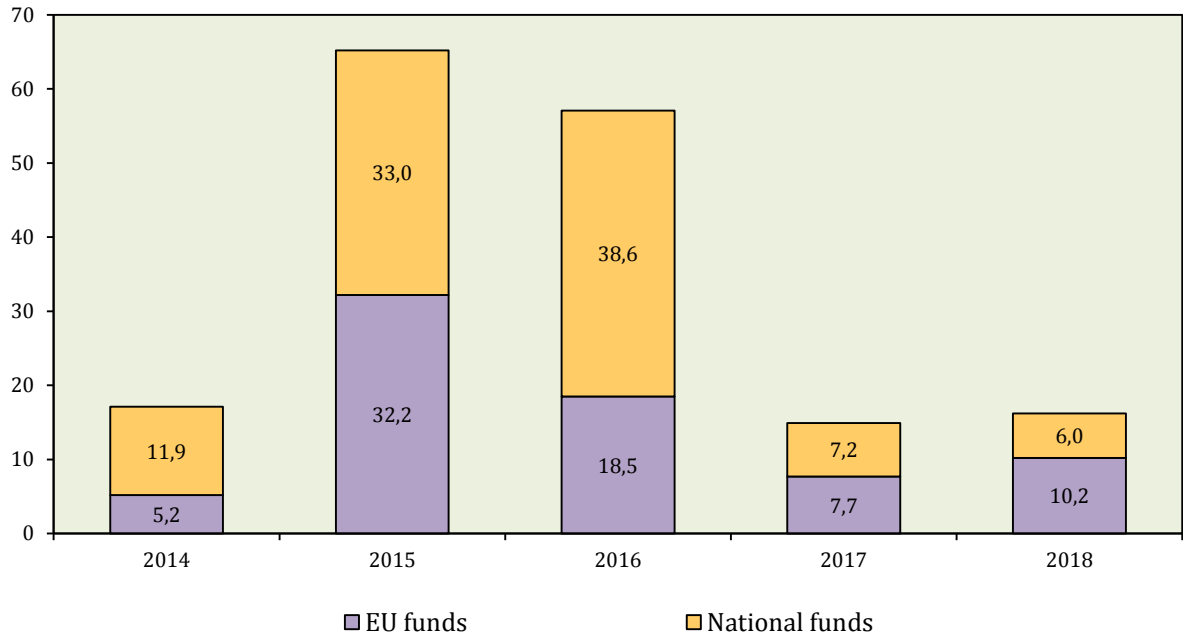


Fig. 1.10. Funds for market regulation measures in 2014–2018, EUR mill.

Source: Data of National Paying Agency.

Due to embargo placed by the Russian Federation on dairy product imports, abolition of milk quotas since 2015 and the especially complicated situation on the global market, Lithuania in 2015–2016 sought complex measures for support of dairy farms, making use of all possible EU market regulation measures and maximum permissible national aid. In 2015–2016, the special support was foreseen to milk producers who suffered losses from Russia's import embargo and the provisional exclusive support to milk producers.

In 2018, an increase in the expenditure on market regulation measures was owing to the increased costs for transactions, related to intervention product purchase.

In 2018 the EU budget funds for market regulation measures comprised EUR 10.2 million; the national budget funds EUR 6.0 million, or 37.0% of the total funds. The major portion of financial resources for market regulation measures in the period under study was allocated in 2015.

Rural development measures. The Lithuanian Rural Development Programme (RDP) for 2014–2020, under which investment and compensatory support was allocated to agriculture and rural areas, has come to the halfway point (2018). This year calls for submission of applications under the RDP 2014–2020 programme were organised very intensively – within the past year the applicants could submit their applications even 28 times for the major part of programme measures and their activities.

As in the previous year, in 2018, the major part of applications was submitted under the measure "Payments to farmers in areas facing natural or other specific constraints" (around 74.5 thousand applications). According to this measure, in 2018 EUR 55.4 million was requested, i. e. by 15.2% less than in 2017. Other area-related compensatory measures "Agri-environment and climate" (6.8 thousand applications submitted), "Organic farming" (2.4 thousand applications), "Natura 2000 payments and Payments related to the Water Framework Directive" (4.1 thousand applications) also enjoyed popularity in 2018.

The most substantial support was paid under the measure "Investments in Tangible Assets" (the major share to investments into agricultural holdings). Under this measure in 2018 support was requested for more than EUR 86.1 million (of which EUR 78.7 million for the activity "Support for investments into agricultural holdings", i.e. by 2.3 times more than in 2017), and EUR 77.1 million was disbursed, of which EUR 55.6 million according to the activity "Support for investments into agricultural holdings" (less by half than in 2017 – EUR 99.7 million (Fig. 1.11).

In 2018 measures for business in rural areas have gained strong interest. Under the activity "Support for starting of economic activities in rural areas" where the amount of support was up to EUR 40 thousand, 590 applications were received, and under the activity "Support for starting of economic activities in rural areas" where the support amount was up to EUR 16 thousand, 452 applications for support were submitted. Support for creation and development of business in rural localities was also one of the most popular this year – under the measure activity "Farm and business development". According to the measure "Support for investments that serve to create and develop non-agricultural activities" 120 applications were received and the requested amount of support was EUR 17.8 million.

In 2018, 2539 applications were received under the RDP measure "Farm and business development", i. e. 2.1 times more than in 2017 (1211 applications), even though the approved applications accounted only for 50.6% (in 2017, 75.9%). In total, under this measure in 2018 EUR 58.4 million was requested (in 2017, EUR 41.1 million), the amount of EUR 9.9 million was approved (in 2017, EUR 20.5 million), and EUR 17.0 million was disbursed (in 2017, EUR 21.7 million). Attention should be drawn to the fact that under the activity "Support for setting up of young farmers" of the above-mentioned measure no calls for collection of applications were announced in 2018; however, agricultural entities

were invited to take part in the activity "Support for small farms", and 667 applications were received.

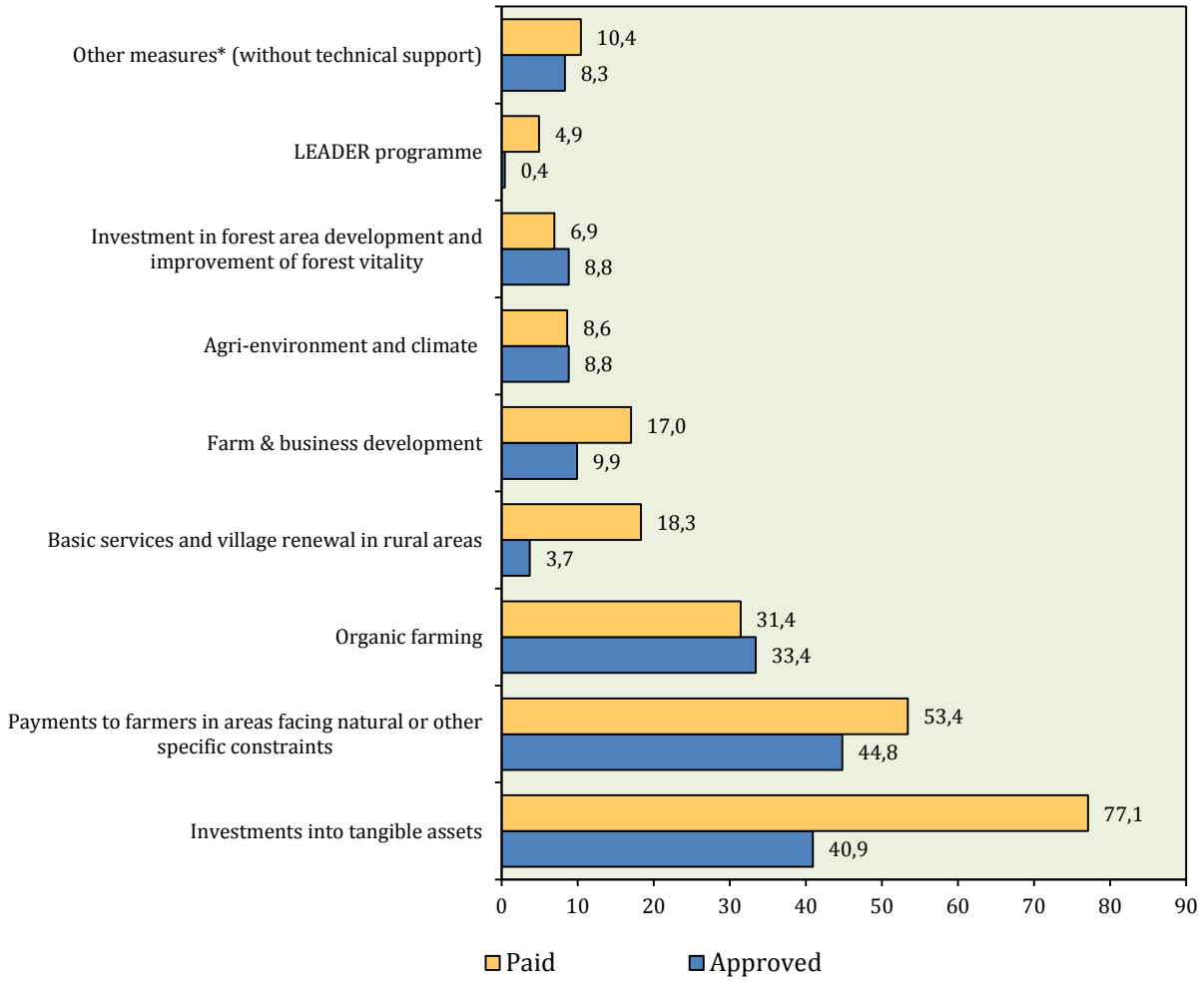


Fig. 1.11. Funds for rural development measures approved and paid in 2018, EUR mill.**

* Other measures – Knowledge transfer and information activities; Natura 2000 payments and Payments related to the Water Framework Directive; Cooperation; Risk management, etc.

** Including funds not paid in the previous year.

Source: Data of National Paying Agency.

In 2018, as in the previous year, the measure "Organic farming" was also popular. In 2018, 2357 applications were received (in 2017, 2759 applications), support of EUR 40.0 million was requested (in 2017, EUR 43.5 million). A total of EUR 31.4 million was paid in 2018 under the measure "Organic farming", i. e. by 36.6% million less than in 2017.

As in the previous year, in 2018, the population could also receive support by applying to the local action groups (LAG), based in regions. In total, local strategies in Lithuania are being implemented by 49 LAG and support amounting to EUR 88.4 million was allocated for implementing the local projects during the period of 2014–2020. These funds could be used by LAG in implementing their strategic goals. Encouraging the community-initiated local development, 17 applications were submitted in 2018

under the area of activity "Development and implementation of LAG cooperation projects" of the "LEADER" measure (amounting to EUR 949.8 thousand), of which 9 were approved (EUR 437.0 thousand). In total, in 2018, support of EUR 4.9 million was disbursed under the "LEADER" measures.

A total of 105.8 thousand of applications were received in 2018 under RDP measures, i. e. by 2.6% more than in 2017 (103.1 thousand). Support requested by all applications collected in 2018 amounted to EUR 291.8 million (by 8.9% more than in 2017), and EUR 248.0 million was paid (including technical assistance measures), i. e. by 24.5% less than in 2017 (EUR 328.5 million).

State aid. To develop the competitive agri-food sector, to improve agricultural production and food product quality, to encourage scientific research, know-how transfer, advisory and information activities, the State aid measures are being implemented in Lithuania. The funds from the national budget are allocated for implementing the measures referred. In 2018, the State aid measures related to development of biofuels production, compensation of losses that agricultural entities have suffered due to heavy rainfall, the reimbursement of part of insurance premiums, pedigree livestock breeding, acquisition of pedigree animals, treatment of animal by-products, certified products of national heritage preservation, production, promotion and marketing of quality agri-foods, agricultural advisory services, interest compensation, implementation of applied and international research, knowledge transfer and information actions, etc. were funded.

Traditionally the major portion of the State aid funds in 2018 was disbursed under the measure "Support for development of biofuels production" – EUR 9.4 million (29.7% of the total funding of the State aid measures in 2018), i. e. almost the same as in 2016 – EUR 9.5 million, though by 37.9% less than in 2017 (EUR 15.1 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 rapeseed oil and dehydrated ethanol.

In the summer of 2017 the amount of precipitation higher than the average for that period was established in Lithuania, as a result of which a considerable part of harvest suffered losses and extreme situations were announced at a level of municipality. In 2018, aid was granted to agricultural entities that suffered losses in 2017 resulting in perishing of agricultural plants due to the abundant precipitation. Under this State aid measure, the aid of EUR 9.1 million was paid in 2018.

In 2018, encouragement of farmers was continued in Lithuania to breed high-valued pedigree animals and to improve their pedigree qualities as well as to enhance the animal productivity. During 2018, 10.6% of all the funds foreseen for the State aid measures was allocated to the State aid measure "Support for livestock breeding", i. e. EUR 3.3 million (by 5.3% less than in 2017). In 2018, under the State aid measure "Support for purchase of pure-bred farm animals" EUR 1.1 million was disbursed, i. e. by 12.4% more than in 2017 (EUR 982.3 million).

In order to utilise dead animal carcasses and to suffer as less losses as possible, agricultural entities are active in using the State aid measure "Support for treatment of animal by-products not intended for human consumption". In 2018, almost EUR 2.9 million, or 9.3% of the funds foreseen for funding of the State aid measures, was disbursed under this measure (in 2017, EUR 2.6 million).

Farmers in 2018, like in the previous year, made use of the crop insurance services. In 2018, under the State aid measure "Support for reimbursement of insurance premiums" EUR 1.3 million was disbursed from the State budget funds, i. e. by 14.8% less than in 2017 – EUR 1.5 million. Even though this amount goes on decreasing each year, crop and plant insurance premiums have been compensated from the EU budget fund granting support under the activity "Insurance premiums for crops, animals and plants" of the RDP measure "Risk management". In 2018, EUR 1.5 million of aid was allocated for this purpose.

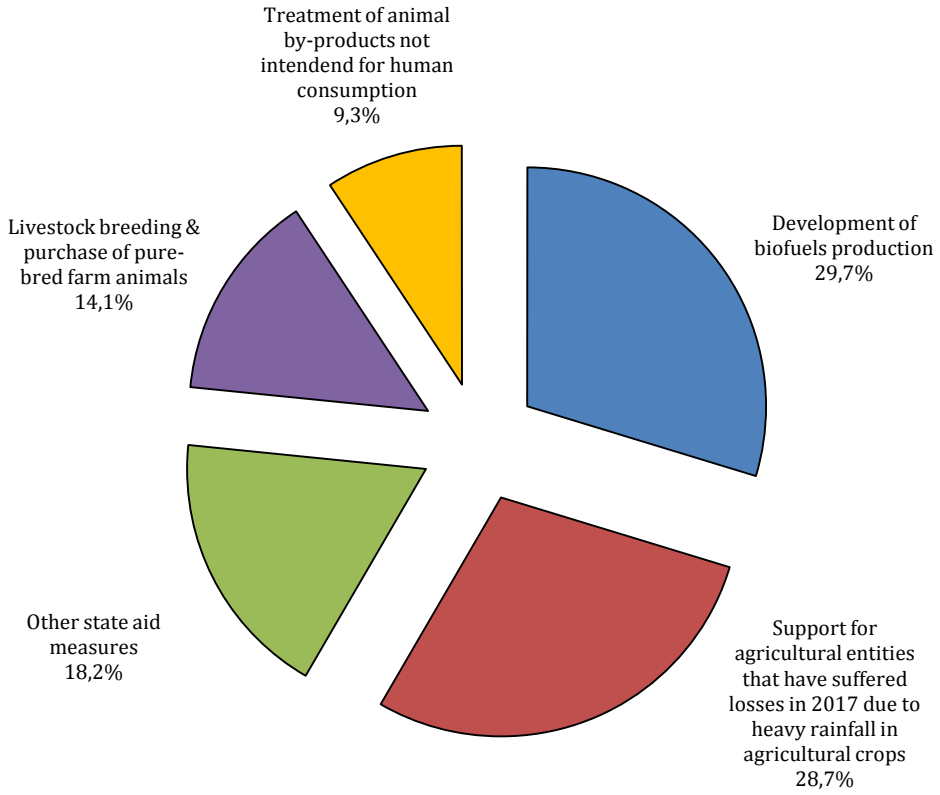


Fig. 1.12. Structure of state-financed measures in 2018

Source: Data of the Ministry of Agriculture of the Republic of Lithuania.

In 2018, for carrying out all State aid measures, EUR 31.5 million was paid, i. e. by 10.0% more than in 2017 (EUR 28.6 million). Such enhancement in the funds disbursed that were intended for funding the State aid measures was determined by the obligations that remained after executing of different State aid measures and complementary support to the agricultural entities that slaughtered pigs or/and refused to breed them.

The State aid measures in 2018, like in the previous year, have contributed to the implementation of goals that are aimed to be achieved by agricultural production manufacturers.

4. Economic entities in agriculture and manufacture of food products

Agricultural entities. According to AIRBC data, the number of agricultural entities who declared UAA by categories got changed unevenly during the period of 2014–2018: the number of agricultural companies and other agricultural enterprises increased by 3.2%, while the number of farms owned by natural persons decreased by 10.1% (Table 1.8). These tendencies are continuing throughout the entire reference period.

Table 1.8. Number of agricultural entities who declared agricultural area in Lithuania in 2014–2018

Agricultural entities	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Agricultural companies and enterprises	938	1012	1016	1002	968	3,2
Farms of natural persons, thou.	141,5	137,9	135,9	129,6	127,2	-10,1

Source: Data of the Simplified Direct Payments Information System, AIRBC.

The average size of a farm by the UAA area declared by all agricultural entities in 2018 in Lithuania was 22.7 ha (Table 1.9), i.e. by 2.3% larger than in 2017 and by 14.1% larger than in 2014. In total, the number of farms declared by the agricultural entities in 2018 was by 1.9% lower than in 2017, and their declared area increased by 0.6%. Even though in 2018, as in the previous year, farms with UAA up to 5 ha constituted around half of the farms who declared UAA, their number, however, if compared to the previous year, decreased by 2.4%. The number of such farms as compared to 2014 got reduced by 10.2 thousand, or by 14.5%. A group of farms with 5.1–10 ha went on reducing every year. Within the reference period, the number of farms in this group reduced by 12.5%, whereas their part in the structure has changed insignificantly. The number of farms in the group of farms from 10.1 to 20 ha has dropped by 4.8%. In the period under analysis the number of farms in the farm groups with 50.1–100 ha and 100.1–500 ha has increased (by 5.7% and 13.3%, respectively). In the group of farms that declared more than 500 ha any changes were absent.

The declining number of farms was due to several factors. Part of the senior farmers retreated from the commodity agricultural production. Moreover, some farmers refused to declare areas because of the stringent agrarian and environmental requirements.

Table 1.9. Structure of farms by declared agricultural area in Lithuania in 2014–2018

Farm size, ha	2014		2015		2016		2017		2018	
	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %
≤ 5	70,2	49,2	66,7	48,1	65,3	47,7	61,5	47,1	60,0	46,8
5,1–10	31,2	21,9	30,3	21,8	29,7	21,7	28,0	21,4	27,3	21,3
10,1–20	18,7	13,2	18,7	13,5	18,8	13,7	18,1	13,8	17,8	13,9
20,1–50	12,0	8,4	12,4	8,9	12,2	8,9	12,0	9,2	11,7	9,2
50,1–100	5,3	3,7	5,6	4,0	5,6	4,1	5,6	4,3	5,6	4,4
100,1–500	4,5	3,2	4,6	3,3	4,9	3,6	5,0	3,8	5,1	4,0
> 500	0,5	0,4	0,5	0,4	0,5	0,4	0,5	0,4	0,5	0,4
All farms	142,5	100,0	138,9	100,0	137,0	100,0	130,6	100,0	128,1	100,0
Average farm, ha	19,9		20,6		21,2		22,2		22,7	

Source: Data of the Simplified Direct Payments Information System, AIRBC.

According to the Eurostat 2017 UAA structure of farms in the EU Member States, the major part of crop areas was in Denmark (57.1%), Poland (51.6%) and Hungary (45.1%). This part in Lithuania reached 43.0%. Crops constituted the smallest part in Ireland (6.1%) and Portugal (6.2%). It should be noted that crops are not cultivated at all in Malta. Analysing the share of legume crops in the UAA structure, one can see that it is highest in Lithuania making 8.9%, Estonia 6.6%, and Latvia 3.0%. Legume crops in the UAA structure in other EU countries comprised just up to 2.0%. Areas sown under root vegetables (potatoes, sugar beets and other beets) were largest in the Netherlands (14.2%), Belgium (12.0%) and Malta (7.1%). In Lithuania root vegetables accounted for 1.4% of the UAA. The largest share of technical crops was in Bulgaria (23.3%), Hungary (21.0%) and Slovakia (15.8%). Plants for green mass and silage constituted the major part in Malta, Cyprus and Sweden, correspondingly, 50.3, 39.0 and 37.5%. In Lithuania such crop areas accounted for 8.0%. Vegetables in UAA structure made the major portion in Malta (17.1%), the Netherlands (5.4%) and Belgium (4.3%). In the majority of other countries this share reached up to 1.5% (in Lithuania 0.4%). Fallow land is most significant in Cyprus (13.8%), Spain (12.5%) and Finland (11.2%). Pastures in many countries constituted at least one third of the UAA used (in Lithuania 27.0%), whereas the major portion belonged to Ireland (90.1%), the United Kingdom (65.0%) and Slovenia (56.6%) (Table 1.10).

Table 1.10. The structure of utilised agricultural area in the EU countries in 2017, per cent

Country	Cereals	Leguminous crops	Root crops	Industrial crops	Plants harvested green	Vege tables	Fallow land	Meadows and pastures	Perma nent crops	Orchards and berries
Belgium	22,8	0,3	12,0	2,1	20,2	4,3	0,7	34,9	1,4	1,3
Bulgaria	36,1	1,5	0,3	23,3	3,2	0,7	3,1	27,3	2,9	1,6
Czech Republic	38,5	1,2	2,6	14,0	13,2	0,3	0,7	27,8	1,2	0,5
Denmark	57,1	0,8	3,3	7,0	19,2	0,6	1,5	9,2	1,1	0,2
Germany	37,5	1,1	4,0	8,4	16,5	0,8	1,9	28,2	1,2	0,4
Estonia	33,3	6,6	0,4	8,6	17,2	0,3	1,3	31,6	0,4	0,3
Ireland	6,1	0,3	0,5	0,3	2,5	0,1	0,1	90,1	0,0	0,0
Greece	15,9	2,4	0,5	7,5	5,4	1,4	2,7	38,4	23,2	2,6
Spain	24,4	2,1	0,5	3,8	4,7	1,6	12,5	26,6	19,7	4,1
France	32,2	1,2	2,4	8,2	17,2	0,8	1,7	32,0	3,6	0,7
Croatia	30,4	0,2	2,0	12,3	6,6	0,6	1,4	39,9	4,7	1,9
Cyprus	16,1	0,3	3,3	0,1	39,0	2,2	13,8	1,3	20,1	3,8
Latvia	36,2	3,0	1,2	6,3	15,4	0,4	3,9	32,8	0,4	0,4
Lithuania	**43,0**	**8,9**	**1,4**	**6,9**	**8,0**	**0,4**	**2,5**	**27,0**	**1,0**	**0,9**
Luxembourg	21,3	0,5	0,6	2,8	21,9	0,1	0,2	51,3	1,2	0,1
Hungary	45,1	0,4	0,7	21,0	7,4	1,7	3,7	15,0	3,3	1,7
Malta	0,0	0,0	7,1	0,0	50,3	17,1	10,7	0,0	11,7	3,1
Netherlands	9,3	0,2	14,2	0,5	26,2	5,4	0,4	40,4	2,2	1,2
Austria	29,1	0,9	2,5	6,1	8,5	0,7	1,9	47,3	2,5	0,5
Poland	51,6	1,8	3,8	6,8	7,0	1,5	1,1	21,5	2,6	2,3
Portugal	6,2	0,5	0,6	0,5	9,1	1,2	6,7	49,7	20,4	5,1
Romania	38,6	0,9	1,5	13,3	6,5	1,1	1,7	32,9	2,4	1,0
Slovenia	19,3	0,3	0,7	2,7	11,2	1,1	0,3	56,6	5,7	2,1
Slovakia	38,6	0,7	1,6	15,8	11,8	0,4	2,4	27,5	1,0	0,3
Finland	42,1	1,5	1,5	4,2	37,3	0,7	11,2	1,1	0,2	0,2
Sweden	33,4	1,9	1,9	4,0	37,5	0,4	5,5	15,2	0,1	0,1
United Kingdom	18,2	1,3	1,7	3,4	7,9	0,7	1,4	65,0	0,2	0,2

Source: Eurostat data.

According to the AIRBC data, at the end of 2018, a record of 158.3 thousand agricultural holdings (further holdings) was held in the Register of Holdings. This is by 5.2% less than in 2017. Reduction in the number of holdings was owing to the fact that since 2011 at the beginning of each year the holdings not complying with the statutory requirements are selected and deregistration of the holdings, the data thereof has not been renewed within the past three years, is initiated. With the number of holdings dropping, the land area of holdings held by the owners also decreased (4.0%), in 2018, as compared to 2017, up to 2.91 million ha of the total land area. The UAA area of

holdings decreased during the year by 4.5% and reached 2.33 million ha. The average size of a holding in 2018 by total holding area constituted 18.4 ha (in 2014–2018 increased by 21.9%), by UAA – 14.8 ha (within the reference period increased by 18.4%). As in the previous year, even 72.2% of all the holdings were up to 10 ha, and holdings, exceeding 50 ha, accounted for 6.4% (Fig. 1.13).

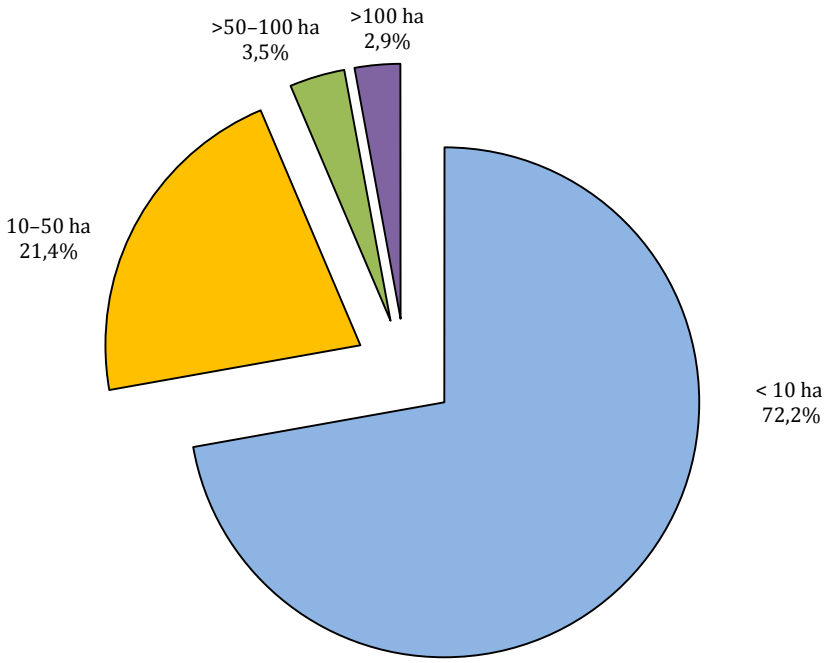


Fig. 1.13. Distribution of agricultural holdings by size group in Lithuania in 2018, per cent

Source: Data of Agricultural and Rural Business Registry by the, AIRBC.

About a half of the total land area is held by the owners of registered farmers' farms – 73.2% of the owners of all holdings. At the end of 2018, as compared to 2017, the number of registered farmers' farms decreased by 5.5% – to 115.8 thousand, comparing to 2014, by 4.1%. As the number of registered farmers' farms decreased, the average size of the farm increased by 11.7% and reached 10.5 ha. In the 2018 registered farmers' farm structure, farms with 5 ha of land prevailed (60.9%). Farms with 5 to 10 ha constituted 15.7% and those from 10 to 50 ha – 19.7%. The largest farms with over 50 ha accounted for 3.7% of the total farmers' farms.

Less than half (46.4%) of all registered farmers in 2018 were in the group from 41 years until the retirement age. The share of young farmers (under 40) comprised 14.8%, and at the age of retirement 38.8% (Fig. 1.14). With the drop in the total number of registered farmers, the structure by age got changed as well. As compared to 2014, growth was found only in the group from 41 years to the retirement age– 3.2%. The number of young farmers decreased by 15.5%, and that of farmers at the age of retirement went down by 9.2%.

