

LITHUANIAN INSTITUTE OF AGRARIAN ECONOMICS

**AGRICULTURAL AND FOOD SECTOR  
IN LITHUANIA**

**2017**

**VILNIUS, 2018**

An analytical review of the Lithuanian agricultural and food sector over the period of 2013–2017. “Agricultural and Food Sector in Lithuania 2017” 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  
CAP – Common Agricultural Policy  
CN – Combined Nomenclature  
EAGF – European Agricultural Guarantee Fund  
EBITDA – Earnings before Interest, Taxes, Depreciation and Amortization  
EC – European Commission  
EEU – Eurasian Economic Union  
EU – European Union  
EU-28 – all EU Member States since 1 July 2013  
FADN – Farm Accountancy Data Network  
LIAE – Lithuanian Institute of Agrarian Economics  
RDP – Rural Development Programme  
TNA – transitional national aid  
UAA – utilized agricultural area  
USA – United States of Amerika  
VAT – Value added tax

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## **FOREWORD**

The publication “Agricultural and Food Sector in Lithuania 2017” is the nineteenth edition of the annual publications by the Lithuanian Institute of Agrarian Economics (LIAE). This is an analytical economic survey of agriculture and processing industry, prepared referring to the statistical information, accountability data of companies, and the findings of research conducted by the LIAE staff.

Relevance of the publication has been enhanced by going on discussion on the Common Agricultural Policy (CAP) post-2020 in the European Union (EU). In discussing the strategic goals of Lithuanian agriculture, it is necessary to survey the experience in the utilisation of the EU support and to distinguish the topmost achievements and most important problems.

The publication provides the five-year period variations in the agricultural and food sector development indices, special attention focusing on the 2017 outcomes. Pursuing the option for comparing the key tendencies, data in all surveys is provided under the single methodology and structure.

As in any previous years, some provisional statistical indicators for the year 2017 have been used. Final economic and financial outcomes will be reflected in the later publications of the Department of Statistics of Lithuania (Statistics Lithuania) and in the next-year LIAE survey. Minor statistical data discrepancies are possible due to rounding of figures.

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

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

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

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

### **1. The key challenge for Lithuanian agriculture: sustainability of farm structure**

The EU has launched discussions on the Common Agricultural Policy (CAP) post 2020. The current agenda of discussions will devote special attention to the following issues of importance for societies in the European countries, like climate change and preservation of natural resources, social problems induced by migration, necessity for the more rational use of the available resources in the development of bioeconomy and circular economy. Lithuania will also become a participant in this discussion and will face challenges of how to reconcile the interests of agricultural producers and the changing needs of society.

During discussions over the goals of importance in a new financial perspective for Lithuania's agriculture and all rural population, it is necessary to overview the experience gained in the use of the EU support and to highlight most important achievements and problems. After Lithuania has become a member of the EU, the most significant achievements in Lithuania's agriculture, which, in the opinion of policy-makers, show the efficiency of support use, were the growth of agricultural production volumes and increase in the value of export. These provisions have impacted the support distribution and not only helped to achieve the desirable targets but also created more than one economic side effect in rural areas.

Estimating agricultural achievements during 2013–2017 from a macroeconomic perspective, it may be stated that Lithuanian manufacturers of agricultural production are facing risk management challenges. The value of the gross agricultural production steady growing since 2013, in 2016 it began declining and reached 94.8% of the 2015 level. In 2017, the production results became worse due to complicated climatic conditions.

It may be delightful that in the year complicated to agriculture due to climatic conditions the agriculturists succeeded in enhancing the gross value added created in agriculture, forestry and fisheries. According to the data of National Accounts, over the period of 2013–2017, this indicator has augmented by 4.1% and in 2017 reached EUR 1302.4 million. The gross value added created in the whole economy of Lithuania has gained momentum at a much more rapid pace with an increase even by 18.1% during the same period; therefore, the share of the gross added value created in agriculture, forestry and fisheries in 2017, as compared to 2013, has dropped from 3.9 to 3.5%. The export volumes of agricultural and food products declining in 2015 and 2016 started to augment again in 2017 and, as compared to 2013, increased by 2.7%. The export value of agricultural and food products accounted for 18.3% in the Lithuanian export structure (Table 1.1) and was the lowest throughout the period under analysis. With an increment in exports of agricultural and food products, imports simultaneously have increased. Over the period of 2013–2017 it increased just by 1.6%; therefore, the foreign trade balance in this field has improved.