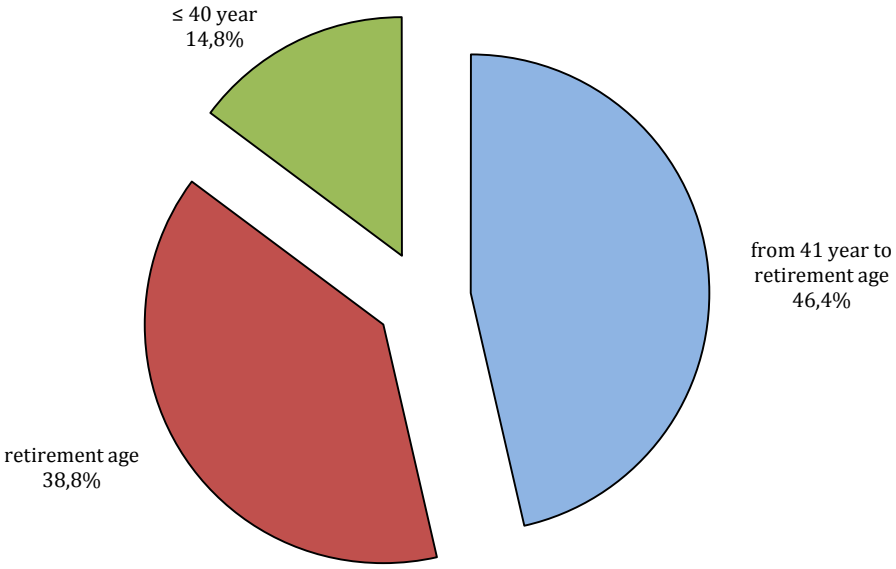


Fig. 1.14. Distribution of registered farmers by age in Lithuania in 2018, per cent

Source: Data of the Register of farmers' farms by the, AIRBC.

In Lithuania the certified organic production area in 2018 covered 244.3 thousand ha. During the period of 2014–2018 the certified area increased by 45.6%, and the number of persons engaged in farming reduced by 0.3%. In 2018, as compared to 2017, the certified area increased by 2.2%, the number of farms decreased by 1.7% (Fig. 1.15). The average size of the certified farm (including fisheries farms) in 2018, as compared to 2017, increased from 95.9 ha to 99.8 ha. 43.70% of all organic farms kept animals and poultry, mostly cattle (58.0 thousand heads), sheep (24.2 thousand), and poultry (16.7 thousand). As compared to 2017, the number of certified poultry increased by 23.7%, whereas the number of certified sheep dropped by 10.0%, and the number of cattle did not change.

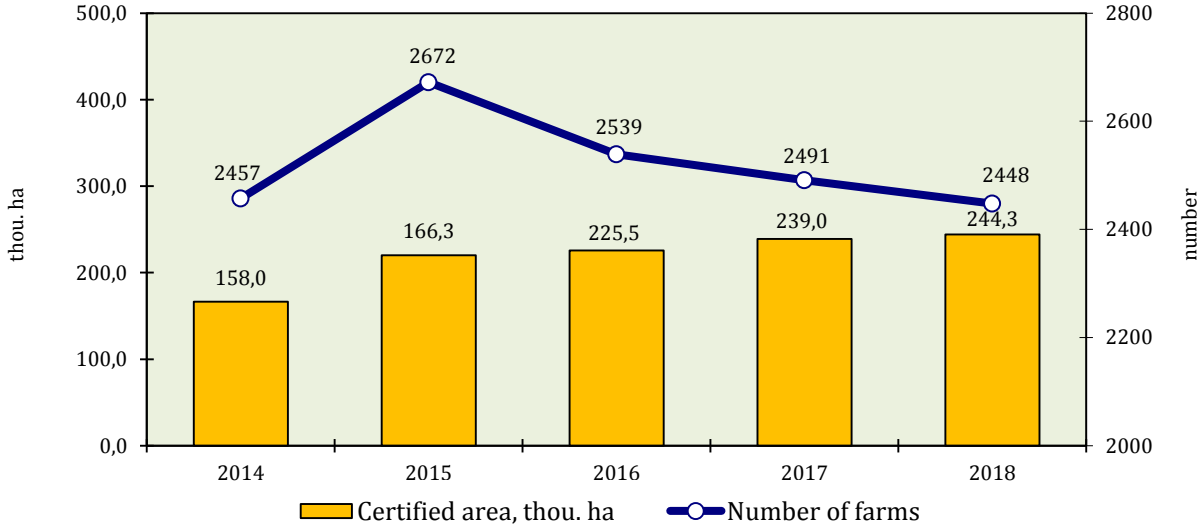


Fig. 1.15. Number of organic farms and certified area in Lithuania in 2014–2018

Source: Data by the certification body „Ekoagros".

The share of organic areas in UAA is close to the average in EU. These areas in Lithuania in 2017 accounted for 8.0% of UAA; in the EU, on the average, 7.0%. The major part of organic areas in the year in question was in Austria, Estonia and Sweden, respectively, 23.4%, 19.6% and 19.2% (Fig. 1.16). In 2017, as compared to 2013, the share of organic areas increased mostly in Austria – by 5.0 percentage points, Italy by 4.3 percentage points, and in Estonia and Latvia, respectively, by 4.0 percentage points in each.

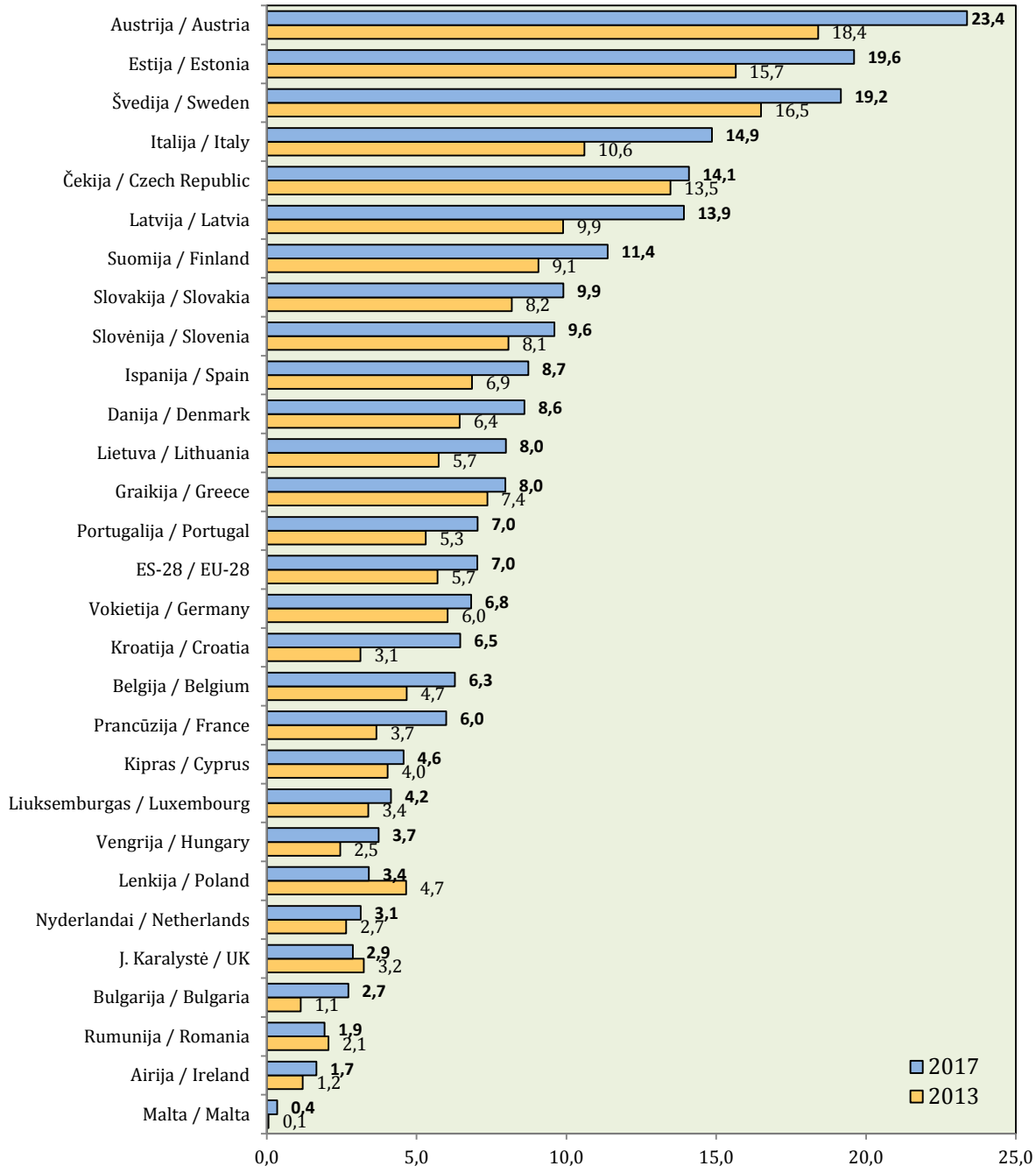


Fig. 1.16. Share of organic area in total UAA in EU countries in 2013 and 2017, per cent

Source: Eurostat data.

Enterprises of manufacture of food products and beverages. At the end of 2018, 969 enterprises engaged in the manufacture of food products and beverages operated in Lithuania. 15.4% of all enterprises were individual. During the period of 2014–2018 the total number of enterprises decreased by 0.2%, and that of individual companies by 1.77% (Fig. 1.17). According to the data of Statistics Lithuania, in 2017, 612 natural persons with business certificates were involved in the manufacture of food products. As compared to 2014, their number got increased by 2%. The turnover generated by these persons in 2017 constituted 0.2% of the total turnover of the enterprises engaged in food manufacture.

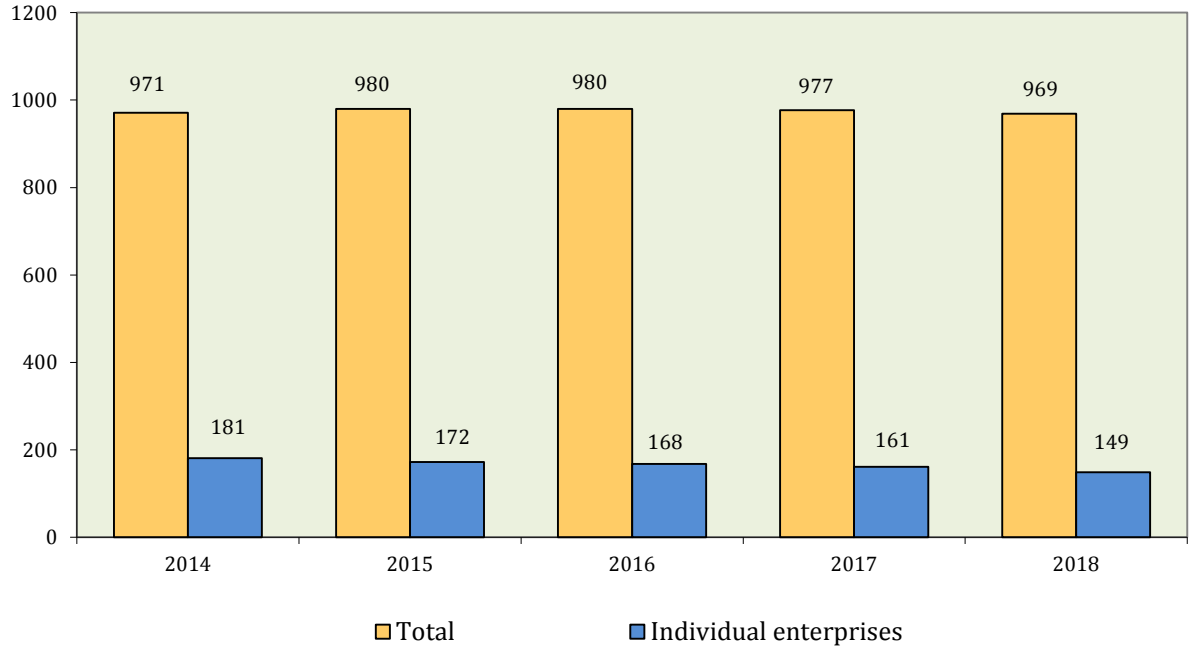


Fig. 1.17. Number of enterprises of manufacture of food products and beverages in Lithuania in 2014–2018 (at the end of the year)

Source: Statistics Lithuania.

According to the data of Statistics Lithuania, most of enterprises manufacturing food products and beverages are located close to the major cities. At the end of 2018, 26.6% of all these enterprises operated in Kaunas County, 23.0% in Vilnius County (Fig. 1.18). The lowest number of food industry enterprises was in the counties of Utena and Alytus, accounting for 2.9% and 3.9%, respectively. In 2018, if compared to 2014, the number of enterprises increased most of all in Alytus, Kaunas and Vilnius counties – by 11.8%, 5.3% and 4.7%, respectively. The most considerable decrease was noted in Telšiai (15.6%), Šiauliai (13.2%) and Tauragė (10.4%) counties.

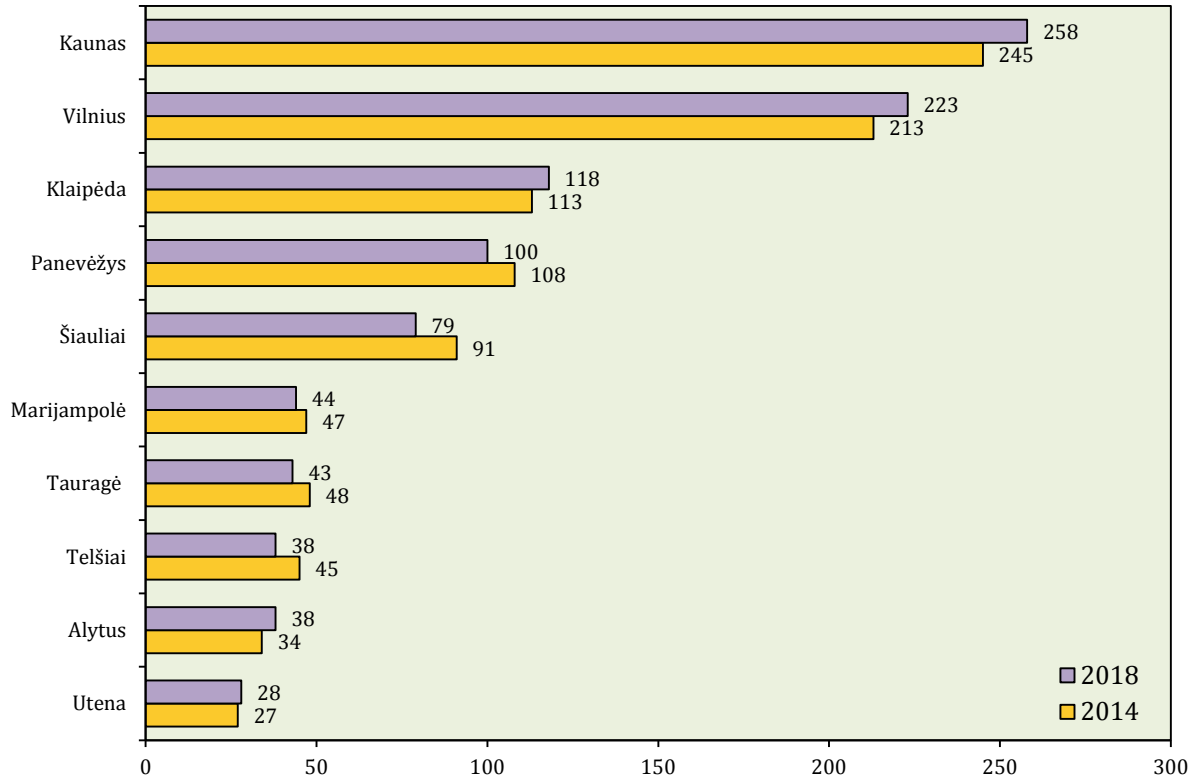


Fig. 1.18. Number of enterprises of manufacture of food and beverages by county in Lithuania in 2014 and 2018 (at the end of the year)

Source: Statistics Lithuania.

Over the reference period of 2014–2018, the number of enterprises in the sectors varied ambiguously. The number of enterprises engaged in manufacture of grain mill products, starches and starch products has dropped by 8.0%. The number of enterprises most of all within five years increased in the sector of processing and preserving of fruit and vegetables and in the sector of processing and preserving of fish, crustaceans and molluscs – by 31.8% and 1.9%, respectively (Table 1.11).

Table 1.11. Entities of manufacture of food products in Lithuania and their sales* in 2014–2018

Indicators	2014	2015	2016	2017	2018
Manufacture of food products and beverages					
Number of enterprises	971	980	980	977	969
Number of employees	42843	42480	42051	42279	4159
Sales in domestic market, EUR mill.	2501,6	2483,8	2417,0	2600,9	2561,2
Export value, EUR mill.	1768,3	1656,3	1699,8	1801,0	1823,8
Manufacture of grain mill products, starches and starch products					
Number of enterprises	29	28	26	25	23
Number of employees	1213	1196	1146	1229	1247
Sales in domestic market, EUR mill.	53,3	55,5	57,2	50,7	55,0
Export value, EUR mill.	125,5	149,2	161,2	170,1	201,6

Indicators	2014	2015	2016	2017	2018
Processing and preserving of meat and production of meat products					
Number of enterprises	177	167	177	180	175
Number of employees	8415	7909	7458	7704	7525
Sales in domestic market, EUR mill.	553,3	507,8	397,6	425,5	426,1
Export value, EUR mill.	141,4	140,0	137,5	149,4	161,2
Manufacture of dairy products					
Number of enterprises	33	33	31	31	31
Number of employees	7557	7444	7283	7196	7225
Sales in domestic market, EUR mill.	554,1	499,9	532,0	562,1	515,8
Export value, EUR mill.	594,3	408,0	416,6	505,9	473,4
Processing and preserving of fish, crustaceans and molluscs					
Number of enterprises	53	58	60	57	54
Number of employees	4895	4611	5123	5400	5284
Sales in domestic market, mill. EUR	186,1	198,9	190,3	287,7	323,7
Export value, mill. EUR	323,0	372,8	385,2	344,2	315,6
Processing and preserving of fruit and vegetables					
Number of enterprises	41	46	50	55	54
Number of employees	1058	1186	1218	1191	1106
Sales in domestic market, EUR mill.	42,4	45,4	46,3	46,9	50,8
Export value, EUR mill.	30,6	30,9	38,9	45,5	49,0

* VAT and excise duty incl.

Source: Statistics Lithuania.

The total number of employees involved in the manufacture of food products and beverages in 2018 was lowest within the reference period and, compared to 2017, decreased by 2.6%, and, compared to 2014, by 3.9%. During the reference period, the highest growth in the number of employees was fixed in 2014. Tendencies by sector varied. In 2018, compared to 2017, the number of employees increased most significantly in the enterprises involved in the manufacture of grain mill products, starches and starch products (by 1.5%). In other sectors the number of employees went on decreasing within the past years; mostly in the sector of processing and preserving of fruit and vegetables (7.1%). In 2018, the majority of enterprises operated in such sectors, like bakeries and manufacture of grain mill products (376 enterprises), as well as processing and preserving of meat and production of meat products (175 enterprises), whereas by the average employee number per enterprise they were relatively smaller than the enterprises in other sectors.

With the number of enterprises engaged in manufacture of food products and beverages decreasing, in 2018, compared to 2017, the average number of employees per enterprise dropped by 2.3%. The average number of employees in different sectors varied substantially: the smallest number was in the sector of animal and vegetable fats and oils (9 employees). The average number of employees per enterprise involved in the

processing and preserving of fruit and vegetables was 20 employees, the highest number was in the enterprises of manufacture of dairy products and involved in the processing and preserving of fish, crustaceans and molluscs (233 and 98 employees, respectively).

In Lithuania, 53.7% of all enterprises by number of employees are attributed to very small enterprises (less than 10 employees), operating in the manufacture of food products and beverages (Fig. 1.19). Enterprises with more than 250 employees accounted for 4.0%, whereas they employed almost 46.7% of all the employees involved in the sector of manufacture of food products and beverages.

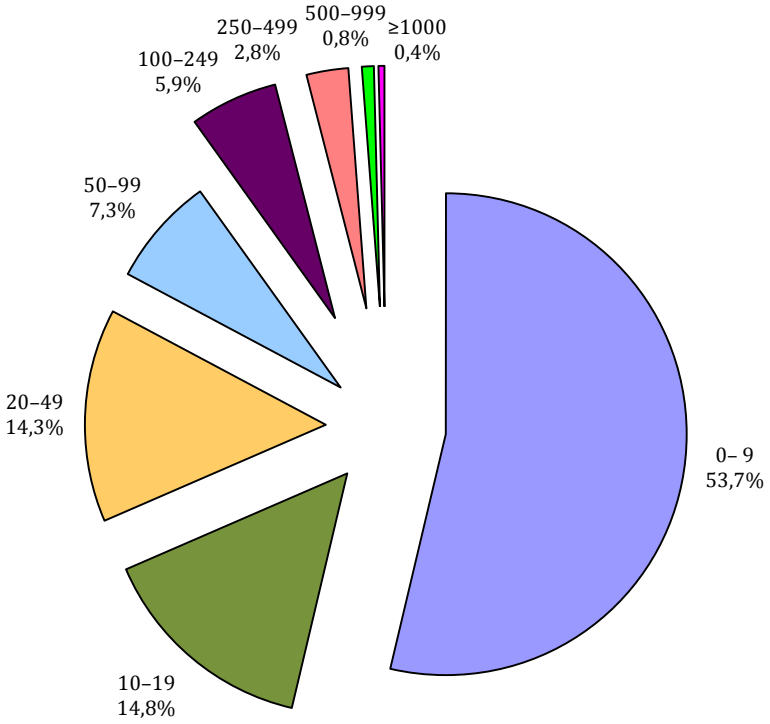


Fig. 1.19. Structure of enterprises of manufacture of food and beverages by number of employees in Lithuania in 2018 (at the end of the year)

Source: Statistics Lithuania.

Very small enterprises are prevailing in the EU member states, and in 2016 they comprised even 78.9% of all the enterprises (Table 1.12). The share of medium-sized and large enterprises (by number of employees) made up a small part in the total structure of enterprises for manufacture of food products and beverages; however, in Lithuania, like in Latvia and Estonia, it is considerably higher than in the most advanced EU countries.

Table 1.12. Structure of food and beverages enterprises* by number of employees in EU countries in 2016, per cent

Country	Number of employees				
	1–9	10–19	20–49	50–249	≥ 250
EU	78,9	10,5	6,0	3,8	0,9
Belgium	81,6	8,0	5,8	3,5	1,0
Bulgaria	74,2	10,5	8,7	6,1	0,5
Czech Republic	85,1	5,4	5,1	3,6	0,7
Denmark	62,4	16,0	12,3	7,4	1,8
Germany	47,9	30,8	9,9	9,1	2,3
Estonia	69,7	11,3	8,9	8,3	1,8
Ireland**	73,5	7,6	9,0	7,2	2,7
Greece	90,3	5,2	2,7	1,5	0,3
Spain	77,3	10,0	8,4	3,5	0,7
France	88,1	6,6	3,1	1,7	0,5
Croatia	75,1	13,2	7,2	3,3	1,2
Italy	86,2	8,4	3,7	1,5	0,2
Cyprus	78,8	11,1	5,4	4,4	0,3
Latvia	73,3	7,9	9,5	8,2	1,1
Lithuania	**72,7**	**9,2**	**8,5**	**7,6**	**2,0**
Luxembourg	56,8	17,4	10,3	12,3	3,2
Hungary	77,2	10,0	7,2	4,7	0,8
Malta	97,3	0,0	0,0	2,7	0,0
Netherlands	79,6	8,5	5,6	5,2	1,1
Austria	62,8	17,6	12,3	5,9	1,5
Poland	70,8	9,5	9,7	7,9	2,0
Portugal	81,0	9,9	6,0	2,7	0,4
Romania	69,4	12,7	10,5	6,1	1,3
Slovenia	92,4	3,7	1,7	1,7	0,5
Slovakia	84,2	6,1	5,5	3,5	0,7
Finland	74,8	9,8	8,3	5,9	1,3
Sweden	83,5	7,8	5,0	2,8	0,8
United Kingdom	71,0	10,6	8,6	7,5	2,3

* Active legal and natural persons.

** Only manufacture of food products.

Source: Eurostat data.

By the average number of employees per enterprise, Telšiai, Marijampolė and Panevėžys counties in 2018, like in 2014, were in the lead (Fig. 1.20). Over the reference period, the average number of employees per enterprise involved in the manufacture of food and beverages has changed most significantly in Telšiai county (the average number of employees increased by 16.8%) and in Alytus county (dropped by 31.0%).

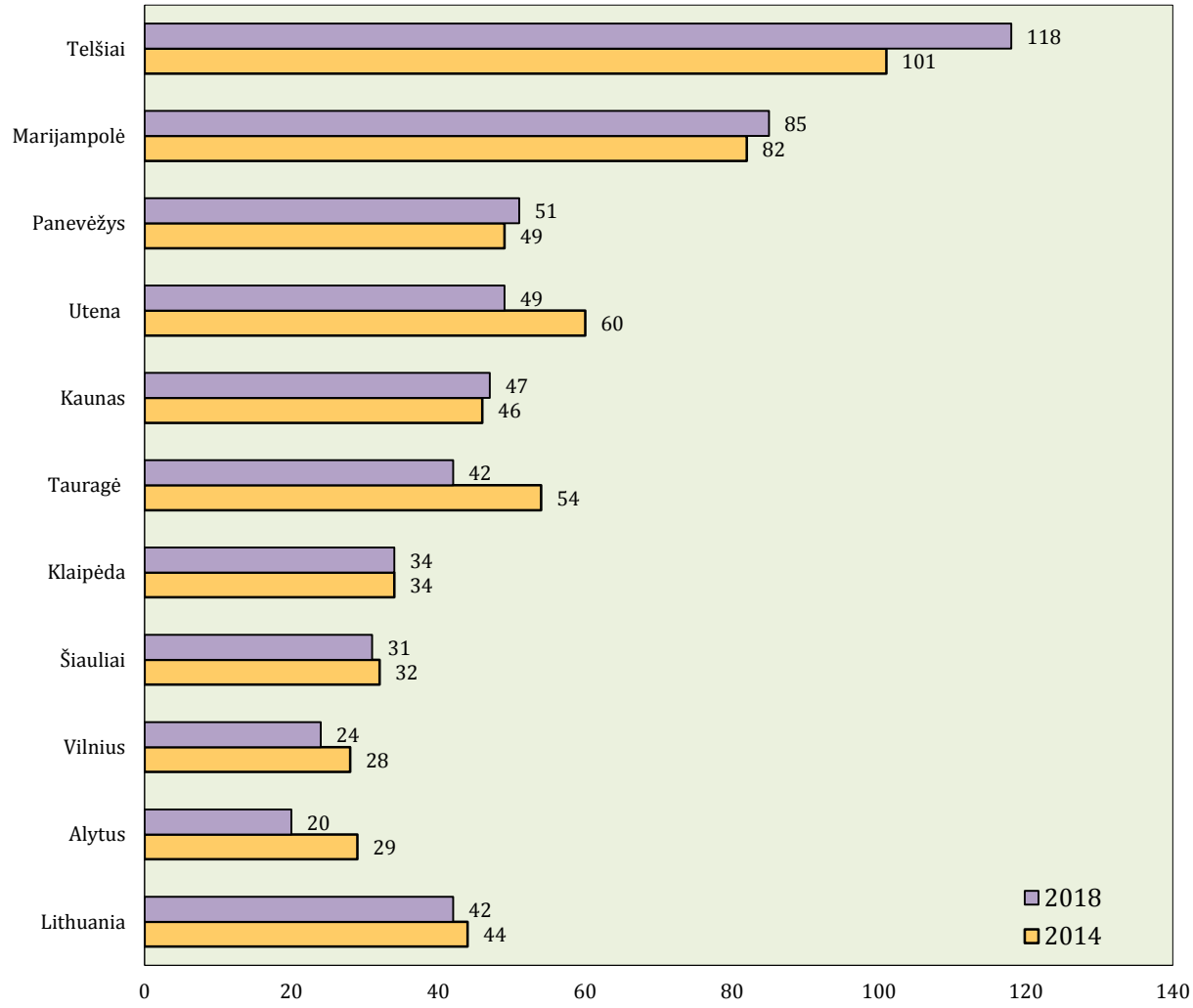


Fig. 1.20. Average number of employees per enterprise of manufacture of food and beverages by county in Lithuania in 2014 and 2018 (at the end of the year)

Source: Statistics Lithuania.

Within the reference period of 2014–2018, the average income of Lithuanian enterprises engaged in the manufacture of food products and beverages generated from sales increased by 2.9%. The most important factor that has determined such tendencies was the decreased number of enterprises and the increasing sales income gained by enterprises in domestic and foreign markets. Maintenance of domestic and foreign markets and search of new markets will assure the development of food and beverage industry in the future.

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

Volumes of the sold food products, alcoholic beverages and tobacco in 2018, compared to 2014, have increased by 20.8% (Table 2.1), whereas the average consumption per capita increased by 26.5%. Retail trade in 2018, compared to 2017, went up by 5.6%. If not for the low-priced products that made the Polish market so competitive, volumes of trade in our products on the domestic market might be bigger.

Table 2.1. Retail sale of food products, alcoholic beverages and tobacco products in 2014–2018

Indicators	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Total sales, EUR mill.	3833,3	3946,5	4137,9	4387,9	4631,7	20,8
Per capita, EUR	1307,1	1358,6	1432,5	1555,1	1653,3	26,5

Source: Statistics Lithuania.

In 2018, compared to 2014, the average monthly net earnings have increased by 37.8% (Table 2.2), and the price index of food products (in December 2018, compared to December 2013) went up by 6.3%. In 2018, compared to 2014, the population of our country could afford purchasing more food products, as growth in their prices in 2014–2018 was lower comparing to earnings.

Table 2.2. Purchasing power of net earnings of employees in the national economy in 2014–2018

Indicators	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Average monthly net earnings, EUR	526,5	553,0	609,4	665,3	725,4	37,8
Purchasing power of average net monthly earnings in IV Quarter*						
beef ham with bone, kg	103	110	120	121	134	30,1
pork ham with bone, kg	155	171	186	206	234	51,0
milk, 2.5% fat content, l	675	758	846	875	1044	54,7
butter, 82% fat content, kg	73	83	96	66	76	4,1
eggs, 10 pcs	450	457	500	416	511	13,6
rye bread, kg	353	374	401	429	470	33,1
sugar, kg	609	700	725	853	1175	92,9

* LIAE estimation.
Source: Statistics Lithuania.

According to Eurostat data, expenditure on food by the Lithuanian population in December 2017 accounted for 21.6% of the total household expenditure, and, together with expenditure on alcohol, lodging and utilities, amounted even to 42.5%. Expenditure on food of the average EU resident in 2017 just made 12.2%, whereas with the analogous expenditure amounted to 40.2%.

According to the data of Statistics Lithuania, the core national domestic market consists of large supermarkets constituting some ¾ of the market with more than 700 outlets. In total, 5.3 thousand stores are selling foodstuffs in Lithuania; their number during the five-year period got decreased by 1.4%, whereas trade areas increased by 12%.

Turnover of food products in local market-places in 2018 just accounted for some 3.2% of the total food market in Lithuania. Almost half of these products consisted of meat and meat products (Table 2.3), and their turnover in 2018, compared to 2014, increased by 14.0%. Over the 2014–2018 period, the trade volumes of vegetables and potatoes went up by 21.1% and that of dairy products increased by 37.5%. Only sales of eggs went on decreasing.

Table 2.3. The turnover of food products in local markets in 2014–2018, EUR mill.

Products	2014	2015	2016	2017	2018	Change compared to 2014, %
Food products	131,6	139,4	139,2	140,9	150,0	14,0
of which:						
meat and meat products	63,8	69,2	68,9	67,1	69,5	8,9
vegetables and potatoes	35,9	38,9	39,9	40,5	43,5	21,1
fruit and berries	15,1	15,5	16,5	18,2	20,5	35,8
milk and dairy products	3,2	3,6	3,5	3,8	4,4	37,5
eggs	3,2	2,6	2,3	2,6	2,3	-28,1
other food products	10,3	9,6	8,2	8,7	9,7	-5,8

Source: Statistics Lithuania.

The short supply chains are becoming still wider in scale, even though farmers directly selling their products are not numerous; therefore, quite often it becomes complicated for the consumer to get products directly from the farmers.

Small mobile farmers' market-places, on-line trading in farmers' products and other forms of direct selling are still more gaining in scope, though so far cannot compete seriously with trade networks which have occupied a big share on the retail market.

Manufacture of agricultural products and marketability has an impact on trade in agricultural and food products on the national market. Production of agricultural products (Table 2.4) in 2018 has dropped as a result of drought. Crop production in 2018 compared to 2017 reduced by almost one-fourth. However, even such harvest

enables not only the needs of the internal market to be satisfied (except pig meat, vegetables and fruit) but also a substantial part of cereals, beef meat, poultry meat and processed products to be exported. In 2018, the grain harvests by 2.4 times exceeded the domestic market needs; the number of cattle bred has also almost thrice exceeded the needs of the internal market. Self-sufficiency in milk and dairy products 1.5 times exceeded the national needs. Self-sufficiency in other types of agricultural and food products are not in surplus, and those in vegetables and fruit, like in pig meat, are insufficient.

Table 2.4. Production and purchase of agricultural products in 2014–2018, thou. t

Indicators	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Production						
Grain production	5324	6521	5757	5782	4379	-17,7
Sugar beet production for industry	1014	620	934	957	880	-13,2
Livestock & poultry, slaughtered (l. w.)	340	363	347	368	378	11,2
Milk production	1795	1739	1756	1628	1515	-15,6
Egg production, mill. pcs	806	786	789	755	898	11,4
Purchase						
Cereal	3240	3428	4025	4118	3066	-5,4
Rapeseed	406	441	334	436	347	-14,5
Livestock & poultry (l. w.)	269	277	284	297	296	10,0
Milk, actual fat content	1436	1438	1415	1402	1363	-5,1
Eggs, mill. pcs	483	518	599	526	624	29,2

Source: Statistics Lithuania.

Due to the cultivation of larger agricultural areas in 2014–2017, the yield of crops got increased; however, as already mentioned, in 2018, compared to 2017, the yield got decreased by one fourth due to drought. With the number of cows reducing, milk production in 2018, compared to 2014, dropped by 15.6%. Meat production went up (by 9.4%); more eggs were collected (by 11.4%).

In the reference period from 2014 prices for most products went on increasing insignificantly on the domestic market or in the past year even got reduced. In 2018, compared to 2014, only prices for butter, eggs and potatoes went up significantly (Table 2.5). Their growth is related to the global price tendencies. Prices for sugar have dropped even by one fourth. In general, the retail price index of food products has increased very insignificantly within the period of five years (by 6.3%).

Products by local processors are predominant on the domestic market. Sales in non-Lithuanian dairy products in 2018 accounted for 21%, eggs 18%, meat 49% (beef meat 48%, poultry meat 40%, and pig meat 67%).

Table 2.5. Retail prices of food products in December 2014–2018, EUR/kg

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Beef ham with bone	5,12	4,99	5,11	5,51	5,43	6,1
Pork ham with bone	3,39	3,24	3,28	3,23	3,21	-5,3
Chicken, drawn	2,48	2,33	2,33	2,41	2,46	-0,8
Milk, 2.5 % fat content, EUR/l	0,78	0,71	0,74	0,76	0,72	-7,7
Butter, 82 % fat content	7,25	6,60	5,68	10,05	9,90	36,6
Curd, 5–9 % fat content	3,90	3,45	3,55	3,65	3,65	-6,4
Eggs, 10 pcs	1,19	1,30	1,25	1,60	1,47	23,5
Best quality wheat flour	0,68	0,69	0,65	0,64	0,67	-1,5
Rye bread	1,50	1,46	1,54	1,55	1,60	6,7
Best quality wheat flour bread	1,63	1,58	1,60	1,55	1,57	-3,7
Potatoes	0,26	0,30	0,26	0,27	0,33	26,9
Granulated sugar	0,85	0,75	0,86	0,78	0,64	-24,7

Source: Statistics Lithuania.

The prices for Lithuanian agricultural and food products sold on the domestic market have been greatly impacted by the purchasing power of the population, the value added tax enforced in the country and the average wages. The consumer price indices best of all reflect prices in separate countries. According to Eurostat data, the highest consumer price indices for food in EU countries in 2018 were in Denmark and Luxembourg, and the lowest in Romania and Poland (Table 2.6). Prices for food products of Lithuanian origin were one of the lowest (81.5 of the EU average), especially for meat. However, the prices in neighbouring Poland may compete at least with tradesmen from Romania. The dairy product prices in Lithuania are lower than in other EU countries, except Poland. Prices for food products in the EU countries vary. The highest differences in prices are of bread and grain products: in Romania lower by 45.8% than the EU average, and in Denmark, on the contrary, exceeded by 41.5% the EU average. Price variations of milk, cheeses and eggs are lowest: in Poland prices are lower by 28.8% than the EU average and in Cyprus by 35.7% higher than the EU average.

Table 2.6. Price indices for food and non-alcoholic beverages in EU countries in 2018

Country	Food and non-alcoholic beverages	Food	Bread and cereal products	Meat	Milk, cheese and eggs
Romania	66,1	65,4	54,2	63,0	93,0
Poland	69,2	67,9	68,4	62,5	71,2
Bulgaria	76,4	74,8	62,0	64,2	98,3
Lithuania	**81,5**	**79,6**	**81,4**	**70,5**	**90,2**
Czech Republic	84,0	83,2	79,5	76,3	91,7
Hungary	84,5	84,0	76,8	74,9	92,8
Latvia	93,0	90,9	86,0	75,8	106,5
Slovakia	93,8	92,4	87,5	79,3	100,2

Country	Food and non-alcoholic beverages	Food	Bread and cereal products	Meat	Milk, cheese and eggs
United Kingdom	94,4	93,0	86,4	95,0	92,0
Estonia	95,2	94,6	95,2	84,1	102,6
Spain	95,4	95,9	108,0	89,2	95,6
Slovenia	96,8	97,5	103,9	96,7	102,2
Croatia	97,4	95,9	102,9	85,0	96,3
Portugal	99,3	97,7	97,5	83,3	108,8
EU	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Netherlands	101,0	101,1	89,9	123,4	102,3
Germany	101,9	102,2	101,5	105,9	96,8
Greece	106,2	105,2	114,2	91,4	134,2
Cyprus	108,2	108,4	123,4	88,8	135,7
Italy	111,0	113,0	118,1	119,5	115,2
Malta	111,9	110,8	110,5	97,8	116,7
Belgium	114,4	114,3	114,5	126,3	112,5
France	114,9	116,4	111,2	130,9	99,7
Sweden	116,9	118,0	123,2	119,0	112,5
Finland	119,6	119,3	127,3	122,0	115,7
Ireland	120,0	118,4	119,4	105,4	121,2
Austria	125,0	126,6	135,3	145,7	106,6
Luxembourg	125,2	126,9	127,0	141,5	131,1
Denmark	130,1	130,3	151,8	120,9	117,1

Source: Eurostat data.

The domestic market for food products in our country which is noted for relatively low prices does not seem to be very attractive to local consumers, as Value added tax (VAT) is one of the highest in the EU.

2. Foreign trade in agricultural and food products

Export. Owing to the small domestic market and comparatively higher supply than demand, the Lithuanian agricultural and food products are being oriented towards export. Export development is one of the key factors that assures the growth of the national economy, provides conditions for increasing production and trade volumes, national competitiveness, development of new technologies and innovations, for maintenance and creation of new jobs. The declining tendencies were characteristic of the indicators of the Lithuanian foreign trade in agricultural and food products in 2015 and 2016 due to the reduced global prices of products and geopolitical tension. The positive economic effects, the successful consolidation in the existing markets and penetration into new alternative markets, however, were the conditions for the replacement of the decline in export value by its rapid growth in 2017. The tendency of

growth has been also continuing in 2018, the value achieved was highest within the entire reference period. According to the preliminary data of Statistics Lithuania, exports of agricultural and food products from Lithuania in 2018 amounted to EUR 4.9 billion. Comparing to 2017, export augmented by 1.6%, and compared to the beginning of the reference period it increased by 5.2% (Fig. 2.1).

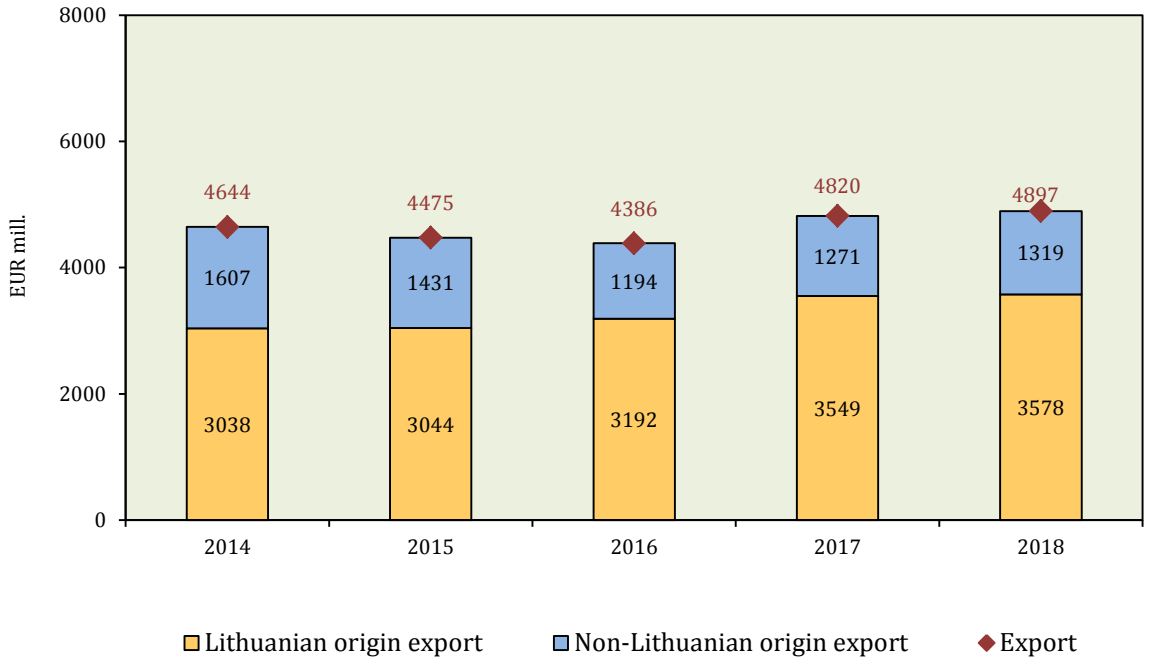


Fig. 2.1. Exports of agricultural and food products by origin of products and its share in total Lithuanian export of goods in 2014–2018

Source: Statistics Lithuania.

Export of agricultural and food products makes a substantial part in the structure of Lithuanian export of goods, which increased from 19.1% in 2014 to 19.5% in 2015, but started declining in 2016 and reached 17.3% in 2018.

Analysis of agricultural and food products by origin shows that variation tendencies of exports of products of Lithuanian and non-Lithuanian origin have been opposite. Export of products of Lithuanian origin within the past five years has been constantly increasing and in 2018 reached its peak (amounted to EUR 3.6 billion); comparing to 2014, increased by 17.8%. The specific weight of products of Lithuanian origin in the export structure by origin went up from 65.4% in 2014 to 73.1% in 2018

Variation tendencies of export of products of non-Lithuanian origin were analogous, like all tendencies of export in agricultural and food products. In 2014 it dropped from EUR 1.6 billion to EUR 1.2 billion in 2016 and from 2017 started growing and in 2018 reached EUR 1.3 billion.

Analysis of export of agricultural and food products by two-symbol Combined Nomenclature (CN) codes showed that in 2018, compared to 2014, the most substantial increase was observed in exports of tobacco and tobacco substitutes (increment EUR 374.6 million), of fish and crustaceans (EUR 141.0 million), products from cereals, flour, starch or milk (EUR 55 million), food industry residues and waste and prepared animal

fodder (EUR 42.0 million), milling products, malt, and starch (EUR 38.6 million), products of vegetables, fruit or other parts of plants (EUR 37.7 million), products from meat, fish (EUR 26.2 million), and live plants and cut flowers (EUR 21.4 million) (Table 2.7).

Table 2.7. Exports of agricultural and food products in 2014 and 2018, EUR mill.

CN code and products*	2014		2018**		Change, %	
	total	Lithuanian origin	total	Lithuanian origin	total	Lithuanian origin
24 Tobacco & manufactured tobacco substitutes	363,2	360,8	737,8	725,5	2,0***	2,0***
04 Dairy produce; birds' eggs; natural honey	593,1	562,0	529,2	507,6	-10,8	-9,7
03 Fish & crustaceans	317,4	254,4	458,4	381,6	44,4	50,0
10 Cereals	596,8	585,6	418,3	385,9	-29,9	-34,1
22 Beverages, spirits & vinegar	351,4	106,3	368,8	112,9	5,0	6,3
23 Residues & waste of the food industries; prepared animal fodder	211,8	161,2	253,7	186,5	19,8	15,7
02 Meat & edible meat offal	226,5	184,1	227,0	201,6	0,2	9,5
07 Edible vegetables	320,6	47,5	224,3	156,8	-30,0	3,3***
19 Preparations of cereals, flour, starch or milk	149,9	94,9	204,9	139,8	36,7	47,2
08 Edible fruit & nuts	387,3	12,8	193,3	14,9	-50,1	16,5
16 Preparation of meat, of fish	152,9	126,3	179,1	161,3	17,1	27,8
21 Miscellaneous edible preparations	169,0	70,9	172,8	83,6	2,2	18,0
11 Products of the milling industry; malt; starches	100,5	95,2	139,1	134,4	38,4	41,2
12 Oil seeds; straw & fodder	120,5	98,6	123,8	76,6	2,8	-22,2
06 Live trees & other plants; cut flowers	100,6	5,1	122,0	6,8	21,3	32,3
18 Cocoa & cocoa preparations	107,3	74,1	117,0	82,6	9,1	11,4
17 Sugar & sugar confectionery	99,4	81,1	101,3	78,0	1,8	-3,9
20 Preparations of vegetables, fruit, nuts or other parts of plants	50,7	23,4	88,4	26,9	74,3	15,1
15 Animal or vegetable fats & oils	82,0	22,2	80,3	29,3	-2,0	31,9
01 Live animals	64,4	59,1	79,0	71,5	22,6	21,0
09 Coffee, tea, maté and spices	58,8	2,6	55,1	3,8	-6,4	45,8
05 Products of animal origin, not elsewhere specified	12,2	9,2	17,4	10,0	42,6	8,0
13 Lac; vegetable extracts	8,1	0,07	5,6	0,1	-31,0	64,1
14 Vegetable plaiting materials	0,13	0,09	0,2	0,1	30,9	-19,4
Total	4644,4	3037,5	4896,8	3578,0	5,4	17,8

* Sorted by the 2018 export value in descending order.
** Preliminary data.
*** Times.

Source: Statistics Lithuania.

In the period under study, a decline was found in exports of fruit and nuts (EUR 193.9 million), cereals (EUR 178.5 million), vegetables (EUR 96.2 million), milk and dairy products, eggs, honey (EUR 63.8 million), coffee, tea and spices (EUR 3.8 million), shellac, plant extracts (EUR 2.5 million), and fats and oils (EUR 1.7 million).

In 2018, as compared to 2014, exports of the major part of products of Lithuanian origin have increased. Most substantial increment of export was noted of tobacco and processed tobacco substitutes amounting to EUR 364.7 million. Export of fish and crustaceans EUR 127.0 million, vegetables EUR 109.4 million, products from cereals, flour, starch or milk EUR 44.8 million, milling products, malt, starch EUR 39.2 million, products from meat and fish EUR 35.1 million, and food industry residues and waste and prepared animal fodder EUR 25.3 million,

In the reference period, export of tobacco products has been constantly increasing and in 2018 it took the lead by value in the export structure. In 2018, compared to 2014, export of tobacco products increased twice and reached EUR 737.8 million and accounted for 15.1% of the total export value of agricultural and food products. Almost all these exported products were manufactured in Lithuania. In 2018, cigarettes accounted for 98% (in 2014, 73.2%) of tobacco product export, and the remaining part consisted of tobacco. In 2014, the main export partners of tobacco products were Algeria (18.5% of the total export of tobacco products), Sweden (15.2%), the Netherlands (10.1%), Latvia (7.4 %), and Belgium (7.2%). In 2018, the export market geography got changed: Japan (34% of the total export of tobacco products), Sweden (9.0%), Norway (6.5%), Finland (5.5%), and the Czech Republic (5.2%).

Milk and dairy products (CN 0401–0406) were ranked second by export value, their exports making 10.3% of the total export of agricultural and food products in 2018. As a result of the reduced global prices for milk and dairy products and an import embargo on these products imposed by Russia, the value of exports of the products under study has diminished from EUR 568.6 million in 2014 to EUR 391.2 million in 2015. The process of export reorientation and the growing export prices predetermined the increase in export volumes of milk and dairy products in the period of 2016–2017 (up to EUR 406.8 and 527.2 million EUR, respectively). In 2018, prices for milk products went on decreasing quite considerably in export markets; therefore, the export value of products under study got reduced to EUR 505.5 million. In the reference period 97.1% of the total export of milk and dairy products was of Lithuanian origin.

In 2018, 37.3% (in 2014, 45.0%) 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 183.2 million, or by 25.4% less than in 2014. The export value of not concentrated milk and sweet cream, compared to 2014, increased by 18.2% and in 2018 amounted to EUR 164.3 million, or accounted for 33.5% of export of milk and milk products (in 2014, 25.4%). Export of concentrated milk and sweet cream amounted to EUR 73.8 million, in 2014 EUR 88.1 million. Their share in the export structure of milk and dairy products in 2018, compared to the beginning of the reference period, decreased by 1.1 percentage point and reached 15.0%. In 2018, export of whey amounted to EUR 35.9 million, or by 16.8% more than in 2014, and accounted for 7.3% (in 2014, 5.6%) of export value of products under study. In 2018, export of butter and other milk fats amounted to EUR 24.5, million, or by 16.6% less than in 2014, and accounted for 5.0% of export of milk and milk products (in 2014, 5.4 %).

In 2014, 61.5% of export of milk and milk products of Lithuanian origin was shipped to the EU countries and 17.2% to Russia, and with Russia's market closed, the

export structure got changed. In 2018, the share of the said products exported to the EU countries increased to 79.9%, and the key markets in third countries became Libya (3.2% of export of milk and milk products), Vietnam (2.4%), Kazakhstan (2.0%), USA (1.8%), and Armenia (1.4%).

Ranked third in terms of export value (9.4% of the total value of exported agricultural and food products) were fish and crustaceans, their export amounting to EUR 458.4 million, or 1.4 times more than in 2014. The share of products of Lithuanian origin in the reference period has increased from 80.1% to 83.2% of the total export of fish and crustaceans. The largest portion of exports in 2018 included dried, salted, smoked or otherwise processed fish, for EUR 261.2 million, 1.5 times more than in 2014. Export of fish fillets and other fish meat has also increased in 2018 – 1.5 times (to EUR 148.1 million) more than in 2014. The main export partners of the products under study in 2018 were Germany (39.6%), Belgium (14.5%), Italy (11.9%), Latvia (5.0%), and Denmark (4.9%).

Export of cereals by export value took the fourth place in the export structure. In 2018, their export amounted to EUR 418.3 million, or by 30% less than in 2014, and its share from the total export made 8.5% (in 2014, 12.8%). This negative change was due to the reduced yield of cereals as a result of unfavourable weather conditions (drought). 92.2% of the shipped cereals have been cultivated in Lithuania. The major share of the total export of cereals of Lithuanian origin consisted of wheat. Its share in exports reduced from 83.0% in 2014 to 76.6% in 2018. During the reference period, export of oats and rye has increased (1.7 and 1.6 times, respectively). In 2014, the main partners of export in cereals were the Islamic Republic of Iran (39.8% of the total export of cereals), Saudi Arabia (10.1%), Latvia (8.8%), Egypt (7.4%), and Turkey (5.0%). In 2018 export markets were: Saudi Arabia (29.0% of the total export of cereals), Latvia (17.5%), Spain (8.3%), Germany (7.1%), and Nigeria (6.4%).

In 2018, 7.5% of the total export value of agricultural and food products belonged to beverages, sprits and vinegar, and as compared to 2014, their shipment was higher by 5.0% – for EUR 368.8 million. The value of the exported alcoholic beverages reached EUR 320.0 or by 7.6% more than in 2014. The key export partners, like five years ago, were Russia (72.8%) and Latvia (9.7%). In 2018, the export value of non-alcoholic beverages reached EUR 42.4 million, or was by 11.4% less than in 2014, and their largest portion was shipped to Latvia (35.7%) and Estonia (32.6%). Export of vinegar and its substitutes amounted to EUR 1.6 million, or 2.4 times more than in 2014. The main export partners were Belarus (42.7%), Russia (29.4 %) and Latvia (17.9%). Beverages of Lithuanian origin in 2018 accounted for 30.6% of export value.

Export of residues and waste from the food industries and prepared animal fodder (under CN Chapter 23) in 2018 was by 1.2 times higher than in 2014 – EUR 253.7 million. Products of Lithuanian origin in 2018 constituted 73.5% of the total export of products in question. The key partners of export in products under CN Chapter 23 in 2018 were the United Kingdom (16.0%), Latvia (15.6%), Poland and Germany (11.3% each), and Russia (5.0%).

Exporters of Lithuania are expanding the export geography of agricultural and food products: in 2014, products were shipped to 122 countries, and in 2018 to 147 countries. The market of the EU countries further remains the key market for Lithuanian exporters of agricultural and food products. The export share of agricultural and food products belonging to the EU countries increased from 53.7% in 2014 to 64.5%. Export to the EU countries in 2018, compared to 2014, increased by 26.6% – up to EUR 3157.4 million (Fig. 2.2).

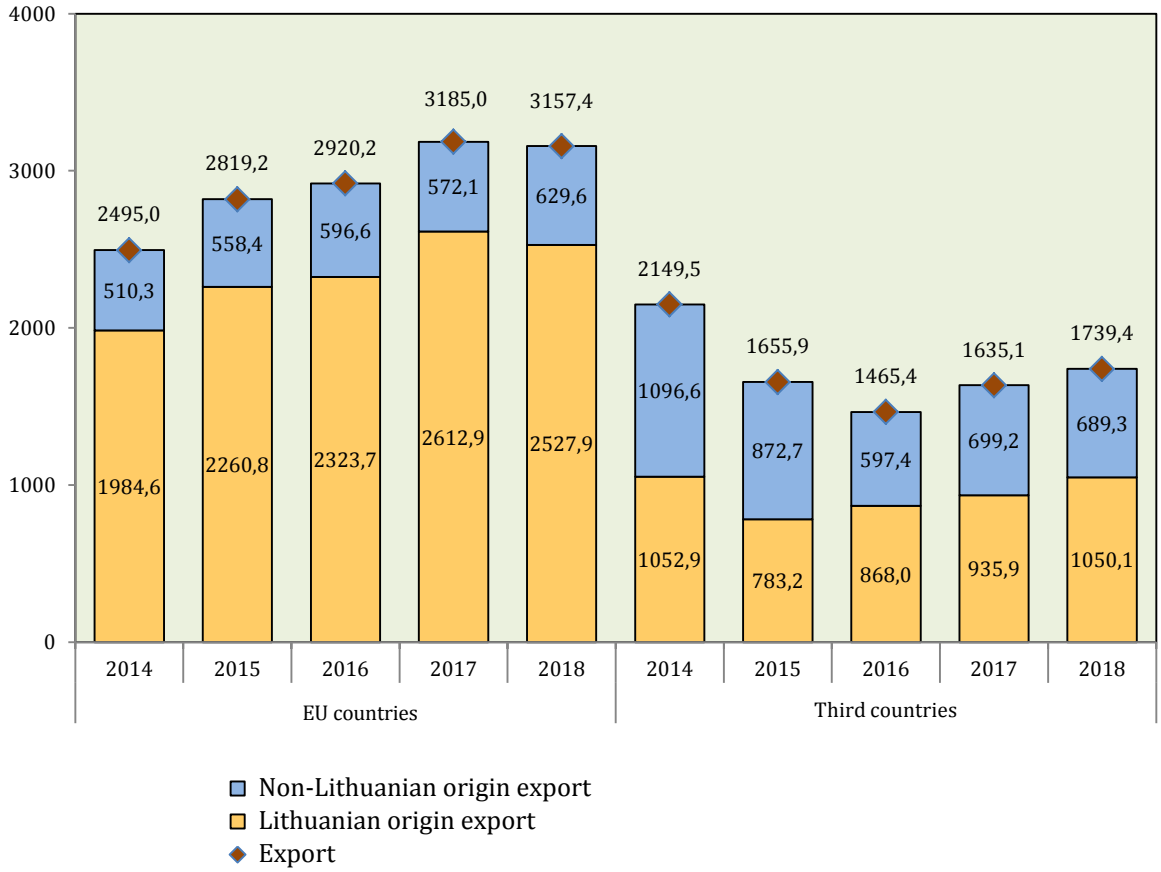


Fig. 2.2. Exports of agricultural and food products by country group and by origin of products in 2014–2018, EUR mill.

Source: Statistics Lithuania.

The share of products of Lithuanian origin in 2014 and 2018 made up 79.6% of the total export to the EU countries, the export value EUR 1984.6 million and EUR 2527.9 million, respectively. In 2018, the main partners of export to the EU countries were Latvia (18.9% of the total export to the EU countries), Germany (13.9%), Poland (13.1%), Italy (7.1%), and Estonia (6.3%). In 2018, compared to 2014, export to the first four above-mentioned countries has increased by 14.5%, 28.2%, 33.4%, and 30.9%, respectively, and reduced to Estonia by 4.4% (Table 2.8).

Export to third countries in 2015–2016 went on decreasing, and since 2017 a tendency for increasing has been observed until 2018, but did not reach the level of 2014. In 2018, compared to 2014, the export value to the above-mentioned countries has dropped by 19.1%, i. e. from EUR 2149.5 to 1739.4 million. Export analysis by origin showed that in the reference period export of products of Lithuanian origin has dropped by EUR 2.8 million – from EUR 1052.9 to 1050.1 million, that of non-Lithuanian origin 1.6 times, i. e. from EUR 1096.6 to 689.3 million. These changes predetermined that the share of products of Lithuanian origin from the total exports to third countries at the beginning of the reference period increased from 49.0% to 60.4% in 2018.

Table 2.8. Main export markets for agricultural and food products by country group and by origin of products in 2014 and 2018, EUR mill.

Country	2014		2018*		Change, %	
	total	Lithuanian origin	total	Lithuanian origin	total	Lithuanian origin
EU						
Latvia	520,6	313,4	596,3	356	14,5	13,6
Germany	343,0	315,1	439,8	381	28,2	21,1
Poland	310,8	227,0	414,8	332	33,4	46,3
Italy	170,4	160,2	223,2	216	30,9	34,7
Estonia	209,2	119,6	199,9	100,9	-4,4	-15,7
other EU countries	940,9	849,2	1283,4	1141,3	36,4	34,4
Third countries						
Russia	1069,2	221,8	518,7	71,4	-51,5	-67,8
Japan	15,3	15,3	258,4	258,2	16,9**	16,8**
Belarus	223,7	44,7	195,3	20,7	-12,7	-53,6
Saudi Arabia	76,3	76,3	124,7	124,75	63,5	63,5
Norway	47,4	39,8	91,8	88,3	1,6**	1,6**
other third countries	717,6	655,0	550,4	486,8	-23,3	-25,7

* Preliminary data.
** Times.

Source: Statistics Lithuania.

In the structure of export to third countries by countries, the leader position was retained by Russia. However, due to an embargo on import of certain food products imposed by Russia in 2014, its share from the total export to third countries in the reference period decreased from 49.7% to 29.8%. At that time the countries from the first five export markets consolidated their positions: in the reference period the share of Japan increased from 0.7% to 14.9% of the total export to third countries, Belarus from 10.4% to 11.2%, Saudi Arabia from 3.6% to 7.2%, and Norway from 2.2% to 5.3% .

Import. In 2018, Lithuania imported goods for EUR 30955.4 million, agricultural and food products were imported from 123 countries for EUR 3855.0 million, by EUR 96.3 million (2.6%) more than in 2017 and by EUR 149.1 million (4.0%) more than in 2014. In 2018, agricultural and food products constituted 12.5% of the total import of Lithuania (Fig. 2.3).

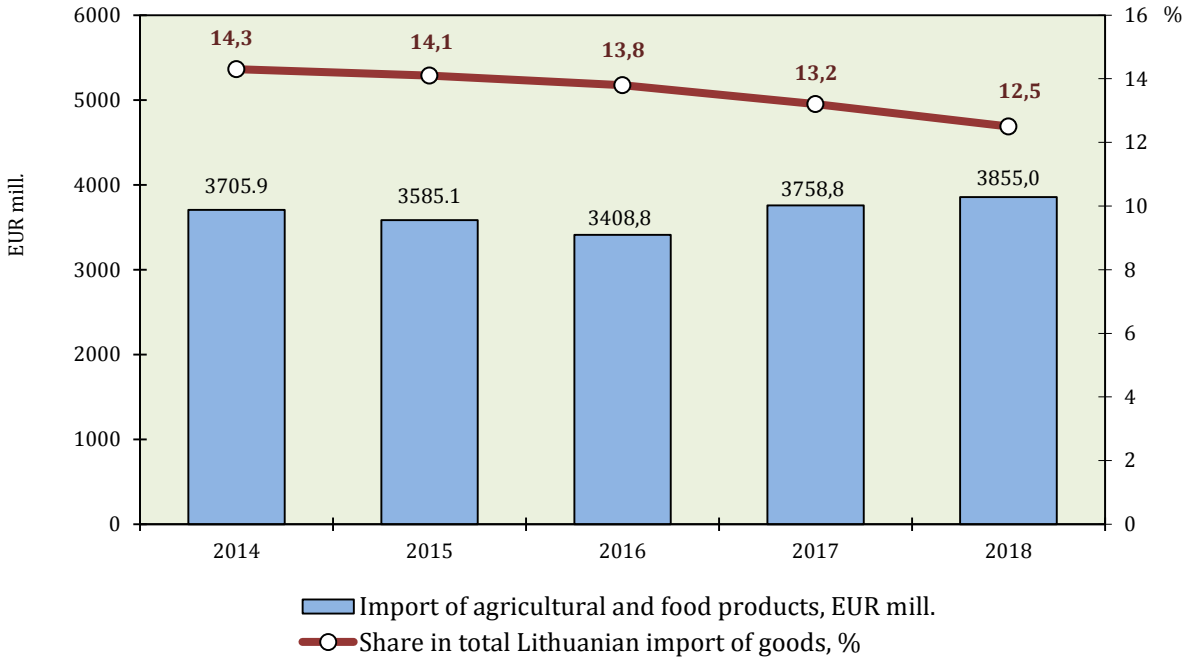
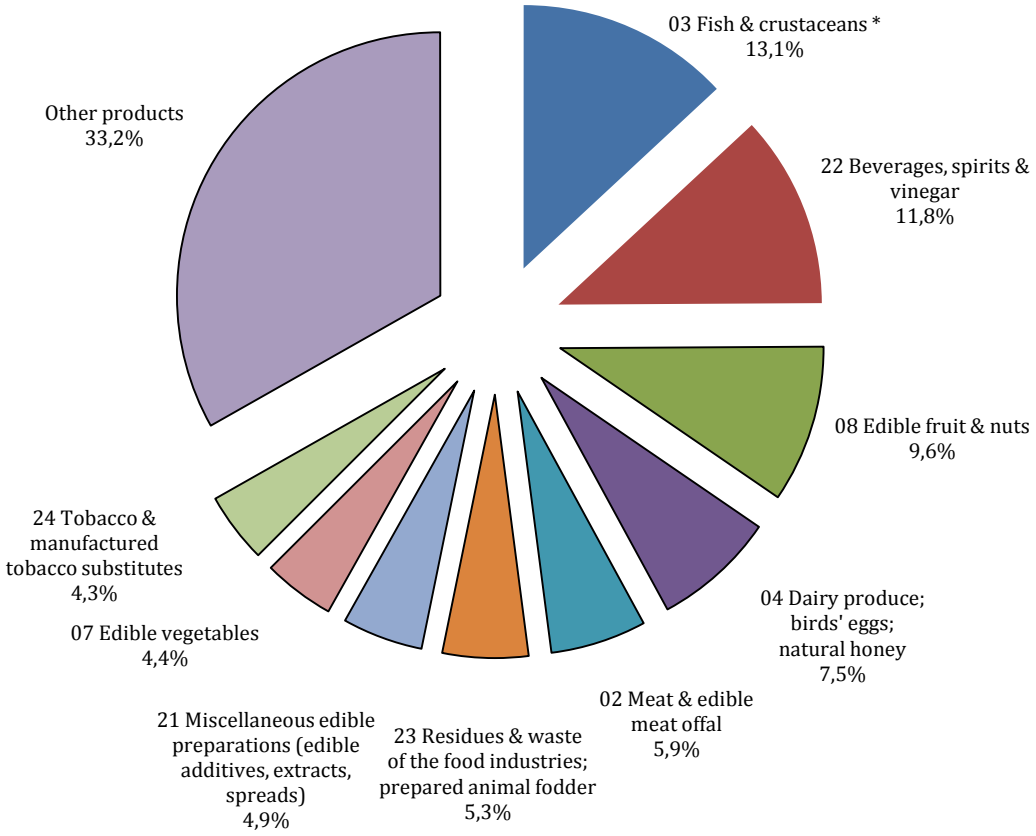


Fig. 2.3. Import of agricultural and food products and its share in total Lithuanian import of goods in 2014–2018

Source: Statistics Lithuania.

Of the 24 CN chapters, import of products belonging to 7 chapters decreased, and import of products under the remaining 17 chapters was higher than in 2017. The most substantial decrease by value was noted for edible fruit and nuts – by 10.6% (decreased by EUR 44.1 million), edible fruit and some root vegetables by 13.2% (EUR 25.5million), fats and oils by 11% (EUR 18.9 million), coffee, tea and spices by 5.6% (EUR 7.8 million), tobacco products by 1.7% (EUR 2.8 million), products from cereals, flour, starch or milk by 0.8% (EUR 1.3 million). Highest increase by value was for import of non-alcoholic and alcoholic beverages – by 8.7% (increased by EUR 36.3 million), fish and crustaceans by 5.8% (EUR 27.5 million), cereals by 48.3% (EUR 26.3 million), live trees, ornamental flowers and other plants by 15% (EUR 19.3 million), products of vegetables, fruit, nuts or other parts of plants (Chapter 20) by 14.6% (EUR 18.3 million), milk and milk products , eggs and honey by 4.7% (EUR 13 million), meat and edible meat offal by 4.6% (EUR 10 million), food industry residues and waste and animal fodder by 5% (EUR 9.7 million). During 2018, the largest portion of imports consisted of fish and crustaceans (13.1%, EUR 504.6 million), various beverages (11.8%, EUR 455.7 million), fruit and nuts (9.6 %, EUR 371.9 million) (Fig. 2.4).

Substantial import consisted of milk and milk products, birds' eggs and natural honey (7.5%, EUR 289.4 million (milk and milk products for EUR 264.2 million), meat and edible offal (5.9%, EUR 226.7 million), residues and waste from the food industries, prepared animal fodder (5.3%, EUR 203.1 million), miscellaneous food products (food additives, extracts and spreads) (4.9 %, EUR 190.0 million), edible vegetables (4.4%, EUR 168.1 million), tobacco and processed tobacco substitutes (4.3%, EUR 165.7 million), products from cereals, flour, starch or milk (4.3%, EUR 164.9 million), fats and oils (4.0%, EUR 153.0 million), live trees and other plants, cut flowers (3.8%, EUR 148.1 million), products of vegetables, fruit, nuts or other parts of plants (3.7%, EUR 143.5 million), coffee, tea, maté and spices (3.4 %, EUR 130.9 million).



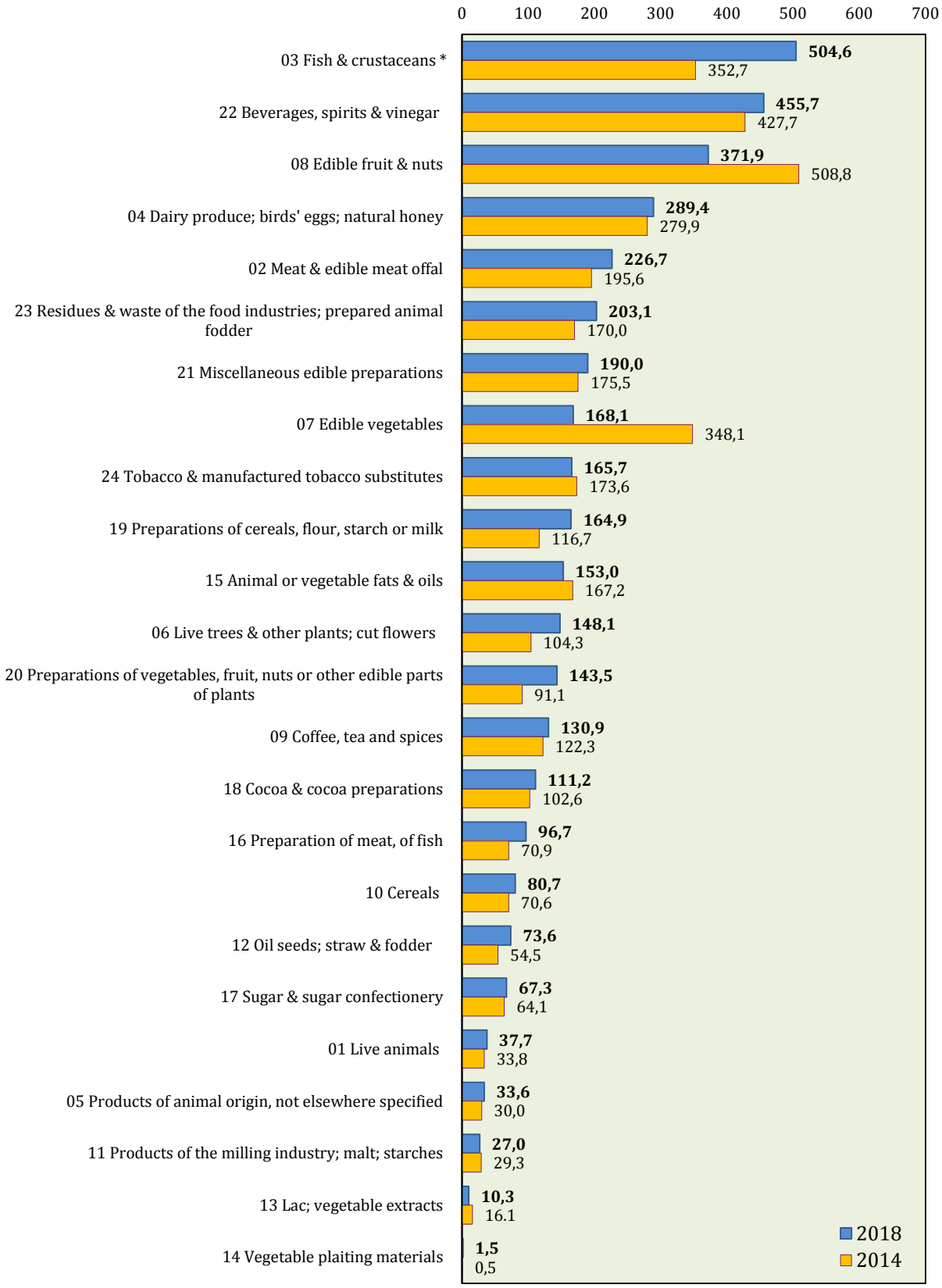
* CN code and product group.

Fig. 2.4. Structure of import of agricultural and food products in 2018

Source: Statistics Lithuania.

In the period of 2014–2018, the largest portion of import consisted of fruit and nuts. From 2016 import of fish and crustaceans was ranked first and stayed here, leaving fruit and nuts in the second place. Import of edible vegetables decreased most substantially: from EUR 348.1 million in 2014 to EUR 168.1 million in 2018. The import value in 2018 together with fish and crustaceans, various beverages, fruit and nuts, milk and milk products, eggs, honey, meat and meat offal, residues and waste from the food industries, prepared animal fodder, miscellaneous products under CN Chapter 21 (extracts, food additives and spreads) and edible vegetables constituted 62.5% of the total import value of agricultural and food products.

In 2018, compared to 2017, import of fish and crustaceans in terms of value increased by EUR 27.5 million (5.8%), comparing to 2014 by 43.1%, i. e. imports were by EUR 151.9 million higher (Fig. 2.5). In 2018, import included 55.9 thou. t of frozen fish for EUR 122.1 million, 43.2 thou. t of fresh and chilled fish for EUR 260.2 million, 32.2 thou. t of fish fillet and other fish meat for EUR 94.9 million. In 2018, fish and crustaceans were imported from Sweden (48.4%), Norway (9.4%), USA (6.9%), Russia (6.9%), Germany (5.6%), and Latvia (4.6%). Import from these countries accounted for 81.9% of the total value of imported fish and crustaceans.



* CN code and product group.

Fig. 2.5. Imports of agricultural and food products in 2014 and 2018, EUR mill.

Source: Statistics Lithuania.

In 2018, compared to 2017, the import value of non-alcoholic and alcoholic beverages and vinegar increased by 8.7%. In 2018, compared to 2014, import under this CN chapter increased by 6.5%. In 2018, 84.5% of the import value of this CN chapter products consisted of wines from fresh grapes 46.5% (EUR 208.8 million), strong spirits 22.7% (EUR 101.8 million), mineral and carbonated water with various flavours 15.4% (EUR 69.0 million), malt beer 6.5% (EUR 29.0 million). 63.3% of beverages in terms of value were imported from France (20.7%, EUR 94.3 million), Italy (14.8%, EUR 67.6 million), Spain (12.1%, EUR 55 million), Poland (8.6%, EUR 39 million) and Germany (7.1%, EUR 32.6 million).

Import of fruit and nuts by import value was ranked third in 2018. Import in 2018, compared to 2017, decreased by 10.6% (EUR 44.1 million). Import of fruit and nuts in 2018, compared to 2014, has dropped by 26.9%. In 2018, the largest share of import consisted of other fruits (CN0810) – bilberries, strawberries, etc., their value amounting to EUR 50.2 million (13.7% of import of this Chapter). Import of citrus fruit was for EUR 49.4 million (13.5%). Apples and pears constituted 12.2% of the import value of fruit and nuts, their import amounting to EUR 44.7 million. Big amounts of peaches, nectarines and apricots (CN0809) were imported for EUR 39.9 million (10.9%), fruit and nuts (CN0811) for EUR 38.5 million, other nuts (CN0802) for EUR 34.8 million, bananas (55.7 thou. t for EUR 32 million). The value of the said products accounted for 78.9% of the total import value of fruit and nuts imported from the Netherlands (16.5%, EUR 61.5 million), Spain (15%, EUR 55.7 million), Poland (9.1%, EUR 34 million), Belgium (7.3%, EUR 27.1 million), and Latvia (5.6%, EUR 20.9 million).

In 2018, compared to 2017, import of milk and milk products, birds' eggs and natural honey increased by 4.7%, the import value of milk and milk products alone increased by EUR 12.8 million (from EUR 256.1 million to EUR 268.9 million). In 2018, compared to 2014, import of milk and milk products, birds' eggs and natural honey increased by 3.4% (difference EUR 9.4 million). In 2018, 92.8% of the value of this Chapter consisted of milk products. 59.5% of the imported milk product value belonged to non-concentrated milk and sweat cream (of which 89.1% raw milk). The major portion of raw milk was imported from Latvia (66.1%) and Estonia (33.3%). Ranked second by the import volume in this group were cheeses and curd (18.6%, EUR 49.3 million), third was butter and other milk fat (8.3%, EUR 21.8 million). The major share of milk products was imported from Latvia (EUR 103.8 million, 39.3%), Poland (EUR 70.0 million, 26.5%), Estonia (EUR 56.2 million, 21.2%), and Germany (EUR 13.3 million, 5%).

In 2014–2018, the share of import of agricultural and food products from the EU countries comprised 82.9–84.6%, in 2016 it was lowest 82.9% and in 2014 highest, making 84.6%, and in 2018, 83.8% (amounting to EUR 3228.8 million) (Fig. 2.6). The share of import from third countries (other countries) fluctuated from 15.4 to 17.1 In 2018 the share of import from third countries accounted for 16.2%, in 2017 for 15.7%, in 2014 for15.4%. In 2014–2018 the share of import from the Eurasian Economic Union countries (Russia, Belarus, Kazakhstan, Armenia, and Kirghizia) made 4.4–5.2% of the total import of agricultural and food products and 27.8–31.9% of the total import from third countries, in 2018 constituted, correspondingly, 5.2% of the total import and 31.9% of import from third countries. Import volumes from the Mercosur group of countries (Argentina, Brazil, Paraguay, Uruguay and Venezuela) reached 7.1% of the import value from third countries and 1.1% of the total value of import of agricultural and food products.

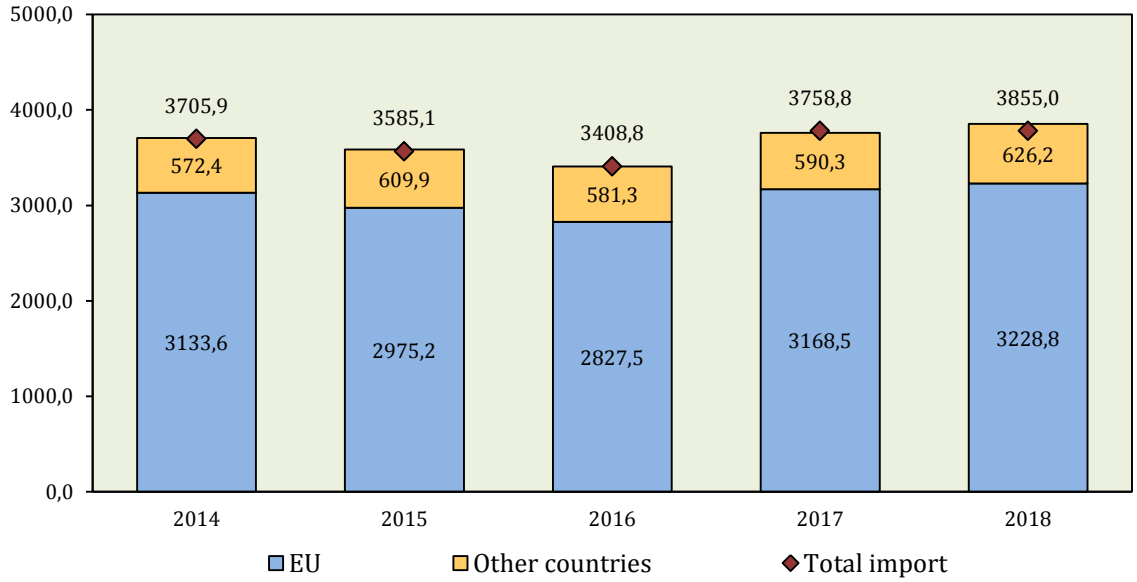
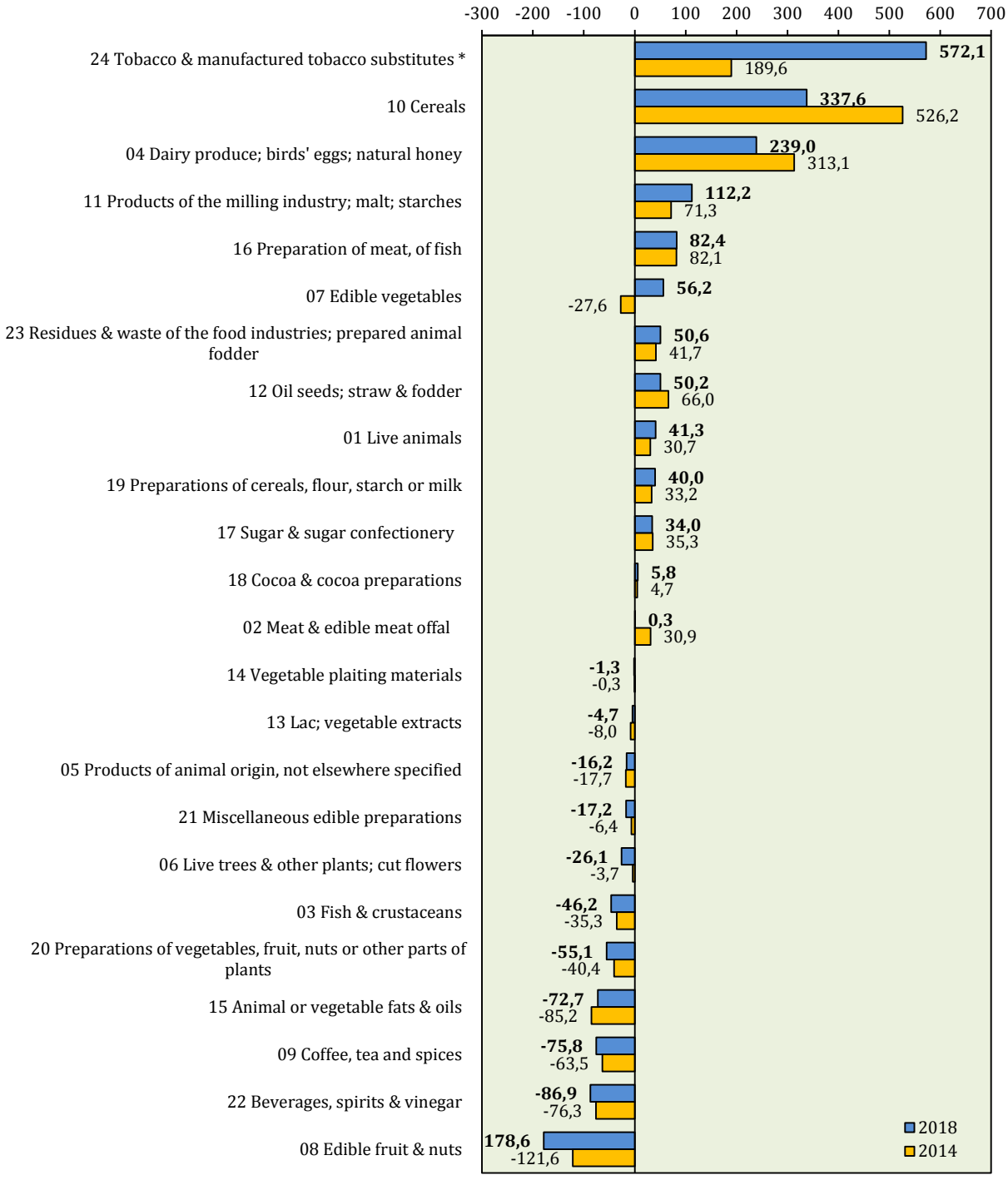


Fig. 2.6. Import of agricultural and food products by country group in 2014–2018, EUR mill.

Source: Statistics Lithuania.

In 2018, compared to 2017, import of agricultural and food products from the EU increased by 1.9% (by EUR 60.3 million more), while from Mercosur got decreased by 21% (by EUR 11.8 million less). Import from the EU countries increased by 21.7% (by EUR 35.7 million more). The major share of import from the EU countries in 2018 consisted of beverages, spirits and vinegar (EUR 406.8 million, 12.6% of the total value of import from the EU and 10.6% of the total import value of agricultural and food products). The second place belongs to fish and crustaceans (EUR 349.3 million), third to milk products, honey and eggs (EUR 287.6 million) and fourth to edible fruit (EUR 260.1 million). The major share of import from third countries during 2018 consisted of fish and crustaceans (for EUR 155.3 million), ranked second by import value – edible fruit and nuts (EUR 111.8 million), third – fats and oils (EUR 77.5 million) and fourth – beverages, spirits and vinegar (EUR 48.9 million). In 2018, the most substantial share of products was imported from Poland (16.8% of the total import value of agricultural and food products), Latvia (11%), the Netherlands (10.0%), Germany (7.5%), Sweden (7%), Spain (5.4%), Estonia (4.8%), Italy (4.3%), France (3.9%), and Russia (3.1%).

In 2018, export of agricultural and food products exceeded import (surplus) by EUR 1041.8 million. The highest surplus of foreign trade was established for products of 13 CN chapters (Fig. 2.7). The highest surpluses in 2018 were in trade of tobacco and tobacco products (EUR 572.1 million, increased by 72.5%), grain (EUR 337.6 million, decreased by 39.7%), milk and dairy products, eggs and honey (EUR 239.9 million, decreased by 12.1%). Surpluses were in trade in milling products, meat and fish products, edible vegetables, food industry residues, oil plants, live animals, products from cereals, sugar, cocoa and meat products. The highest deficits were in trade in edible fruit and nuts, beverages, spirits and vinegar, coffee, tea and spices.



* CN code and product group.

Fig. 2.7. Foreign trade balances of agricultural and food products in 2014 and 2018, EUR mill.

Source: Statistics Lithuania.

The biggest surpluses in 2018 was in trading with Russia (EUR 398.8 million), Japan (EUR 257.9 million), Latvia (EUR 172 million), Germany (EUR 149.7 million), Belarus (EUR 126.4 million) while the highest deficits – with Poland (EUR 233.3 million), the Netherlands (EUR 212.5 million), Spain (EUR 128.7 million), Sweden (EUR 82.6 million), and France (EUR 58.8 million).

Turnover of foreign trade in agricultural and food products in 2018 was EUR 8.0 billion, and, compared to 2017, increased by EUR 172.9 million. In 2016, turnover was EUR 7.8 billion, in 2015 – EUR 8.1 billion, in 2014 – EUR 8.4 billion. Turnover of foreign trade with the EU countries was EUR 6386.3 million, with the third countries EUR 2365.6 million, of which with Mercosur countries EUR 50.4 million, with the Eurasian Economic Union countries EUR 961.7 thousand. The most important partners of trade in agricultural and food products in 2018 were Poland (turnover EUR 1063 million), Latvia (EUR 1020.7 million), Germany (EUR 729.9 million), Russia (EUR 638.6 million), the Netherlands (EUR 560.3 million), and Sweden (EUR 458.5 million). Turnover of agricultural products with these countries accounted for 51% of Lithuania's total turnover of agricultural products.

In the reference period, the balance of foreign trade in agricultural and food products was positive and had a tendency towards increasing. It is expected that the similar growth will be also be retained in the short-term period. In the long-term period the CAP market regulation measures will have a big impact on the Lithuanian foreign trade balance.

3. Changes in production of agricultural and food products

3.1. Grain

Meteorological conditions. In 2018, weather conditions were unfavourable for agriculture and grain crops. In August–September 2017, due to the abundant precipitation in Lithuania, winter crops perished or in general sowing was not possible, whereas high temperature and a small amount of precipitation was characteristic of the spring and summer of 2018. According to the Lithuanian Hydrological Service data, the extreme drought, irrespective of its duration, was fixed from 8 June to 3 July 2018 in 24 Lithuanian municipalities: Akmenė, Alytus, Birštonas, Druskininkai, Elektrėnai, Jonava, Joniškis, Jurbarkas, Kaišiadorys, Kalvarija, Kazlų Rūda, Klaipėda, Kretinga, Lazdijai, Marijampolė, Mažeikiai, Pasvalis, Rokiškis, Šakiai, Šalčininkai, Širvintos, Trakai, Telšiai, Varėna district municipal territories. In some other 13 municipalities the dry period has reached the indicators of the dangerous meteorological phenomenon – the droughty period. Just several days lacked for announcing extreme drought in Kupiškis, Panevėžys, Šilutė, Skuodas, Rietavas and Vilkaviškis districts. The longest extreme drought, even for 25 days, persisted in Alytus, Marijampolė and Trakai districts, and the shortest, just for 1–2 days, in Šalčininkai, Širvintos and Telšiai country-side districts. By Order No. 3D-354 of 7 June 2019 by the Minister of Agriculture of the Republic of Lithuania, losses suffered by farms as a result of drought will be compensated in the case when the applicant who suffered from drought in 2018 lost more than 30% of the applicant's average annual 2015-2017 crop production. Due to the above-mentioned climate conditions in 2018, winter crops

sown were by 26.6% less and summer crops by 37.6% more than in 2017. Since summer crop productivity was lower, the crop harvest yielded in 2018 was by 21.2% lower.

Cultivation. Directorate-General for Agriculture and Rural Development (DG AGRI) presented the EU perspectives for cereal market until 2030. It is assumed that production should grow up to 325 million t (in 2018, 284 million t). This enhancement is stimulated by such factors like the increasing industrial utilisation of grain, an insignificant increase in the demand of feed grain, and export of grain. The higher growth of grain production in the EU will be limited by the potentially available land resources for grain production and the lower rate in the growth of grain yield. Grain purchase prices should remain rather stable, e. g., wheat price should reach about 180.0 EUR/t. Cultivation of rape should not be increase due to the policy pursued on the promotion of second generation biofuel production. Cultivation of protein crops in the EU will be stimulated by their increasing demand for feed, consumption by residents, as well as the favourable political environment and their growing productivity. In Lithuania, the area under cereals in 2018, compared to 2017, decreased by 4.2%, and, compared to the average of last five years, got increased by 1.2%. In 2018, the productivity of cereals was lower, compared to the average of last five years and to the last year, by 22.8% and 24.8%, respectively (Fig. 2.8).

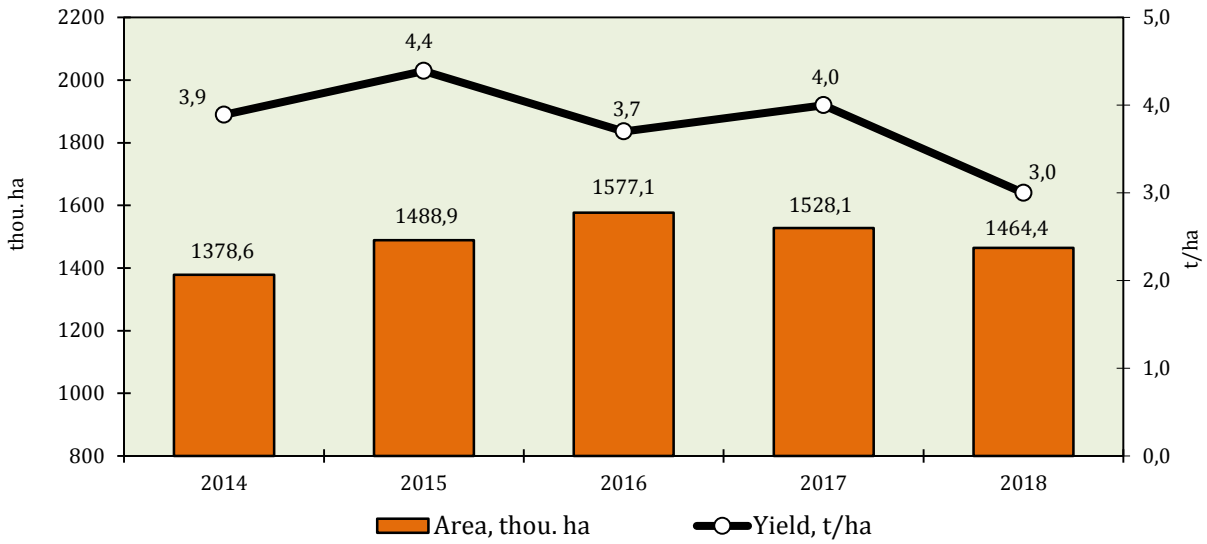


Fig. 2.8. Crop area and yield of grain crops in 2014–2018

Source: Statistics Lithuania.

In 2018, compared to 2014, areas under buckwheat (44.6%), oats (38.5%) and winter wheat (29.6%) substantially increased. Areas under spring (69.6%) and winter (46.2%) triticale, as well as under spring (44.4%) and winter (43.4%) rye decreased most substantially (Fig. 2.9).

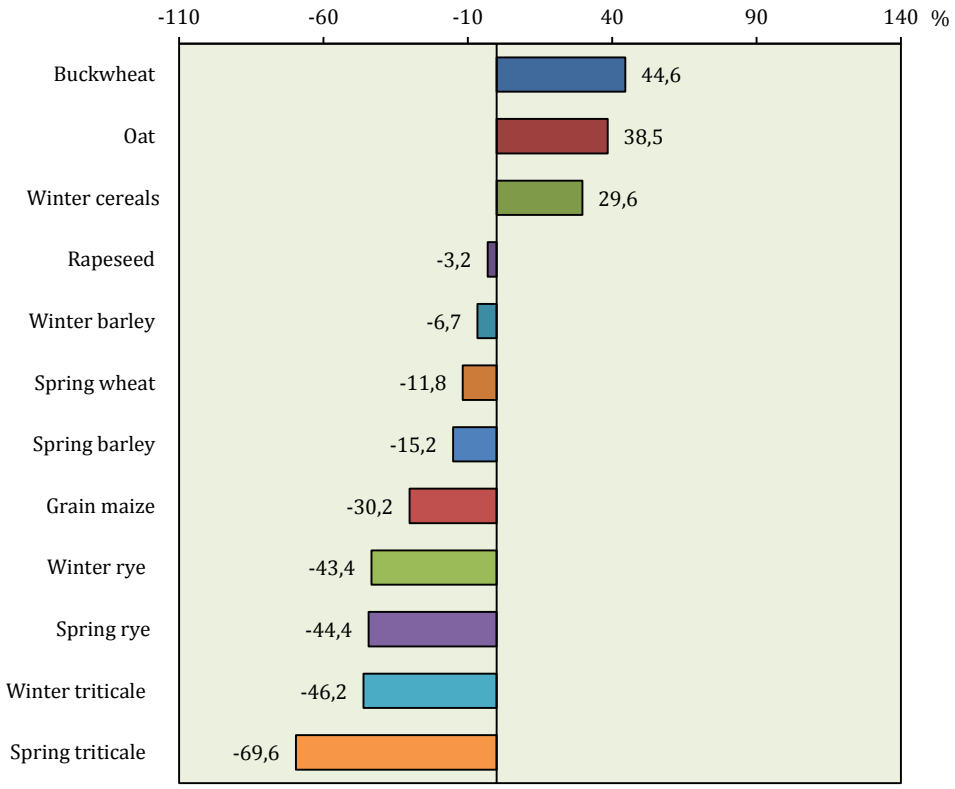


Fig. 2.9. Changes in grain crop areas in 2018 compared to 2014, per cent

Source: Statistics Lithuania.

In 2018, crops accounted for 86.7% of areas under grain crops. Areas under crops in 2018, compared to 2017, decreased insignificantly – just by 0.2%. Areas under winter crops accounted for 42.7% of the areas under crops, compared to 2017 – by 15.6 percentage points less. Wheat in 2018 accounted for 85.8% of the areas under winter crops, compared to 2014, their share increased by 13.1 percentage points.

According to Eurostat data, the average area under crops in the EU in 2018 had a tendency towards decreasing, i. e., compared to 2017, areas got reduced by 0.2%. Most significantly went down in Sweden (7.3%), Luxembourg (5.7%) and Ireland (4.2%), and the largest increases were found in Latvia (7.3%), Estonia (6.0%) and Bulgaria (5.1%).

The yield of crops in the EU in 2018 reached, on average, 5.3 t/ha and by 0.3 t/ha was lower than in 2017. The highest yield of crops was reached in Belgium (8.8 t/ha), the Netherlands (8.1 t/ha) and Ireland (7.1 t/ha), and the lowest – in Estonia (2.6 t/ha) and Cyprus (2.0 t/ha). The yield of wheat in 2018 in the EU reached, on average, 5.6 t/ha, i. e. by 0.5 t/ha was lower than in 2017. The highest wheat yield was fixed in Ireland and the Netherlands (8.8 t/ha each), and the lowest in Cyprus (1.7 t/ha). The yield of crops in Lithuania in 2018, compared to other EU countries, was low (3.2 t/ha) – we were just ahead of Latvia, Finland, Estonia and Cyprus. The yield of wheat in Lithuania in 2018 reached 3.7 t/ha, and it was higher than in Latvia, Estonia, Finland, Greece, Portugal and Cyprus. One of the reasons for the low yield in Lithuania is not so favourable conditions for crop production as in other EU countries; therefore, sorts cultivated in Lithuania are mostly winter resistant, though not productive. It is possible to assume that large farms of crops and rape are more productive than small farms. E. g., according to the 2017 Lithuanian FADN data, the yield of wheat in the farms of economic

size of EUR 250 thousand was by 37.7% lower than in the farms of economic size of EUR 8–15 thousand.

The gross yield of grain crops in Lithuania in 2018 was by 24.8% lower than in 2017 and by 22.1% lower than in 2014. In 2018, compared to 2014, the yield of almost all grain crops was lower, except buckwheat and maize, the yield of which was somewhat higher by 6.3% and 7.9%, respectively (Table 2.9).

The lowest yield of crops by counties in 2018 was established in Telšiai county (2.0 t/ha), and highest in Šiauliai county (4.3 t/ha). The most considerable reduction in the yield of winter crops was fixed in Telšiai county and of summer crops in Alytus county, 2.4 t/ha and 1.6 t/ha, respectively. The highest yield of winter crops was established in Šiauliai county (5.1 t/ha) and of summer crops in Marijampolė county (3.2 t/ha). According to the calculated variation coefficient, the lowest variations in the yield among the counties in 2018 were established for summer rape (9.2 %); the highest variations were of spring rye (57.1%). In 2018, compared to 2017, the most substantial decrease in the yield of winter crops was fixed in Tauragė and Telšiai counties, 44.4% and 40.5%, respectively. The most considerable reduction in the yield of summer crops in the same period was established in Telšiai and Klaipėda counties, by 35.8% and 31.9%, respectively.

Table 2.9. Yield of grain crops in 2014–2018, t/ha

Kind of grain crops	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Grain crops	3,89	4,39	3,69	4,03	3,03	-22,1
cereals	3,98	4,56	3,86	4,23	3,18	-20,1
winter cereals	4,35	5,33	4,49	4,95	4,07	-6,4
wheat	4,81	5,71	4,75	5,23	4,30	-10,6
triticale	3,36	4,08	3,42	3,38	2,79	-17,0
rye	2,26	2,79	2,38	2,44	2,08	-8,0
barley	4,11	4,40	4,12	4,11	3,43	-16,5
spring cereals	3,75	3,69	3,04	3,15	2,51	-33,1
wheat	4,31	4,21	3,42	3,51	2,73	-36,7
barley	3,80	4,00	3,13	3,65	2,72	-28,4
triticale	3,12	3,08	2,56	2,51	2,19	-29,8
oat	2,42	2,55	2,19	2,58	1,77	-26,9
buckwheat	0,95	1,00	1,15	1,10	1,01	6,3
grain maize	6,06	4,81	6,94	5,74	6,54	7,9
other cereals	1,37	0,97	0,77	0,77	0,90	-34,3
dry pulses grain	2,20	2,29	2,04	2,09	1,53	-30,5
Rapeseed	2,33	3,13	2,60	3,00	2,11	-9,4

Source: Statistics Lithuania.

The harvest of grain in 2018 amounted to 4379.4 thou. t (Table 2.10). The harvested yield of cereals was by 24.3% lower than in 2017 and by 17.7% lower than in 2018. Harvest reduction, compared to 2017, was due to unfavourable climate conditions; therefore, the average yield of grain was lower and the sown cereal area was smaller. The major part of the harvest of grain crops (91.3%) consisted of crops, of which 54.9% was winter crops. Winter wheat accounted for 90.7 of the harvest of winter crops, compared to 2014, this part has increased by 10.2 percentage points. In 2018, comparing to 2014, the harvest of legume crops for grain increased 3.2 times. The harvest of rape in the period in question decreased by 13.6%, and, comparing to 2017, was by 20.2% lower. Crops grown in the farmers' and family farms in 2018 accounted for 79.9% of the total harvest of crops, and rapeseed made up 77.3% of the total harvest of rapeseed.

Table 2.10. Harvest of grain crops in 2014–2018, thou. t

Kind of grain crops	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Grain crops	5324,1	6521,4	5757,1	5781,5	4379,4	-17,7
cereals	5123,2	6066,7	5020,8	5074,2	3999,5	-21,9
winter cereals	2120,2	3772,7	3370,6	3560,0	2197,0	3,6
wheat	1707,8	3271,7	2982,6	3245,3	1993,1	16,7
triticale	291,9	379,1	292,1	222,5	131,8	-54,8
rye	83,5	106,6	76,4	62,5	43,3	-48,1
barley	37,0	15,3	19,5	29,7	28,8	-22,2
spring cereals	3003,0	2294,0	1750,2	1514,2	1802,5	-40,0
wheat	1522,8	1108,6	861,9	672,1	845,8	-44,5
barley	981,5	796,2	525,7	490,0	590,8	-39,8
triticale	103,3	89,4	39,3	25,0	21,5	-79,2
oat	183,8	163,4	155,1	195,9	0,7	-61,1
buckwheat	35,6	36,5	49,9	53,2	182,4	-0,8
mixed cereals	58,0	42,1	30,9	20,3	53,4	50,0
grain maize	115,0	56,4	86,2	57,0	20,2	-65,2
other cereals	1,2	0,2	0,1	0,1	87,6	-23,8
dry pulses grain	200,9	454,7	636,3	707,3	636,3	3,2*
Rapeseed	501,5	512,2	399,4	543,5	433,5	-13,6

* Times.

Source: Statistics Lithuania.

Purchase of grains. In 2018, the amount of cereal grains purchased from cultivators in Lithuania was by 19.0% lower than in 2017, of which the amount of rye by 43.6%, triticale by 39.3%, and oats by 22.9%. Wheat accounted for 96.2% of the total amount of purchased grains, Class II food wheat for 49.7% of the total amount of the

purchased wheat. In 2018, compared to 2014, purchase of feed barley, Class II food and feed wheat and buckwheat went on increasing. The most substantial decrease was found in the purchase amounts of malt barley, maize and triticale (Table 2.11).

Table 2.11. Purchase of grains in 2014–2018, thou. t

Kind of grain	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Grain, total	3240	3428	4082	4118	3334	2,9
wheat	2323	2484	3578	3582	3207	38,1
food wheat, class I	838	686	554	491	458	-45,3
food wheat, class II	865	1158	918	1604	1593	84,1
feed wheat	242	375	328	300	263	8,6
rye	29	39	32	38	21	-26,1
food rye, class I	16	22	14	18	15	-7,3
barley	573	439	285	266	404	-29,4
food barley	115	86	44	38	80	-30,3
malt barley	345	109	85	68	71	-79,5
feed barley	112	243	156	161	253	2,3*
oats	32	29	19	50	39	20,5
buckwheat	11	6	20	15	18	67,1
triticale	177	217	210	146	89	-50,0
maize	44	16	14	12	11	-74,3
Rapeseed	406	441	334	436	348	-14,2

* Times.

Sources: Data of Statistics Lithuania and Agricultural and Food Products Market Information System.

The purchase price for grains in Lithuania in 2018 was by 11.8% higher than in 2017 and by 14.0% higher than the average purchase price in 2014. In 2018, the purchase price for oat, feed barley and triticale, comparing to the previous year, increased most substantially, whereas the lowest price was for buckwheat (Table 2.12).

According to AIRBC data, in 2018, the average export price for I Class wheat in France reached 189.7 EUR/t, and was by 12.7 % higher than in 2017. Price fluctuation was from 163.6 EUR/t in January to 212.1 EUR/t in December. In 2018, the average export price for Class B wheat in Germany was higher by 10.6 % (194.3 EUR/t) than in the previous year. The highest price was observed in December (214.5 EUR/t), and lowest in January (170.0 EUR/t).

Table 2.12. Average purchase price of grains in 2014–2018, EUR/t

Kind of grain	2014	2015	2016	2017	2018	Change 2018 compared to 2014, %
Grain, total	150	157	141	153	171	14,0
wheat	154	160	133	152	171	11,0
food wheat	157	162	145	155	172	9,6
rye	117	114	110	124	141	20,5
barley	140	144	128	138	171	22,1
malt barley	172	167	158	165	185	20,1
feed barley	134	137	115	129	161	7,6
triticale	126	124	112	123	150	44,0
oats	100	121	122	115	144	5,5
buckwheat	263	415	389	269	189	19,0
maize	146	144	123	142	154	-28,1
Rapeseed	293	341	365	357	355	21,2

Source: Statistics Lithuania.

According to the EC data, the average purchase price of food wheat in the EU reached 176.8 EUR/t and was by 8.4% higher than in 2017. In 2018, food wheat prices fluctuated from 145.4 EUR/t (in Hungary in July) up to 220.0 EUR/t (in the United Kingdom in August). In 2018, the average price for food wheat in Lithuania reached 167.7 EUR/t; it fluctuated from 156.5 EUR/t (in January) to 183.3 EUR/t (in December).

Processing. The national grain processing enterprises in 2018, compared to 2014, manufactured bigger amounts of wheat flour (47.4%) and prepared mixed animal feed (21.7%). Comparing the 2018 production results with the result of the previous year, a decrease is seen in the manufacture of pasta (16.2%), prepared mixed animal feed (8.0%), cereal groats (7.9%) rye flour (3.9%) and fresh rye bread (0.8%) (Table 2.13).

Table 2.13. Production of grain products in 2014–2018, thou. t

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Flour	394,8	482,5	510,1	542,9	565,0	43,1
wheat	370,8	457,6	490,3	523,6	546,4	47,4
rye	23,7	24,7	19,5	19,1	18,4	-22,6
Cereal groats	24,0	20,8	24,1	24,5	22,6	-6,0
Fresh bread	126,5	123,8	127,2	115,6	123,8	-2,2
rye bread	51,2	49,5	49,1	49,5	49,1	-4,1
other bread	75,3	74,3	78,1	66,1	74,7	-0,9
Pastry and confectionery	24,7	24,2	22,7	23,6	23,7	-4,0
Pasta	12,0	14,1	12,4	14,2	11,9	-0,8
Prepared mixed animal feed	494,2	506,4	548,7	653,6	601,3	21,7

Source: Statistics Lithuania.

In 2018, compared to 2017, the average wholesale prices of grain products have changed unevenly and the following went on increasing: rye flour (4.9%), confectionery products (4.6%), other bread (4.1%), fresh bread (3.2%), wheat flour (2.7%) and rye bread (1.5%), whereas lower prices were for buckwheat (21.6%) and semolina (18.1%). In 2018, compared to 2014, prices substantially increased for confectionary products (27.1%) and wheat groats (8.9 %), while most considerable decrease was noted for semolina (13.6%) and wheat flour (9.4%) (Table 2.14).

Table 2.14. Average wholesale prices of grain products in 2014–2018, EUR/t

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Wheat flour	315	296	286	278	285	-9,4
Rye flour	246	226	226	232	243	-1,1
Wheat groats	313	349	317	340	341	8,9
Semolina	417	381	376	440	360	-13,6
Buckwheat groats	617	915	935	851	667	8,1
Fresh bread	894	863	858	878	906	1,3
Rye bread	915	871	839	858	871	-4,8
Other bread	879	858	870	892	928	5,6
Pastry and confectionery	2653	2796	3012	3225	3373	27,1

Source: Statistics Lithuania.

In 2018, comparing with 2014, lower prices on the retail market were for highest-grade wheat flour (6.4%) and wheat loaf of bread (3.0%), whereas higher prices were for buckwheat (27.8%) and rye bread (7.9%) (Table 2.15). When comparing the 2018 retail prices with 2017 prices, it is seen that prices were higher for rye bread (5.0%), 200 g packed biscuits from wheat flour and 400 g oatmeal without additives (1.5% each), rye-wheat bread (1.0%) and wheat loaf of bread (0.7%).

Table 2.15. Average retail prices of grain products in 2014–2018, EUR/kg

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Wheat flour, best quality	0,70	0,69	0,68	0,66	0,66	-6,4
Rye bread	1,48	1,48	1,50	1,52	1,60	7,9
White bread made from wheat flour	1,62	1,60	1,60	1,56	1,57	-3,0
Buckwheat groats	1,53	1,76	2,00	1,97	1,96	27,8
Pasta*	0,69	0,70	0,71	0,69	0,69	0,0

*500 g.

Source: Statistics Lithuania.

Foreign trade in grains and grain products. According to the preliminary data of the Directorate-General for Agriculture and Rural Development (DG AGRI), in 2018 the EU exported to third countries 29.9 million t of crops, including 19.0 million t of soft wheat. The EU main exporters of soft wheat in 2018 were France, Romania, Germany and Poland, their export (by volume) made, respectively, 46.3%, 18.9%, 10.8% and 6.8% of the total export of soft wheat. The main soft wheat export markets were Algeria (27.5%), Saudi Arabia (12.5%), Egypt (9.0%), and Morocco (5.4%).

Lithuania in 2018 exported cereal grains for EUR 418.3 million. In 2018, compared to 2017, by 31.9% less, and the average export price (195.8 EUR/t) was higher by 9.2%. The amount of cereal grains in terms of quantity reached 2136.0 thou. t, in 2018, compared to 2017, by 37.6% less. Of cultivated grain crops, the largest share of export consisted of wheat and meslin, which accounted for 79.1% of the total export of grain crops. In the mentioned period, share of export of these crops got reduced by 8.3 percentage points; the export value reached EUR 320.2 million. Export was increasing of rye (34.2 %), barley (30.5%) and oats (20.1%), and decreasing of triticale (60.2%), maize (24.3%) and buckwheat (13.4%). The export value of cereals in the structure of cereals and milling products made up 75%, and that of milling products 25%. In 2018, compared to 2017, the export value of cereal milling products reached EUR 139.12 million and was insignificantly higher (by 0.1%) than in 2017, and the export value of milling products was slightly lower (by 0.8%). In 2018, compared to 2017, the lower export was of wheat flour (32.3%), rye flour (29.3%) and cereal groats (24.7%) (Table 2.16). Export of flaxseed reached 10.9 thou. t and was 2.2 times higher than in 2017. The average export price of flaxseed (351.9 EUR/t) was by 13.0% less, compared to 2017. Rapeseed export amounted to 190 thou. t, rapeseed oil 26.4 thou. t; their export in 2018, compared to 2017, decreased by 16.2% and 24.3%, respectively. Comparing export of cereal grains and their products in 2018 with 2014, it is seen that export of rye, rye flour and milling products went on increasing, while export of other cereals and rapeseed decreased (Table 2.16).

Table 2.16. Exports of cereal grains and their products in 2014–2018, thou. t

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Cereal grains	3088,2	3164,8	3510,3	3424,2	2136,0	-30,8
of which:						
wheat	2516,0	2398,6	3257,9	2991,5	1689,6	-32,8
rye	17,8	27,3	19,6	28,5	38,3	2,2*
barley	320,5	403,0	45,4	186,6	243,4	-24,1
Rapeseed	279,2	419,2	193,0	227,8	190,9	-31,6
Milling products	206,0	251,4	251,0	287,7	285,5	38,6
of which:						
wheat flour	14,0	13,6	12,7	17,5	11,9	-15,0
rye flour	0,6	1,2	0,9	1,5	1,1	83,3
cereal groats	5,1	4,5	4,0	3,7	2,8	-45,1

* Times.

Source: Statistics Lithuania.

In 2018, export of Lithuanian cereal grains to the EU member states comprised 1025.0 thou. t, i. e. 48.0% of the total export of these products. The major share of export in 2018 was to the following EU countries: Latvia 38.7%, Spain 19.0% and Germany 12.8%. Changes of export to the above-mentioned countries, compared to 2017, were as follows: to Latvia increased by 4.9 percentage points, to Spain decreased by 2.3 percentage points, to Germany increased by 4.9 percentage points. Comparing to 2017, the average price of export to the EU countries was by 16.3 EUR/t higher (198.4 EUR/t). In 2017, export of cereal grains to other third countries constituted 1111.1 thou. t (by 42.3% less than a year ago), of which most of all to Saudi Arabia 57.7%, Nigeria 12.5% and Turkey 10.7%. Export variations to other above-mentioned countries, compared to 2017, were as follows: increased to Saudi Arabia by 23.1 percentage points, to Nigeria by 5.1 percentage points and decreased to Turkey by 26.1 percentage points. Price of export of cereal grains to third countries in 2018, compared to 2017, increased by 16.2 EUR/t (was 193.1 EUR/t).

The largest portion of milling products (76.7%) were exported to the EU countries, and, compared to 2017, this share has increased by 4.1 percentage points. The main export markets in 2018 were Poland, Finland and Latvia, export, respectively, accounted for 42.9%, 14.4% and 10.8% of the total milling products exported to the EU.

Import of cereal grains to Lithuania in 2018, compared to 2014, increased by 8.4% – up to 382.4 thou. t, and import of milling products increased by 0.8% (Table 2.17). In 2018, compared to 2017, import of cereal grains increased by 58.9%, the average price of import of cereal grains (211.1 EUR/t) was by 15.1 EUR/t lower than in 2017. The largest portion of cereals import consisted of maize (49.2%), wheat (19.2%) and barley (16.0%). 64.0% of cereals was imported from third countries, mostly from the Ukraine (56.3%) and Russia (37.7%). In 2018, import of milling products was by 8.0% lower than in 2007. Import of milling products increased in price and, on average, the price paid was 416.6 EUR/t, or by 26.7 EUR/t higher than in 2017. 95.4% of the products were imported from the EU countries, mostly from Poland and Latvia, their share of export from the EU countries making 51.4% and 32.3%, respectively.

Table 2.17. Imports of cereal grains and their products in 2014–2018, thou. t

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Cereal grains	352,9	204,7	182,8	240,6	382,4	8,4
of which:						
wheat	119,9	67,8	84,0	35,7	73,4	-38,8
rye	13,9	8,1	10,2	16,0	15,2	9,4
barley	37,3	8,6	6,1	55,7	61,3	64,3
Milling products	64,2	62,5	63,6	70,3	64,7	0,8
of which:						
wheat flour	31,7	32,5	34,5	40,7	34,8	9,8
rye flour	6,2	3,8	9,4	6,0	5,8	-6,5
cereal groats	3,2	2,9	4,0	4,3	5,1	59,4

Source: Statistics Lithuania.

In 2018, the EU imported from third countries 27.9 million t of cereals, of which mostly maize 21.0 million t. The EU main maize importers in 2018 were Spain, the Netherlands, Italy and Portugal, their import, respectively, in terms of quantity comprising 31.9%, 19.3%, 8.8% and 7.9% of the total import of maize. The main exporting countries to the EU were the Ukraine (61.4%), Brazil (21.1%) and Canada (7.4%).

State aid and key economic indicators of farms. In 2018, the basic direct payments (63.14 EUR/ha) have been paid for areas under cereals and rape that are granted to applicants for UAA areas, irrespective a plant kind. Cultivators of cereals and rape could additionally receive payments for the first 30 ha of the UAA – 57.88 EUR/ha and the greening payment of 49.84 EUR/ha. If the cultivator of cereals and rape is a young farmer (up to 40 years of age) who has registered his holding not earlier than 5 years ago, he was granted the payment of 47.92 EUR/ha. The State started paying the coupled payments to farmers since 2015 for protein crops which in 2018 amounted to 50.14 EUR/ha, and since 2017 the coupled payments of 14.21 EUR/ha were started to be paid for crop areas sown with certified seed. For crop areas where the measure Organic farming is being implemented the payment for cereals of 238.0 EUR/ha was paid, for feed grains 247.0 EUR/ha, and cereals, perennial grasses for seed 298.0 EUR/ha. Compensation amounting to EUR 8.5 million was granted to Lithuanian farms that suffered losses from drought in 2018.

According to the data of the EU FADN respondent farms, in 2017 the value of production generated in Lithuanian cereals and rape farms reached EUR 71947, by 19.7% higher than in 2016, and compared to the production obtained in the EU cereals and rape farms was by 9.8% higher. In 2017 in Lithuanian cereals and rape farms EUR 748.0 was granted for the gross production per hectare of utilised agricultural area, and, as compared to the corresponding indicator of cereals and rape farms in Denmark, where the latter are leaders in the EU, by 3.1 times less.

In Lithuanian cereals and rape farms, in 2017, net value added created per farm, on average, made EUR 29228. Share of support per farm, excluding on investments, reached, on average, 55.9% of that value; in the EU, respectively, 61.4%. By economic size class, the value added created on cereals and rape farms is increasing with the increase of the farm; therefore, the share of support in the largest farms, excluding on investment, was smallest – 31.9% (Fig. 2.10).

In 2017, the average net value added per annual work unit on Lithuanian cereals and rape farms made EUR 17473 – 1.8 times more than, on average, in farms of all types; however, by 22.2% less than, on average, on cereals and rape farms in the EU (Fig. 2.11).

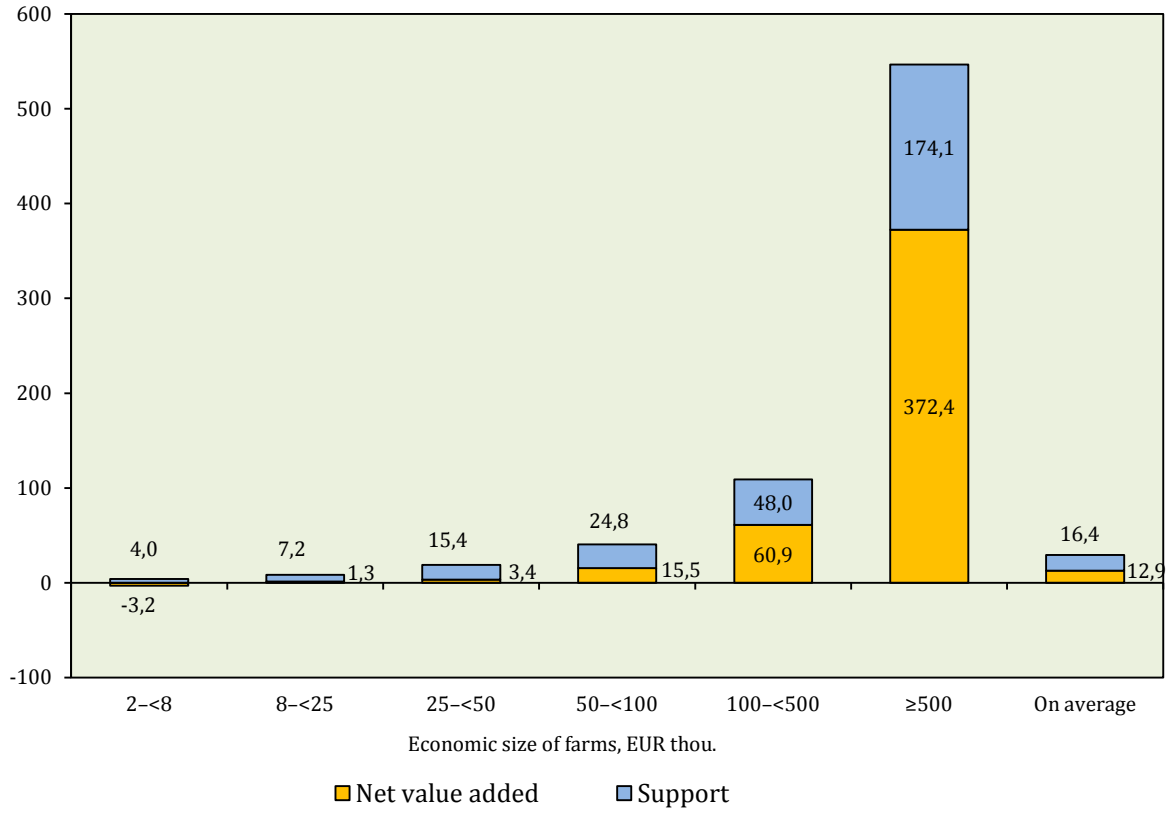


Fig. 2.10. Farm net value added (excl. support) and support (excl. on investment)on specialist cereals, oilseeds, protein crops farms by economic size class in Lithuania in 2017, EUR thou.

Source: EU FADN data.

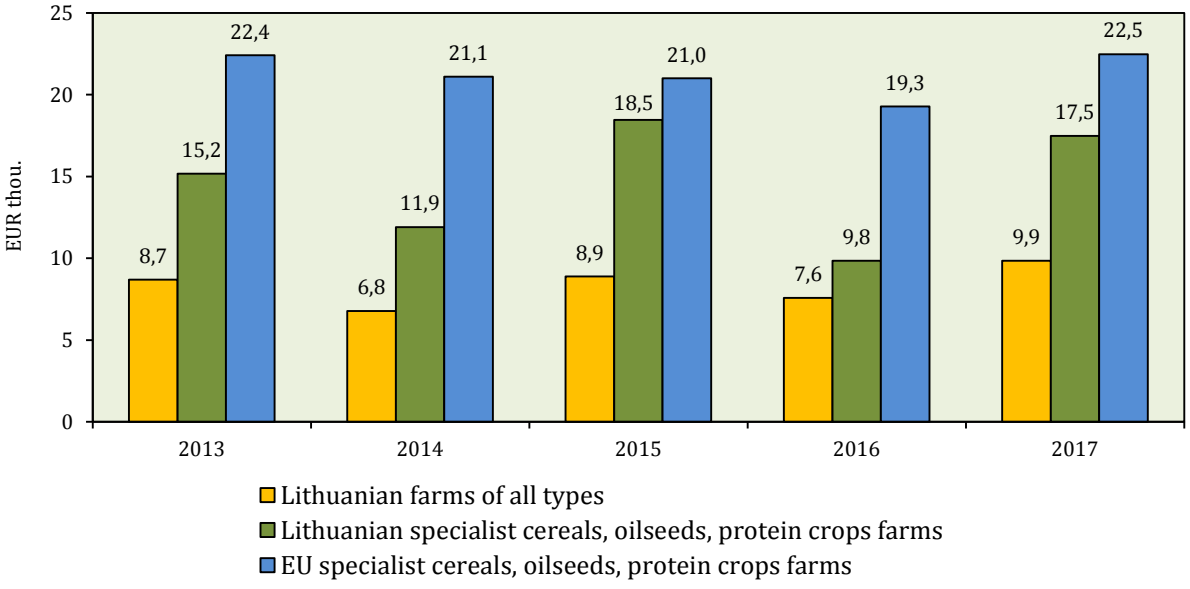


Fig. 2.11. Farm net value added per annual work unit in Lithuania and EU in 2013–2017, EUR thou.

Source: EU FADN data.

The net farm income per family AWU on cereals and rape farms in Lithuania in 2017 constituted EUR 18895.9 – 2.2 times more than in 2016 and 1.9 times more than, on average, in all Lithuanian farms. This income, comparing with the average on the EU cereals and rape farms, was by 19.3% higher. It was impacted by the lower expenditure on external factors (lease, wages for hired employees and interest) in Lithuania than the EU average. Taking into account the economic size of cereals and rape farms, on average, within the period of 2013–2017, the net income of the Lithuanian cereals and rape farms differed insignificantly from the average of the EU cereals and rape farms in groups up to EUR 100 thousand, and was higher in farms from EUR 100 to 500 thousand and farms larger than EUR 500 thousand, respectively, by 62.0% and 45.0% (Fig. 2.12). Estimating the net income, generated in cereals and rape farms per family AWU, with income in other sectors, i. e. with the average wages in the country, it, on average, in the period of 2013–2017, was lower in economic size farms with EUR 25 thousand.

In Lithuanian cereals and rape farms, assets accumulated during the period of 2013–2017, on average, amounted to EUR 203.5 thousand, i. e. 2 times lower than, on average, in the EU cereals and rape farms. Within the period in question, EUR 4.5 of the total assets in cereals and rape farms equaled one debt EUR, in the EU, on average, amounted to EUR 7.1 (Fig. 2.13). The value of the debt-to-the total asset ratio in cereal and rape farms was highest in the smallest farm size classes, this witnessing that they suffered the lower financial risk.

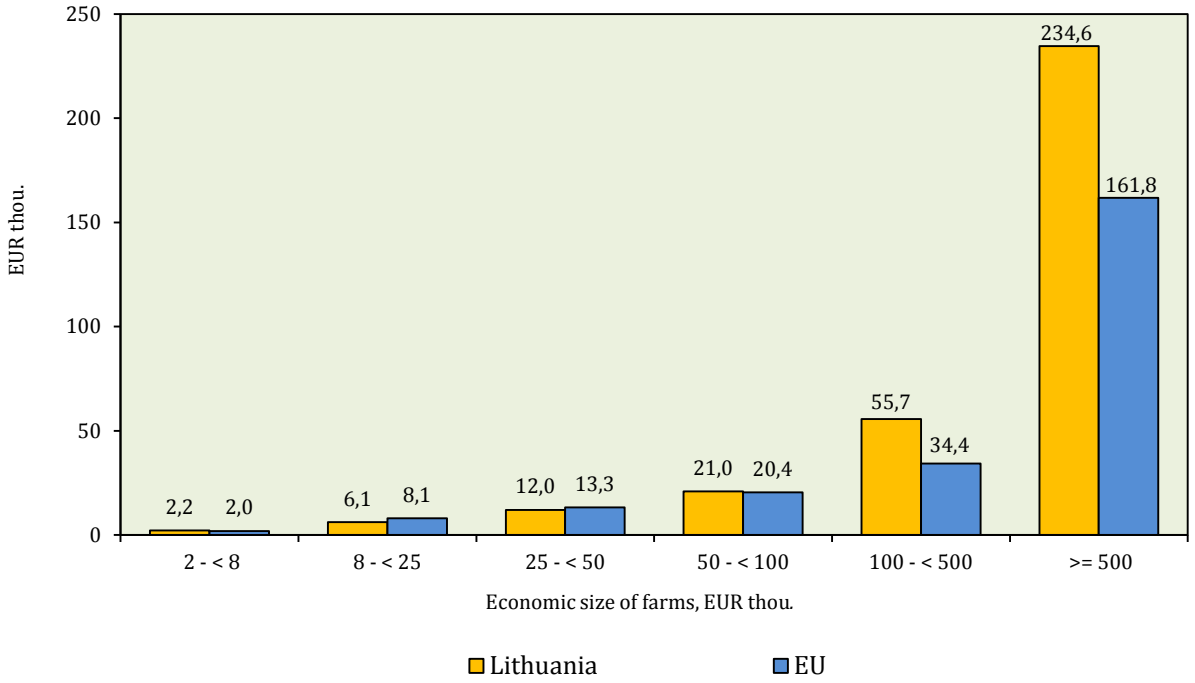


Fig. 2.12. Family farm income per family annual work unit on specialist cereals, oilseeds, protein crops farms by economic size class in Lithuania and EU on average over 2013–2017, EUR thou.

Source: EU FADN data.

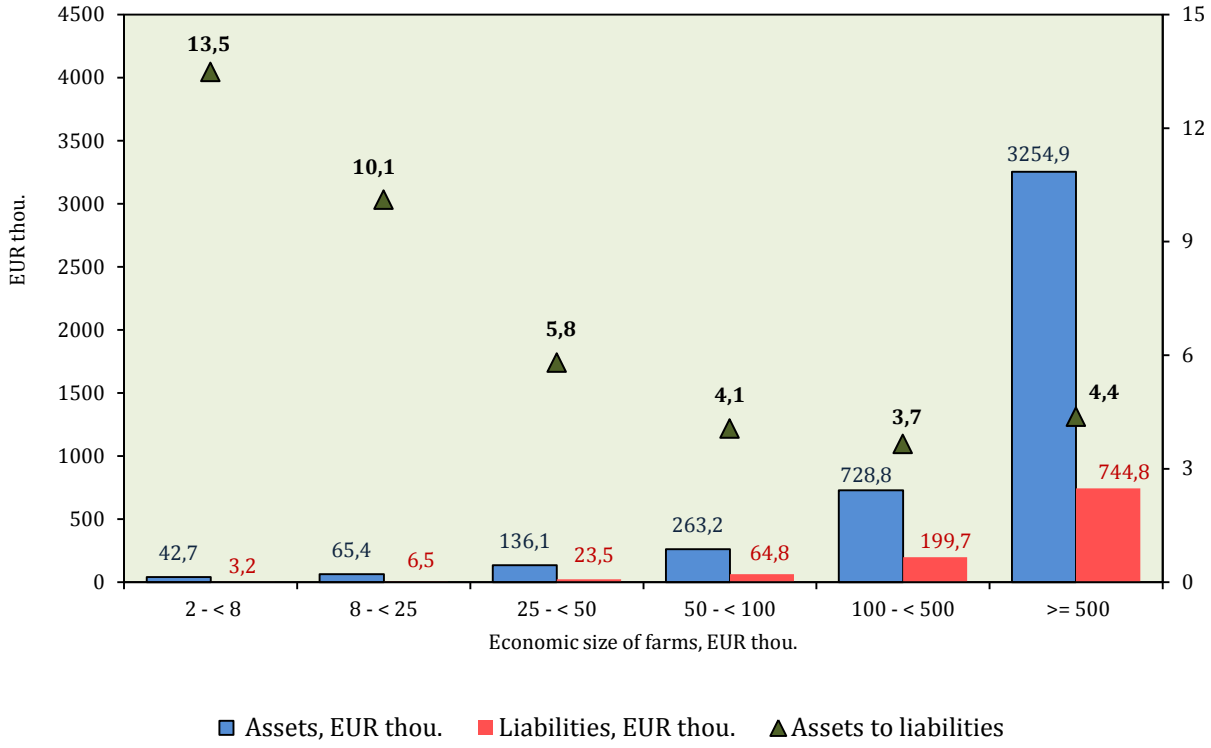


Fig. 2.13. Total assets and total liabilities on specialist cereals, oilseeds, protein crops farms by economic size class in Lithuania on average over 2013–2017

Source: EU FADN data.

In 2017, the share of land, orchards and quota value on cereals and rape farms accounted for 31.1% of the total assets, and, compared to 2013, this share increased by 9.4 percentage points. The share of agricultural machinery accounted for 27.2% of the total assets, and, compared to 2013, this share declined by 9.2 percentage points.

Summarising an economic analysis of cereals and rape farms, it is possible to state that these farms by production per hectare are behind the EU leaders and net value added created in these farms is lower than in the EU. With cereals and rape farms increasing by economic size, their created net value added increases. Viability of these farms depends to a lesser extent on the support obtained. In cereals and rape farms of economic size from EUR 100 thousand, the net income per family annual work unit, is significantly higher than of the respective EU farms, and in farms of economic size up to EUR 25 thousand, this income has not reached the average wages in the country.

3.2. Milk

The share of milk production in the total agricultural production of Lithuania in 2014–2017 has been constantly shrinking: from 16.3% in 2014 to 14.1% in 2017. Milk production share in the total agricultural production went on decreasing due to both the drop in milk production volumes and the declining purchase prices, especially in

2015–2016. The commodity milk production that has been increasing until 2015, from 2016 to 2018 also each year went on decreasing. Raw milk purchase in 2018, compared to 2015, has dropped by 5.2%. Since raw milk was lacking for milk processing industry, the record raw milk amount of all times was imported in 2018 – 448 thou. t. This accounted for 25.6% of milk processed in the milk industry.

The Lithuanian milk processing industry sales during the period of 2014–2018 fluctuated in dependence on the global milk product prices. In 2018, compared to 2014, they increased just by 0.6% and made EUR 966 million. The larger portion of the manufactured production was sold on foreign markets, in 2018 making 54%. The sales of the Lithuanian milk producers on the domestic market within the period in question went up by 11.6%; however, with import increasing more rapidly, their share on the total milk product internal market dropped from 78.7% in 2014 to 75.7% in 2018.

Milk production and purchase. In 2018, the milk yield amounted to 1515 thou. t, of which 90% was purchased for processing (Table 2.18). In comparison with 2017, milk production in 2018 decreased by 3.5%, and, compared to 2014, got reduced by 15.6%. Liquid milk purchase during 2018 decreased by 2.7% and during five years by 5.1%.

Table 2.18. Milk yield and purchase in 2014–2018, thou. t

Indicators	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Milk yield	1795,1	1738,5	1627,7	1570,7	1515,0	-15,6
Milk purchase						
actual fat content	1435,5	1438,0	1411,8	1401,5	1363,0*	-5,1
basic indicators**	1730,6	1738,6	1730,0	1719,4	1669,9	-3,5

* 4,17 % *milk fat content,* 3,33 % *protein content.*

** 3,4 % *milk fat content*, 3,0 % *protein content*.

Sources: Žemės ūkis ir aplinkosauga 2017. Vilnius: Lietuvos statistikos departamentas, 2018. ISBN 978-9955-797-32-6; AIRBC data.

74.5% of milk in 2017 was produced on farmers' farms and family farms. During the analysed period, however, the share of agricultural companies and enterprises has been increasing: in 2014, the agricultural companies and enterprises produced 20.1% of milk and in 2017 – 25.5%.

Raw milk purchased in Lithuania is not enough for the processing enterprises; therefore, some portion of raw milk is imported from other countries. Import of raw milk in 2018 reached 447.8 thou. t – by 10.2% more than in 2017. Compared to 2014, import of raw milk in 2018 has increased by 6.2%. Raw milk is imported from Latvia (68.0% of milk imported in 2018), Estonia (31.4%) and 0.6% from Poland. The average price of imported raw milk per tonne in 2018 was EUR 313.

During 2018, exports of raw milk amounted to 61.5 thou. t – by 4.3% more than in 2017 and by 29.9% less than in 2014. A decline in exports was due to the increased demand of raw milk on the local market. The major portion of raw milk (87.3%) in 2018 was exported to Poland, some 12.7% to Latvia. The average price of the exported raw

milk was 312 EUR/t. The foreign trade balance of raw milk during the entire period was negative: in 2014 import was by 269 thou. t higher than export, and in 2018 by 386.3 thou. t.

In 2018, compared to 2014, the milk composition indicators have increased: in 2018 the average purchased milk fat content was 4.17%, protein content 3.33%, and in 2014 fat content reached 4.14% and protein content 3.27%. In 2014, 97.5% and in 2018, 96.5% of the total purchased milk complied with the EU veterinary and hygiene requirements.

The raw milk purchase price from the beginning of 2014 until the middle of 2016 went on dropping and only from the second half of 2016 began increasing. In 2017–2018 the purchase price of milk of basic indicators has fluctuated. In 2018, it reached 230 EUR/t (Fig. 2.14). As compared to 2014, the purchase price of basic indicators has dropped by 0.9%. The average price for natural raw milk in 2018 was 282 EUR/t.

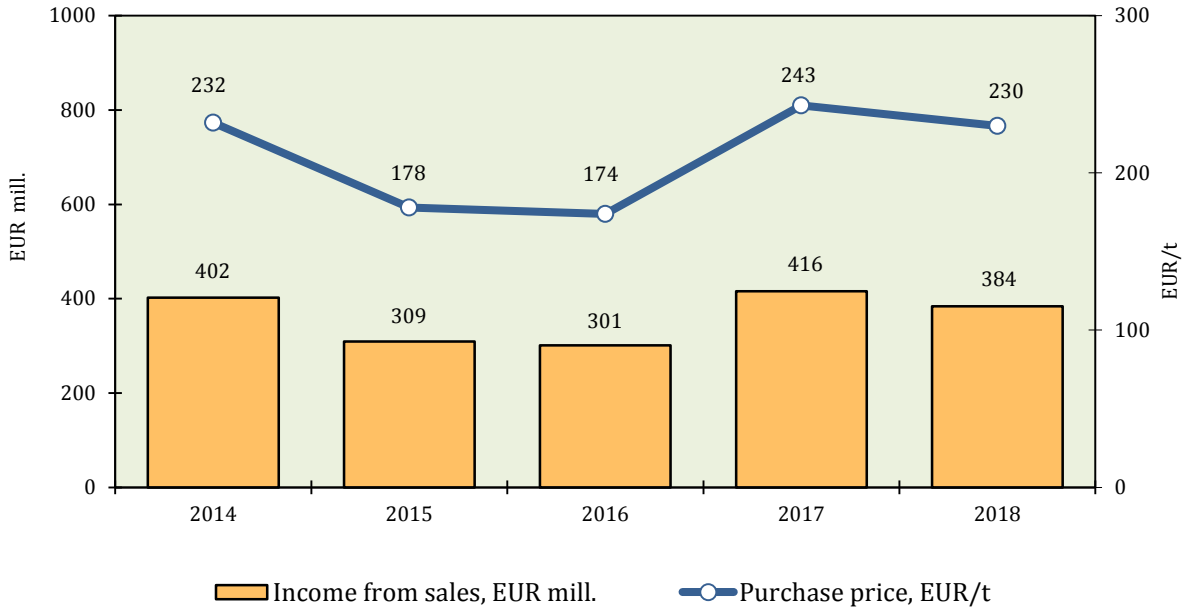


Fig. 2.14. Producer price of milk of basic indicators and income from sales in 2014–2018

Sources: Lietuvos žemės ūkis ir aplinkosauga 2017. Vilnius: Lietuvos statistikos departamentas, 2018. ISSN 2029-3658; AIRBC data.

Tendencies of variation in milk purchase prices were similar to those as in other EU countries, whereas the range of their fluctuations in Lithuania was more abrupt and more profound. The purchase price of milk (with actual fat content) in Lithuania in the analysed period was lowest in the EU, except the year 2017, when Portugal was left behind, and in 2018, when the lowest milk purchase price was shared with Latvia. In Lithuania the purchase price of milk (with actual fat content) reached 282 EUR/t and accounted for 82.7% of the average purchase price in the EU (Fig. 2.15).

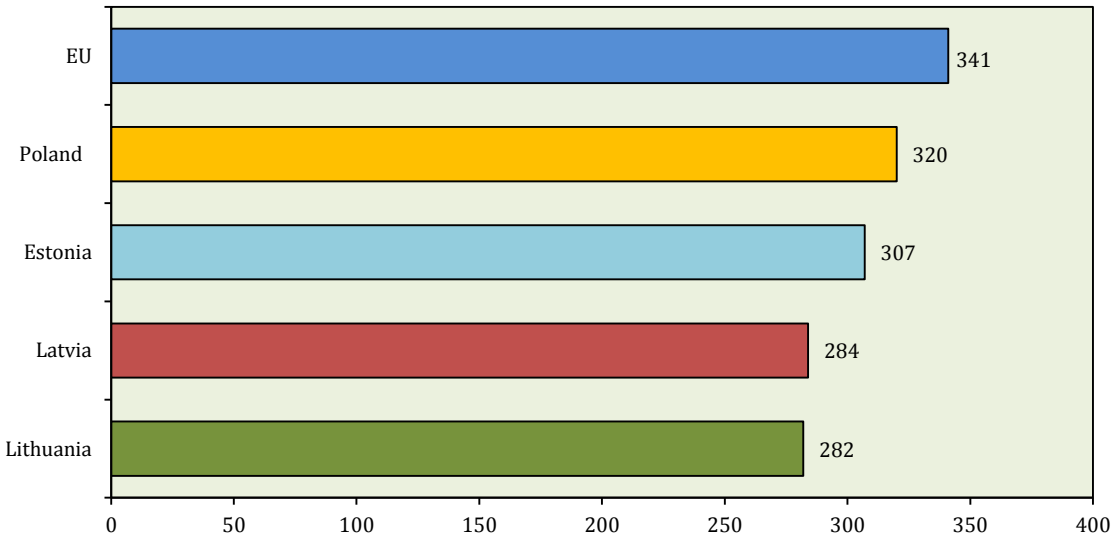


Fig. 2.15. Producer price of milk (actual fat content) in Lithuania and in neighbouring EU countries in 2018, EUR/t

Sources: DG Agri and Statistics Lithuania.

From 2014 until the end of 2018 the number of cow-keeping farms decreased by 24.1 thousand, or by 40.0% (Table 2.19). In 2018, 63.3% of cow-keeping farms sold milk to purchasers. The remaining farms either sold their milked milk directly to consumers or were not commodity farms. The average dairy farm in Lithuania is among the smallest in the EU countries. In 2018, the number of cows per farm was 7.1. The average smaller dairy farms were only in Romania: in 2016 the average farm in Romania raised 2.4, and in Lithuania 6.1 cows. Milk production farms, however, are becoming larger in Lithuania. In 2018, compared to 2014, the average dairy farm has increased by 48.1%.

Table 2.19. Dairy farms by number of cows in 2014 and 2018 (at the end of the year)

Number of cows per farm	Number of farms			Number of cows, thou.		
	2014	2018	change 2018, compared to 2014, %	2014	2018	change 2018, compared to 2014, %
1–2	40633	22630	-44,3	52,0	29,0	-44,2
3–9	14240	9039	-36,5	65,9	43,0	-34,7
10–19	2643	2041	-22,8	35,8	28,0	-21,8
20–29	1025	905	-11,7	24,5	21,7	-11,4
30–49	811	682	-15,9	30,8	25,8	-16,2
50–99	483	466	-3,5	33,0	31,5	-4,5
>=100	261	266	1,9	71,5	77,7	8,7
Total	60096	36029	-40,0	313,5	256,7	-18,1
Average per farm, heads	X	X	X	5,2	7,1	48,1

Source: AIRBC data.

The enlargement of an average dairy farm takes place alongside the decline of small and medium-sized farms and the gradual increase in the number of largest farms. The number of farmers keeping 1–9 cows is decreasing most rapidly: their number in 2018, compared to 2014, has dropped by 42.3%. In 2017, however, 28% of the cow herd has been still kept on that size farms. The number of farms keeping 100 and more cows is increasing. During the five-year period their number increased by 5 farms (1.9%). In 2018, the above-mentioned farms kept 30.3% of the cow herd.

According to the data of Statistics Lithuania, from 2013 to the end of 2018, the number of dairy cows decreased by 57.3 thousand (Fig. 2.16). Their number was consistently decreasing throughout the whole reference period. The highest annual decrease in the number of dairy cows in the reference period was in 2018: compared to 2017, they numbered by 16.6 thousand less (6.1%).

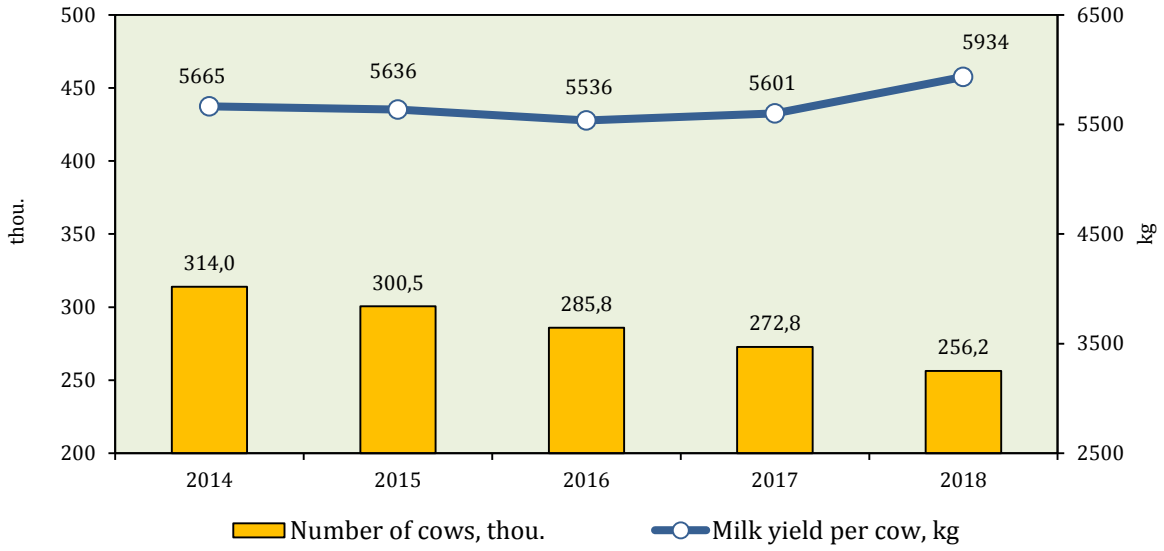


Fig. 2.16. Number of dairy cows (at the end of the year) and average milk yield per cow in 2014–2018

Source: Statistics Lithuania.

The productivity of cows in Lithuania in 2015 and 2016 went on declining. This was impacted by the considerably reduced milk purchase price due to a global milk crisis. At the existence of such price, the milk producers had no funds to retain and increase the milk yield. In 2017, after the increase in the purchase price, cow productivity started going up again. In 2018, the average cow productivity in Lithuania was 5934 kg milk per cow, and, compared to 2017, it increased by 5.9%, and compared to 2014 by 4.7%. The average milk yield of cows under control in the 2017–2018 control period reached 7618 kg – by 1.5% more than in 2016–2017 and by 9.3% more than in 2013–2014. During the control period of 2017–2018, 54.2% of all dairy cows were under control in the country – by 8.2 percentage points more than in the 2013–2014 control year.

Manufacture 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 of companies during the reference period of 2014–2018 generated about 80-68% of the total income from sales in the milk processing sector. In 2016 one more enterprise, belonging to the agricultural cooperative Pienas LT, joined the milk processing activities, being able to process 650 t of milk per day. In 2017, it started manufacturing dry milk products of high added value intended exclusively for export markets. In 2018, Pienas LT generated 5.4% of the income from sales in the milk processing sector. Other milk processing companies are smaller, even though some of them are also exporting the large portion of their production.

All 36 Lithuanian milk processing companies and their subsidiaries in the reference period have implemented the EU sanitary and hygiene requirements for food production. 35 of them had permits for exporting their products to the EU countries, 16 to Russia, 16 to China and 9 to Belarus.

The global economies reviving after the global crisis in 2014 created conditions for increasing dairy product sales (Table 2.20). However, in 2015, compared to 2014, due to the diminished global demand in dairy products and Russia's embargo imposed on imports of dairy products from the EU, sales dropped by 21.4%. With the increased global demand for dairy products, sales started increasing in 2016–2018. In 2018, compared to 2017, sales increased by 0.1%, and, compared to 2014, by 0.6%. Export, in 2018, compared to 2018, decreased by 7.2%.

Table 2.20. Key indicators of the milk processing industry in Lithuania in 2014–2018

Indicators	2014	2015	2016	2017	2018
Number of milk processing enterprises & subsidiaries	33	34	36	36	36
Sales of dairy products and dairy products with vegetable oils, EUR mill.	959,8	754,3	808,3	964,7	966,0
share in total output of the food industry, %	31	25	26	29	29
Export income of milk processing companies, EUR mill.	558,5	379,3	400,0	532,5	518,1
share in total income from sales of dairy products and dairy products with vegetable oils, %	58	50	49	55	54

Sources: Gaminių gamyba 2014–2015. Vilnius: Lietuvos statistikos departamentas. ISSN 2029-5960;
Data of Statistics Lithuania and State Food and Veterinary Service.

The key trend of the milk processing industry specialisation in Lithuania is the production of cheeses. These products also prevail in the export structure. During the period of 2014–2018, the structure of cheese production got changed: manufacture of fresh cheeses increased by 12.4% and of non-processed (fermented) cheeses has decreased by 14.0%. The total number of cheeses produced within that period, however, has not changed. The most considerable increase consisted of canned milk products (89.5%), and the most notable reduction was in manufacture of dry milk products (22.7%) (Table 2.21). In 2018, as compared to 2017, manufacture of canned milk products went up most significantly (27.4%), and the most considerable decline was found in dry milk and whey production (12.6%).

Table 2.21. Production of main dairy products in 2014–2018, thou. t

Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Drinking milk	110,2	93,0	109,5	98,4	86,5	-21,5
Cream	61,7	68,9	63,1	70,6	84,1	36,3
Sour milk, kefir	37,8	37,8	37,3	36,4	40,0	5,8
Yoghurt	19,5	18,2	17,3	15,6	16,6	-14,9
Sour cream & mixes	27,1	25,8	24,5	23,9	22,5	-17,0
Curd	24,1	20,4	21,3	21,1	21,4	-11,2
Butter and other milk fats	16,3	13,9	17,0	14,1	13,6	-16,6
Fresh cheese	42,1	39,1	51,7	51,6	47,4	12,6
Unprocessed cheese	37,8	32,9	26,0	27,9	32,5	-14,0
Dried milk and whey products	49,3	47,7	55,3	43,6	38,1	-22,7
Ice cream, mill. l	30,8	28,2	37,7	35,1	42,5	38,0
Canned dairy products	16,2	13,8	13,6	24,1	30,7	89,5

Source: Statistics Lithuania.

Domestic market in dairy products. Consumption of milk and dairy products (in terms of milk) per capita in Lithuania in 2017, compared to 2014, increased by 5.1%. During the period of 2014–2018, consumption of certain dairy products, manufactured industrially, fluctuated and was highest in 2018, except butter. This was due to the increased purchasing power of the average monthly net wages, calculated by dairy product prices (Table 2.22). The purchasing power mostly went up owing to an increase in wages. Retail prices for dairy products in 2018 increased and were higher or the same as in 2017, though, compared to 2014, prices of products from milk fat went up noticeably, and prices of other products got declined.

Table 2.22. Changes in consumption of milk and dairy products and factors influencing consumption in 2014–2018

Products	2014	2015	2016	2017	2018	2018, compared to 2014, %
Per capita consumption of milk and dairy products, kg						
Milk and dairy products (in terms of milk)	312	315	321	328	...	...
Cheese*	17,3	18,9	20,2	20,7	20,8	20,2
Butter*	3,0	3,4	4,1	4,4	4,1	36,7
Sour milk products*	28,8	28,1	31,5	32,0	32,0	11,1
Drinking milk*	33,2	31,7	34,7	30,9	37,7	13,6

Products	2014	2015	2016	2017	2018	2018, compared to 2014, %
Purchasing power of average monthly net wages and salaries						
Butter, kg	72	83	93	80	75	4,2
Sour cream, 30 % fat content, kg	176	195	214	204	194	10,2
Curd, 9% fat content, kg	132	152	174	183	198	50,0
Milk, 2,5% fat content, l	675	757	833	904	986	46,1
Average retail price of milk and dairy products, EUR/kg						
Butter	7,31	6,69	6,44	8,25	9,61	31,5
Milk, pasteurised, 2,5% fat content, EUR/l	0,78	0,73	0,72	0,73	0,73	-6,4
Sour cream, 30% fat content	3,00	2,84	2,81	3,23	3,72	24,0
Curd, % fat content	3,98	3,64	3,44	3,60	3,64	-8,5

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

Sources: Žemės ūkis ir aplinkosauga 2017. Vilnius: Lietuvos statistikos departamentas, 2018. ISBN 978-9955-797-32-6; Statistics Lithuania.

The overall Lithuanian wholesale market of dairy products in 2018 amounted to EUR 592 million. In comparison with 2014, it has augmented by 16.1%. 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 2014, the imported dairy products accounted for 21.3% of the total dairy products sold on the Lithuanian market (excluding raw milk import), and in 2018 for 24.3%.

In 2018, imports of dairy products from other EU countries comprised 99.7%. Here the neighbouring countries are predominant: 53.9% of dairy products were imported from Poland, 11.0% from Latvia, 7.6% from Estonia, and 9.9% from Germany. Cheeses and curd (34.2%), butter (15.2%) and ice-cream (13.6%) were dominant in the import structure of dairy products. In 2018, the total amount of imported dairy products (including ice-cream, lactose and casein, but excluding raw milk) made EUR 144.1 million, or by 8.4% more than in 2014. The volumes of products by Lithuanian producers of dairy products sold on the domestic market in 2018 amounted to EUR 447.9 million, and, compared to 2017, got increased by 3.6%, and, compared to 2014, increased by 11.6%

The wholesale prices for dairy products sold by Lithuanian producers on the domestic market at the first half of 2014 were stable, whereas at the second half went on decreasing. In 2015, their variations were insignificant; in the first half of 2016 they were decreasing and from the second half to the end of 2017 got increased again. In Quarter I 2018 the wholesale prices by Lithuanian manufacturers were declining, later were stable and only in December they jumped again. Throughout 2018 the wholesale prices for dairy products have decreased by 2.0%, and in December 2018, compared to December 2013, the wholesale prices for dairy products on the domestic market went up by 7.4%. The main reason of the above-mentioned changes is fluctuations in the global prices for dairy products.

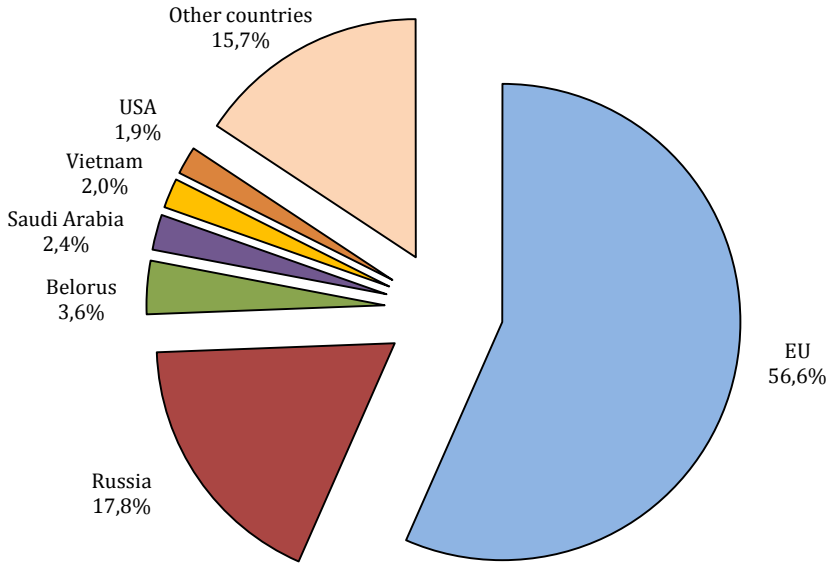
Exports of milk and dairy products. Balance of Lithuania's foreign trade in milk and dairy products in 2014–2018 was positive: in 2014 exports surpassed imports by EUR 336.2 million, and in 2018 by EUR 271.0 million. The lower export surplus was due to the increased imports of milk and dairy products by 4.1% and exports that declined by 8.9%.

Export of milk and dairy products slowed down in 2014–2015; in 2016–2017 it went up, and in 2018 decreased again. Exports of milk and dairy products (including ice-cream, lactose and casein) in 2018 amounted to EUR 555.2 million. The major share of exports consisted of cheeses and curd, making 34.4 of the total exports, not-concentrated milk and sweet cream 29.6%, and concentrated milk and sweet cream 13.9%. The amount of shipped raw milk comprised 3.5% of the total exports of milk and dairy products. In 2018, compared to 2014, the export structure of milk and dairy products has changed noticeably. Export changes of separate milk and dairy products were significant in terms of decreasing and increasing. Of the expanded nomenclature groups of milk and dairy products (of 4 numbers) export of ice-cream increased mostly (58.9%) as well as not-concentrated milk and sweet cream (17.5%), and the most considerable decline was in exports of fermented or soured milk and sweet cream (44.3%) and concentrated milk and sweet cream (17.1%). Significant structural changes also occurred inside these groups (Table 2.23).

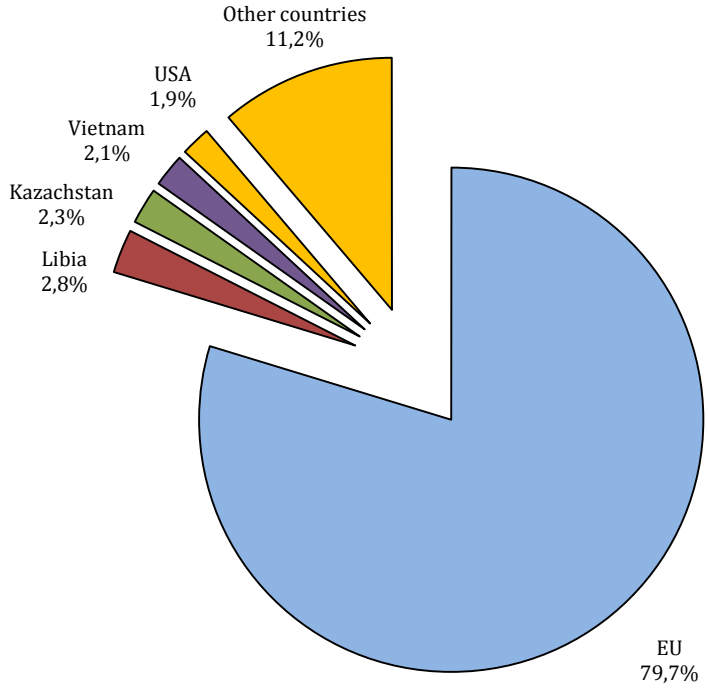
Table 2.23. Exports of milk and dairy products in 2014–2018, EUR mill.

CN code	Products	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
0401	Milk & cream, not concentrated	140,1	113,4	118,5	184,4	164,6	17,5
0402	Milk & cream, concentrated	93,0	40,7	32,8	41,5	77,1	-17,1
040210	Skimmed milk powder	79,5	28,2	19,8	16,1	43,1	-45,8
040221	Whole milk powder	0,5	0,5	0,7	1,6	2,7	440,0
040291	Condensed milk without sugar	3,2	3,3	4,9	16,8	23,0	618,8
040299	Condensed milk with sugar	9,6	8,8	7,4	6,9	8,2	-14,6
0403	Fermented or acidified milk & cream	16,7	8,3	9,7	8,2	9,3	-44,3
040310	Yogurt	8,0	1,7	2,2	1,8	2,3	-71,3
0404	Whey & products consisting of natural milk constituents	31,8	20,9	22,0	42,1	36,8	15,7
0405	Butter & other fats & oils derived from milk, dairy spreads	31,0	21,8	34,2	25,0	26,6	-14,2
0406	Curd & cheese	255,9	186,2	189,6	225,9	191,0	-25,4
040610	Fresh cheese & curd	121,3	104,9	110,6	136,2	118,9	-2,0
040690	Other cheese	129,5	77,0	74,1	83,9	65,2	-49,7
210500	Ice cream	26,3	27,3	30,1	34,2	41,8	58,9
350110	Casein	0,0	0,0	0,7	0,0	0,0	0,0
170211-19	Milk sugar	14,4	8,9	8,5	11,2	8,0	-44,4

Source: Statistics Lithuania.



2014



2018

Fig. 2.17. Structure of the export of milk and dairy products by country in 2014 and 2018

Source: Statistics Lithuania.

The main countries for export of dairy products in 2018 were the EU member states. Export to these countries accounted for 80% of milk and dairy products. The share of milk and dairy products exported to the EU member states in 2018, compared to 2014, increased by 23 percentage points. Of the total amount of milk and dairy products exported to the EU countries in terms of value, in 2018 export to Poland amounted to 32.5% (the dominant products – non-concentrated milk and sweet cream), to Italy – 20.5% (the dominant products –cheeses and curd), and to Germany and Latvia – somewhat more than 11% of milk and dairy products. Of the third countries, a somewhat larger portion of dairy products was shipped to Libya (2.8%) and Kazakhstan (2.3%). As a result of an embargo on food products, imposed in August 2014 by Russia, the share of milk and dairy products exported to this country reduced noticeably: from 18% in 2014 to 0.7% in 2018 (Fig. 2.17). 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 of exports as well as to new markets.

Prices of exported dairy products from the beginning of 2014 went on reducing and started going up only in the middle of 2016 up to the end of the year. In the course of 2017–2018, export prices fluctuated, but less than in 2014–2016. In December 2018, compared to December 2013, prices for exported milk and dairy products decreased by 7.3%.

Economic indicators. Pursuant to the FADN data relating to the respondent farms, the net unprofitability (net profit and subsidies, including VAT deduction, production subsidies per one EUR of sales income from agricultural activities, including subsidies and VAT deduction) at farmer farms, the main revenue thereof was income derived from milk, amounted to 5.2% in 2014, and without subsidies 46.9%. In 2017, the net profitability reached 4.0%, subsidies inclusive, and 32.7% of losses, subsidies exclusive.

Milk production was one of the more profitable branches of farming at agricultural companies and enterprises in 2014 (Fig. 2.18). Profitability of sold milk in 2014 was by 13.1 percentage points higher than the average profitability of agricultural production sales. In 2015, the average profitability of the sold agricultural production has outperformed by 1.5 percentage points the milk profitability, which reached 2.7%, but in 2016 the sold milk profitability again by 2.0 percentage points and in 2017 by 15.9 percentage points has outperformed the sold agricultural production profitability. Fluctuations in milk purchase prices had the major impact on the profitability of milk production.

The average cost price of sold milk production in agricultural companies and enterprises in 2014 amounted to 227 EUR/t (in reckonable weight), and in 2017 decreased to 219 EUR/t, i. e. by 3.5%. The cost price of milk (actual fat content) in 2017 was 268 EUR/t.

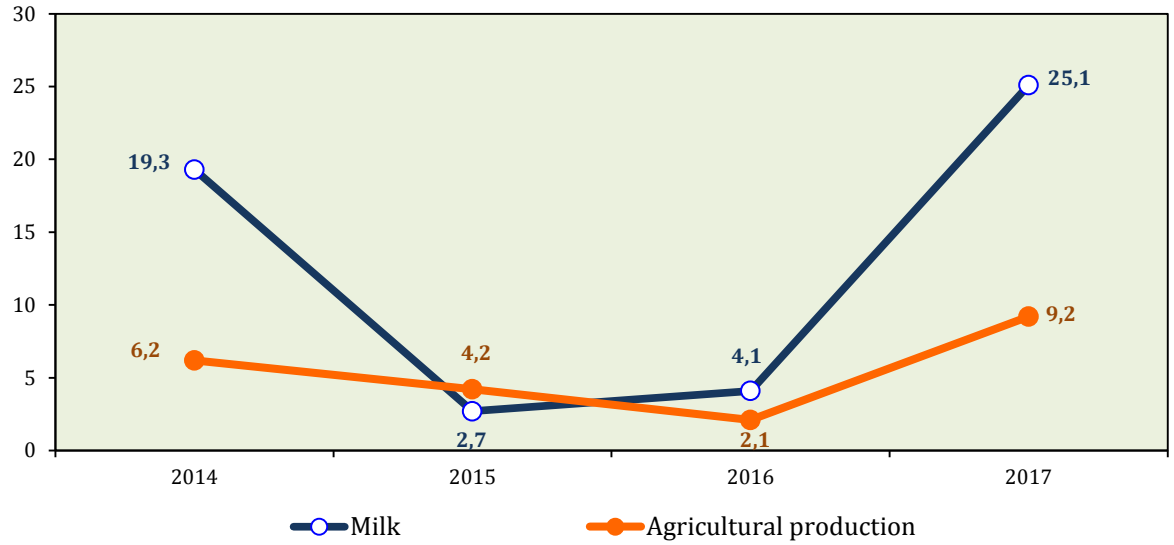


Fig. 2.18. Profitability (excl. support) of milk and total agricultural production sold in agricultural companies and enterprises in 2014–2017, per cent

Source: AIRBC data.

The operation of four major groups of Lithuanian milk processing enterprises (Rokiškio sūris AB, Pieno žvaigždės AB, Žemaitijos pienas AB and Vilkyškių pieninė AB) enrolled in the lists of the "Nasdaq Baltic" Stock Exchange, was profitable, on average, in 2014–2018 (Table 2.24).

Table 2.24. Net profitability of four major groups of milk processing enterprises in 2014–2018, per cent

Indicator	2014	2015	2016	2017	2018
Net profitability	1,4	2,3	5,6	2,6	2,1

Source: Data of Nasdaq Baltic market

In 2014, the profitability of the processing enterprises has declined due to the fallen prices for exported milk products and an embargo on import of food products placed by Russia in August. In 2015, the noticeably decreased milk purchase prices helped the processing companies to raise the higher profit, even though the global milk product prices have been further decreasing and Russia's embargo was not abolished. In 2016, compared to 2015, the profitability of processing enterprises has increased by more than twice, as from the middle of the year the milk product prices gave a boost, and the raw milk purchase prices have been more noticeably raised only from the third quarter of the year. Even though the milk product prices were higher than in 2016, in 2017–2018, due to the increased price for raw milk, the profitability of processing enterprises declined. One of the group of enterprises in those years suffered losses: Pieno žvaigždės AB in 2017 and Vilkyškių pieninė AB in 2018.

3.3. Meat

Research shows that financial funds allocated for the 2014–2020 National Livestock Sector Development Programme are insufficient for implementation of goals. The number of farm animals has not almost changed within 5 years, whereas cattle and pigs even went down. The best illustration of the lagging behind of this sector is the gap between plant growing and animal breeding. By gross production value in 2014, the gap between the said sectors was 46%, and in 2017 this gap was still higher – 63%. The biggest problems relevant to milk and pig-breeding sectors are not being tackled, and pig-breeding is not able to supply the Lithuanian population with pig-meat of local production. An increase in the number of beef cattle and sheep seems to be optimistic, though their meat is not popular among Lithuanian consumers.

For 5 years already, the African swine fever has been gradually killing the reared pigs. The foci of this fever are expanding not only in Lithuania but also in other EU Member States. Losses of healthy pigs are diminishing the supply of pig-meat and increase the consumption of some other meat. Pig-meat, however, remains the main kind of meat consumed in Lithuania. Even though within the period of 2014–2018 the meat product prices have been rather stable not only globally, but in Lithuania as well, it is possible to expect the price jumps for this meat. According to the data of the United Nations Food and Agricultural Organisation, the world meat export prices within 2014–2018 got decreased by some 10%. In Lithuania, in the course of that period, the retail prices for meat have not almost changed, while animal purchase and wholesale prices were lower than in 2014. The EU consumer price level indices show that meat prices in Lithuania constitute just two-thirds of the EU average meat price. Annually growing income of the population in Lithuania affords buying still more considerable amounts of meat and meat products.

Livestock- and poultry-breeding. During the period of 2014–2018, the number of cattle and pigs has decreased, whereas that of poultry and sheep went up (Table 2.25). The low purchase prices for cattle and pigs did not stimulate an increase in the number of pigs and cattle, though farmers have increased considerably the herd of beef cattle. Within the past five years the swine herd has decreased most considerably. This was contributed not only by the fever raging in the country, but also due to the competition between local pig-meat producers and importers

Table 2.25. Number of livestock and poultry in 2014–2018 (at the end of the year), thou.

Kind of livestock	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Cattle	736,6	722,6	694,8	676,3	653,5	-11,3
of which beef cattle	140,4	152,7	167,8	177,3	179,6	27,9
Pigs	714,2	687,8	663,9	611,9	572,0	-19,9
Poultry	10218,4	9369,6	10098,9	10405,0	11836,3	15,8
Sheep	123,8	147,1	163,6	169,7	164,3	32,7

Source: Statistics Lithuania.

Cattle. During the period of 2014-2018, the number of cattle has decreased by more than 11%, whereas the number of beef cattle and cross-bred cattle breeds increased by 27.9%. At the end of the year, they constituted one-fourth of the total number of cattle.

According to the AIRBC data, at the end of the year 2018, cattle in Lithuania was raised in 46 thousand farms, i. e. by one-third less than five years ago (Table 2.26). The average size of a farm is not big. On average, 14 head of cattle were raised per farm. The largest number of cattle is raised by Šilalė (41.8 thou.), Šilutė (37.5 thou.) and Kelmė (27 thou.) farmers.

Table 2.26. Numbers of cattle farms and cattle in 2014 and 2018 (at the end of the year), thou.

Number of cattle per farm, heads	2014		2018	
	number of farms	number of cattle	number of farms	number of cattle
1–2	33,0	46,8	20,0	28,2
3–5	17,3	64,8	10,0	37,9
6–10	9,5	72,4	6,2	47,7
11–20	5,5	78,2	4,0	58,2
21–30	1,9	47,3	1,6	41,1
31–50	1,7	65,6	1,7	65,4
51–100	1,4	94,9	1,4	99,2
101–150	0,4	51,2	0,5	55,9
>=151	0,5	210,0	0,5	224,6
Total	71,2	731,2	46,0	658,2
Average per farm, heads	X	10,3	X	14,3

Source: AIRBC data.

In Lithuania over the period of 2014–2018, the number of farms where up to 5 head of cattle are kept has decreased by almost 40%. The average size per farm during the period of five years got increased by 39%. The number of farms with more than 50 head of cattle has increased.

The number of meat beef cattle (Table 2.27) went on increasing. Within 2014–2018, the number of purebred beef cattle has increased almost twice. At the end of 2018, in Lithuania, 179.6 thousand head of beef cattle, including 45.5 thousand head of purebred cattle, were raised. Of purebred cattle, most popular are Limousine (9.9 thou.), Angus (8.4 thou.), Aubrac (6,4 thou.) and Charolais (5.5 thou.) breeds. Crossbreds are raised by 15% most numerously.

Table 2.27. Numbers of beef cattle and crossbreds in 2014–2018 (at the end of the year), heads

Kind of cattle	2014	2015	2016	2017	2018	Change 2018, compared to 2014, %
Purebreds:	23939	29264	35901	41539	45502	90,1
heifers	8886	11303	14095	15578	17020	91,5
cows	8126	9656	11751	14462	16509	103,2
bulls	6927	8305	10055	11499	11973	72,8
Crossbreds:	116481	123427	131904	135724	134068	15,1
heifers	45231	47438	50669	52260	51231	13,3
cows	27066	30417	33743	35860	37690	39,3
bulls	44184	45572	47492	47604	45147	2,2
Total	140420	152691	167805	177263	179570	27,9

Source: AIRBC data.

Pigs. By the end of 2018 in Lithuania 566.3 thousand of pigs were raised by 13.2 thousand of breeders, of which breeding sows amounted to 45.0 thousand (Tables 2.28 and 2.29). During 2014–2018, the number of pigs decreased by almost 20%. Pig breeders in 2018 raised about 1.1 million pigs, of which 190 thousand have been exported, and 900 thousand were consumed on the internal market. African swine fever that came to Lithuania from the beginning of 2014 has not been conquered and in 2018 spread up to Central Lithuania. Restrictions related to this disease had an impact on pig rearing and purchase prices. Two-thirds of pigs are raised at agricultural companies and enterprises. Within the past 3 years the number of pigs in small farms (up to 10 pigs) has decreased by almost twice.

Table 2.28. Number of pigs by their group in 2014 and 2018 (at the end of the year), thou. heads

Groups of pigs	2014	2018	Change 2018, compared to 2014, %
Pigs, total	714,2	572,0	-19,9
piglets, < 20 kg	124,5	113,4	-8,9
piglets, 20–<50 kg	192,7	151,6	-21,3
pigs for fattening, 50–<80 kg	160,5	122,2	-23,9
pigs for fattening, 80 –<110 kg	118,3	107,8	-8,9
pigs for fattening, ≥ 110 kg	61,0	31,4	-48,5
breeding sows	56,4	45,0	-20,2
boars	0,8	0,6	-25,0

Source: Statistics Lithuania.

Table 2.29. Numbers of pig farms and pigs and their structures in 2018 (at the end of the year)

Number of pigs per farm	Number of		Structure, %	
	farms	pigs	farms	pigs
1–10	12808	39388	97,3	7,0
11–100	292	6488	2,2	1,1
101–500	16	4065	0,1	0,7
501–1000	6	3930	0,1	0,7
>1000	36	512447	0,3	90,5
Total	13158	566318	100,0	100,0
Average per farm, heads	X	43,0	X	X

Source: AIRBC data.

Sheep. Over the period of 2014–2018 the number of sheep has increased by one-third. According to the AIRBC data, at the end of 2018, 163.1 thousand sheep were raised in 10.5 thousand farms (Table 2.30), on average, 16 sheep per farm. The number of goats, compared to sheep, was insignificant, though not much changing. At the end of 2018, 14 thousand goats were raised in 4 thousand farms, on the average, 3.5 goats per farm.

Table 2.30. Numbers of sheep farms and sheep in 2014 and 2018 (at the end of the year), heads

Number of sheep per farm	2014		2018	
	farms	sheep	farms	sheep
1–2	2280	3445	2333	3536
3–5	2191	8465	2362	9188
6–10	1711	13101	2109	16262
11–20	1363	19916	1774	26044
21–30	543	13512	778	19320
31–50	431	16750	583	22362
51–100	246	16976	363	25252
101–150	62	7570	75	9164
>=151	58	24083	102	32005
Total	8885	123818	10479	163133
Average per farm, heads	X	14	X	16

Source: AIRBC data.

According to the data of Statistics Lithuania, during 2018 the number of slaughtered sheep amounted to about 81.7 thousand, of which 91% was slaughtered in domestic slaughterhouses. The largest number of sheep is raised by farmers in Alytus (10.7 thou.), Anykščiai (8.1 thou.), Molėtai (8.0 thou.) and Vilnius (7.7 thou.) districts (2018).

Poultry. By the end of 2018 the number of poultry raised in Lithuania amounted to 11836.3 thousand, of which chickens accounted for 98% (Table 2.31). Laying hens comprised one third. Within the five-year period, the number of chickens got increased by 14.6%, and turkeys by more than twice (2.6 times).

Table 2.31. Number of poultry in 2014 and 2018 (at the end of the year), thou. heads

Poultry by kind	2014	2018	Change 2018, compared to 2014, %
Hens, total	10093,1	11562,1	14,6
of which laying hens	3386,8	3655,3	7,9
Geese	10,1	11,1	9,9
Ducks	18,7	16,0	-18,9
Turkeys	85,5	225,1	2,6*
Other	10,9	22,1	2,0*
Total	10218,4	11836,3	15,8

* Times.

Source: Statistics Lithuania.

According to the data of Statistics Lithuania, in 2018, 57.8 million of poultry was slaughtered, of which 56.8 million chickens (98%). The biggest number of poultry is raised in Vilnius and Kaunas district poultry farms.

Meat production. By the LIAE research data, animal and poultry carcass meat, produced in 2018 in all farms, amounted to 267.8 thou. t. Compared to 2014, meat production increased by 5.8% (Table 2.32). The most substantial changes were in poultry meat and mutton production.

Table 2.32. Meat production (carcasses) in 2014–2018, thou. t

Meat by kind	2014	2015	2016	2017	2018*	Change 2018, compared to 2014, %
Meat, total	253,0	270,1	254,9	274,4	275,8	9,0
of which:						
pig meat	99,5	99,1	86,3	83,8	84,4	-15,2
poultry meat	104,0	115,4	115,5	139,0	140,1	34,7
beef	48,1	53,9	51,2	49,8	49,5	2,9
sheep meat	0,8	1,1	1,3	1,4	1,3	62,5

* LIAE estimation.

Sources: Žemės ūkis ir aplinkosauga 2017. Vilnius: Lietuvos statistikos departamentas, 2018. ISBN 978-9955-797-32-6.

In 2018, the purchased animals and poultry amounted to 296.4 thou. t (live weight), almost the same as in 2017. Over the period of 2014–2017, the purchase price of cattle has not increased (Fig. 2.19), and in the first half of 2018 was highest.

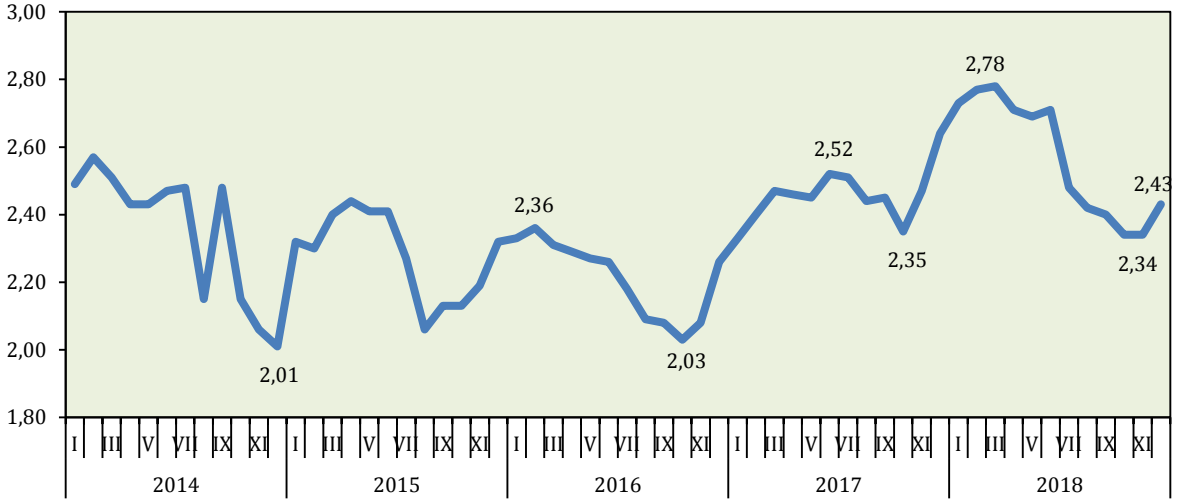


Fig. 2.19. Average purchase prices of cattle in Lithuania in 2014–2018, EUR/kg

Source: Data of Statistics Lithuania and AIRBC.

In 2018, the average annual purchase price was highest within the past five years. The average purchase price in Lithuania was by 18% lower than the average price in the EU.

In Lithuania in the second half of every year throughout 2014–2018, tendencies of fall in prices were observed. The seasonal prevalence has an effect on this price fluctuation, when the cattle supply is considerably higher than the demand (Fig. 2.20).

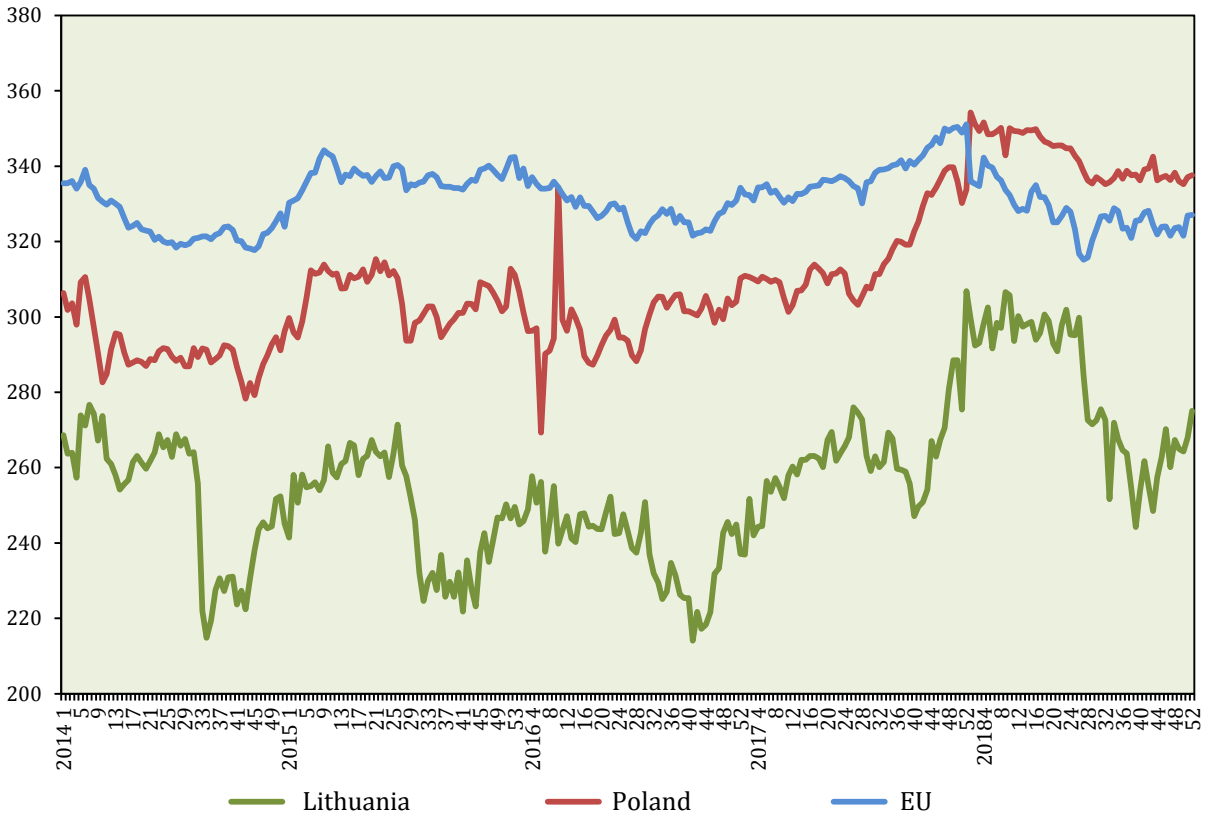


Fig. 2.20. Purchase price of beef (carcass grade O2) in Lithuania, Poland and EU average in 2014–2018, EUR/100 kg

Source: EC data.

During 2018, slaughterhouses and meat processing enterprises have purchased 63.6 thousand pigs which were raised in farms (live weight). In 2018, the average purchase price of live pigs was by 13% lower than a year ago (Fig. 2.21).

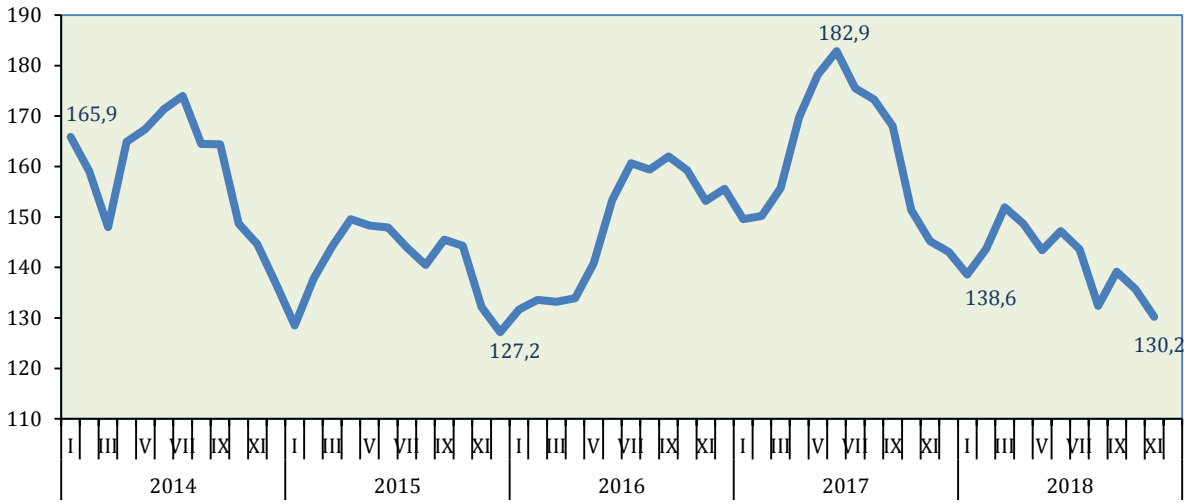


Fig. 2.21. Purchase price of pigs (carcass grade E) in Lithuania in 2014–2018, EUR/100 kg

Source: EC data.

The tendencies of pig purchase prices on the markets of Lithuania and EU countries are similar (Fig. 2.22). In the EU countries in December 2018 the average purchase prices of grade E pig carcasses were by 5% lower, on average, than in 2017. The highest purchase prices for grade E pigs in December 2018 were in Cyprus (16.2%) and Belgium (12.4%). In Lithuania the average purchase price for grade E pig carcasses was by 8% lower than the EU average price.

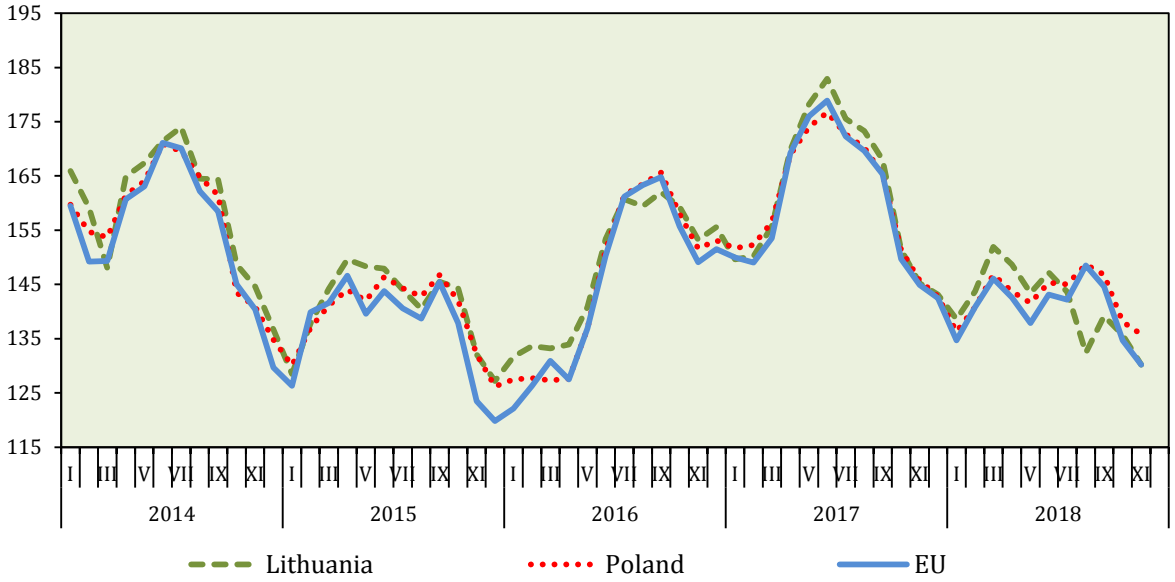


Fig. 2.22. Purchase price of pigs (carcass grade E) in Lithuania, Poland and EU average in 2014–2018, EUR/100 kg

Source: EC data.

In 2018, 57.8 million head of poultry was slaughtered in meat-processing workshops and slaughterhouses (by 1.7% less than in 2017). In 2018, the average poultry purchase price was by 5.6% higher than in 2017 (Fig. 2.23). In 2018, compared to 2017, the average price of chicken meat produced in the EU has increased by 2.4%. Price cut in chicken meat was noted only in 7 EU countries, in other countries prices either did not change or were higher.

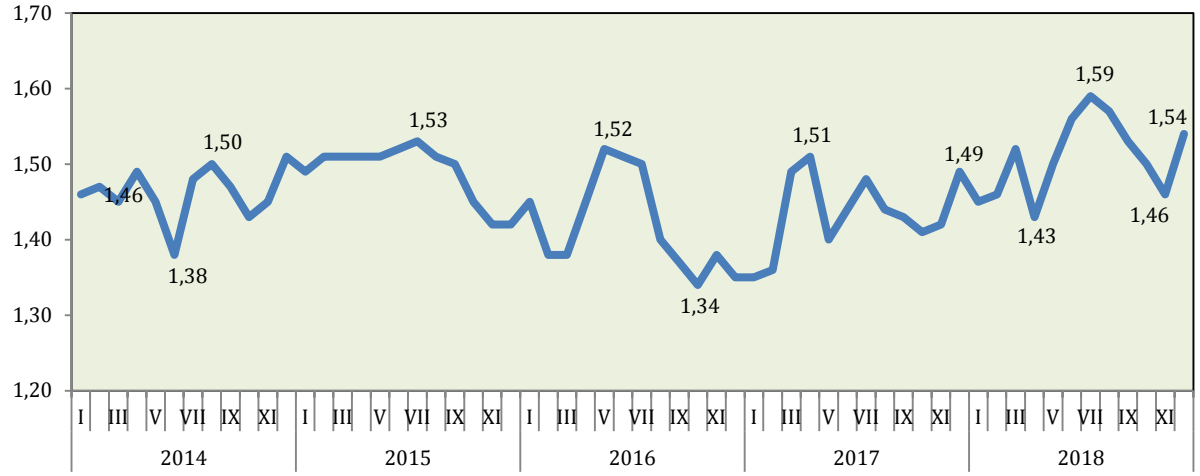


Fig. 2.23. Average producer price for hens (carcass w.) in 2014–2018, EUR/kg

Source: Data of Agricultural and Food Market Information System.

The average prices of chicken carcasses by Lithuanian manufacturers in 2018 were ranked fifth among the cheapest in the EU countries. Compared to the average in the EU, the wholesale price of chicken meat was by 19% lower. The chicken carcasses on the Lithuanian wholesale market was by 9% lower than in Latvia, and wholesale chicken meat price in Poland was by 15% lower than in Lithuania.

In 2018, 7 thousand sheep were slaughtered in slaughterhouses (by 1.7% more than in 2017). 91% of sheep are slaughtered at the breeders' farms. In 2018, the average mutton purchase price was by 5% higher than in 2017 (Fig. 2.24).

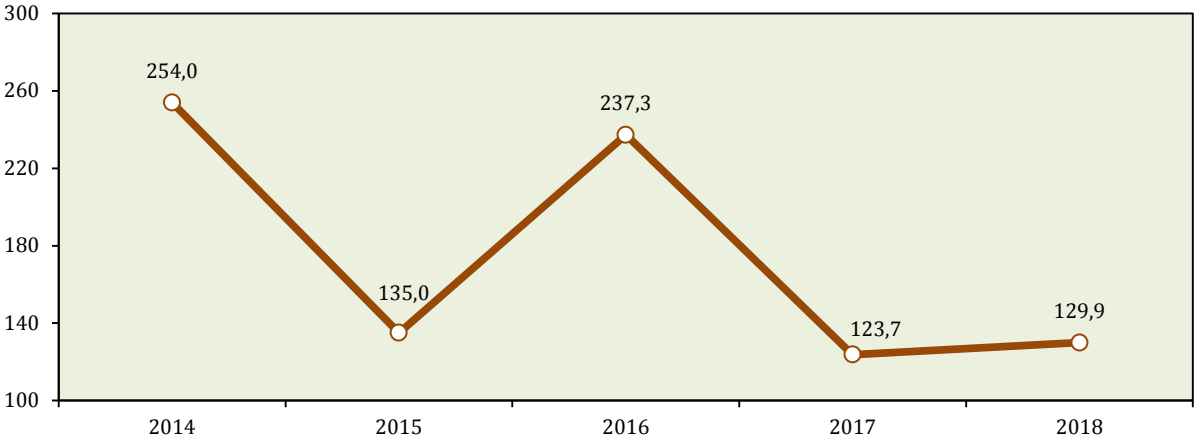


Fig. 2.24. Average purchase price of sheep (carcass w.) in 2014–2018, EUR/100 kg

Source: Data of Agricultural and Food Market Information System.

Domestic market. According to Statistics Lithuania, in 2018, sales of meat and meat products on the domestic market amounted to 274.7 thou. t for EUR 0.6 billion (Table 2.33). In terms of value this was by 7.7% more than a year ago. In terms of value, products of all kinds were sold, except poultry meat (by 7% less). Consumption of imported meat products during the period of five years increased considerably (46%).

Table 2.33. Sales of meat and meat products in the domestic market in 2014 and 2018

Products	2014		2018	
	thou. t	EUR mill.	thou. t	EUR mill.
Meat and sub-products	104,3	201,9	102,8	228,7
Poultry meat and sub-products	59,5	91,9	49,7	85,2
Meat products	102,2	262,5	100,1	269,9
Imported meat products	19,7	40,1	22,1	58,5
Total	285,7	596,4	274,7	642,3

Source: Statistics Lithuania.

During the period of 2014–2018, meat consumption per capita in the country went on increasing. According to the LIAE calculations, in 2018, per capita consumption per annum in Lithuania was 96 kg of meat and meat products (including Category I and II offal) (Table 2.34). Pig meat and poultry meat remain the mostly consumed sorts of meat (they exceed the EU average), even though we are importing the larger half of pig meat.

Table 2.34. Consumption of meat products per capita in 2014–2018, kg

Meat by kind	2014	2015	2016	2017	2018*
Meat, total	83	88	86	95	96
of which:					
beef	4	5	5	5	5
pork	49	50	49	49	50
poultry	26	29	28	36	35
sub-products, category I and II	4	4	4	5	5

* LIAE estimation.

Source: Žemės ūkis ir aplinkosauga 2017. Vilnius: Lietuvos statistikos departamentas, 2018. ISBN 978-9955-797-32-6

Foreign trade. The balance of Lithuanian foreign trade in meat and livestock in 2018 was positive (Fig. 2.19). The export value of meat in 2018, compared to 2017, increased by 2.9%, while that of import went up by 6.9%. Most substantial was export of poultry meat (for EUR 98.5 million) and beef (for EUR 95.1 million) and import of pig meat (for EUR 114.4 million).

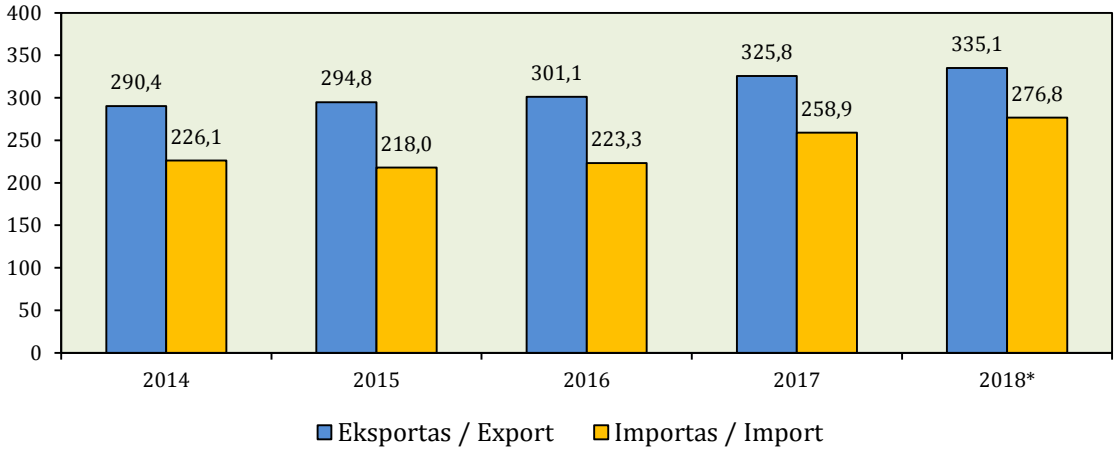


Fig. 2.25. Foreign trade in meat and livestock in 2014–2018, EUR mill.**

* LIAE estimation.

** Meat products in terms of meat.

Source: Statistics Lithuania.

In 2018, poultry meat was exported (Table 2.35). Almost all exported poultry meat (92%) was sold in the EU countries. It was mostly purchased in the Netherlands (29%), Latvia (18%), France (11%) and Estonia (9%). Poultry meat export geography covers 49 countries.

Beef meat in terms of value was mostly exported (95%) to the following EU countries: Italy (20%), the Netherlands (15%), Sweden (13%) and Denmark (9%). Beef meat export geography encompasses 28 countries.

Table 2.35. Meat* exports by kind in 2014–2018, thou. t

Meat by kind	2014	2015	2016	2017	2018**
Meat, total	131,5	136,1	125,1	136,2	138,2
of which:					
beef	29,5	33,5	31,5	29,8	31,4
pork	22,3	27,6	17,0	19,7	24,7
poultry	52,7	56,3	59,3	69,0	64,1

* Meat products in meat equivalent.

** LIAE estimation.

Source: Statistics Lithuania.

In 2018, s compared to 2017, exports of live animals got reduced (13%). The major part of exports consisted of cattle (calves) and pigs. The largest numbers of cattle and pigs were exported to Poland and Latvia.

Throughout 2018, highest imports (for EUR 113 million) to the country consisted of pig meat (46% of the total meat import value) and poultry meat (17%) (Table 2.36). 35% of pig meat was imported from Poland, Belgium (18%), Spain and Denmark (9% each). Import of poultry meat by value was by half less than pig meat, mostly from Poland (74%) and Latvia (14%).

Table 2.36. Meat* imports by kind in 2014–2018, thou. t

Meat by kind	2014	2015	2016	2017	2018**
Meat, total	145,2	150,1	138,7	151,6	182,8
of which:					
beef	2,2	2,3	2,7	3,6	10,8
pork	84,1	91,8	83,8	89,0	113,4
poultry	36,1	38,7	37,9	43,4	43,0

* Meat products in meat equivalent.

** LIAE estimation.

Source: Žemės ūkis ir aplinkosauga 2017. Vilnius: Lietuvos statistikos departamentas, 2018. ISBN 978-9955-797-32-6.

In the EU agricultural trade long-term perspective (up to 2030), it is expected that meat production in the EU countries will not decrease as the consumer needs will persist. The strong export competition may decrease beef and pork production, but the further increase in prices will have a positive impact on the behaviour of animal breeders as regards herd recreation. Domestic poultry meat is the only area of production to be increased owing to the growing consumption not only in the EU but also worldwide. Even 90% of the EU meat production will be consumed inside the countries.

SUMMARY

Agriculture plays an important economic, social, ethno-cultural and environmental function. The village is seen as the country's infrastructure, on which depends both rural and urban people's quality of life.

In 2018, the sector of agriculture, forestry and fisheries accounted for 3.0% of the gross value-added created in the Lithuania's economy, and agricultural products made up more than 17.3% of the total country's export.

In 2018, the export of agricultural and food products totalled EUR 4.9 billion (by 1.6% more than in 2017), while the import amounted to EUR 3.9 billion (by 2.6% more). Since 2004 the balance of foreign trade in agricultural and food products was positive; in 2018, compared to 2017, it remained almost the same and totalled EUR 1041.8 million.

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 2018 the funds for agriculture made up EUR 1047.9 million.

In 2014–2018, the number of agricultural entities by category was changing unevenly. In 2018, compared to 2014, the number of registered family farms went down by 4.1% and, compared to 2017, decreased by 5.5%. The average farm size of agricultural entities that declared UAA in 2017 was 22.7 ha, or by 2.3% larger than in 2017 and by 14.1% more than in 2014.

In 2018, gross agricultural output (at current prices) was produced for EUR 2.3 billion (by 9.4% less than in 2017). In 2014–2018, crop production made up about 60% in total agricultural production. The proportion of grain crops was the largest in 2014 and 2018, accounting for 33.8 and 28.5%, respectively. In 2018, compared to 2014, the shares of fodder and other plants, and birds increased the most, by 3.2 and 1.9 percentage points, respectively, while the shares of cereals and potatoes decreased the most, by 5.3 and 1.4 percentage points, respectively.

Crop production in 2018, compared to 2017, was almost a quarter less due to drought, but this yield not only ensured the needs of the domestic market (except for pork, vegetables and fruit), but also enabled the export of a large part of grain, beef, poultry and processed products. In 2018, the grain yield was 2.4 times higher than domestic market demand, and the number of cattle exceeded it almost 3 times. As the number of cows decreased, milk production in 2018, compared to 2014, decreased by 15.6%. Meat production increased by 9.4% and that of eggs by 11.4%. The supply of milk and dairy products was 1.5 times higher than the country's needs while that of vegetables and fruit, as well as pork, were insufficient.

In 2018 the certified organic area in Lithuania occupied 244.3 thou. ha, or was by 45.6% larger than in 2014. The average size of a certified farm (including fishery farms) increased from 95.9 ha (in 2017) to 99,8 ha (in 2018).

The composition of the total land area by its intended purpose was almost stable. The largest share occupied agricultural land (52.2%) and forests (33.1%).

Advisory services for farmers and rural inhabitants provided as well as non-formal adult education organized Lithuanian Agricultural Advisory Service, Chamber of Agriculture of the Republic of Lithuania, Public Institution Rural Business and Markets

Development Agency, other public and private consulting institutions. Research on agriculture and rural development in Lithuania was carried out by Lithuanian Institute of Agrarian Economics, Agriculture Academy of Vytautas Magnus University, Veterinary Academy and Institute of Animal Science of Lithuanian University of Health Sciences, Lithuanian Research Centre for Agriculture and Forestry (Institutes of Agriculture, Horticulture, Forestry), Food Institute of the Kaunas University of Technology

In 2017, farmers and other agricultural workers as well as legal entities paid EUR 65.1 million and EUR 42.5 million taxes and contributions (in total EUR 107.6 million).

In 2014, 28.8% 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 percentages of the population involved in services, manufacture and construction have augmented. In 2018, 20.6% of the employed rural population were involved in agriculture, hunting, forestry and fisheries.

In 2018, compared to 2014, the number of very small, small and medium enterprises in rural areas increased nearly 25.0% and reached 15.0 thousand (81.7% of which made up very small enterprises).

The overall trend in rural and urban population decline in Lithuania remains. At the beginning of 2018, the rural population made up 924.2 thousand, i. e. it was by 12.7 thousand less than in 2017 and by 44.7 thousand less than in 2014. The rural population accounted for one third of the country's population.

Lithuania was one of the leaders in terms of growth of total-factor productivity (in 2015 it ranked second among EU countries). Country’s farms have increased productivity by improving production management and organization, creating economies of scale, investing in new technologies, logistics and infrastructure. In 2017, total-factor productivity in agriculture reached 132.7% (2005 = 100%), but, compared to 2016, it decreased by 0.9 percentage point. This shows the need to look for new factors that increase the competitiveness of Lithuanian agriculture.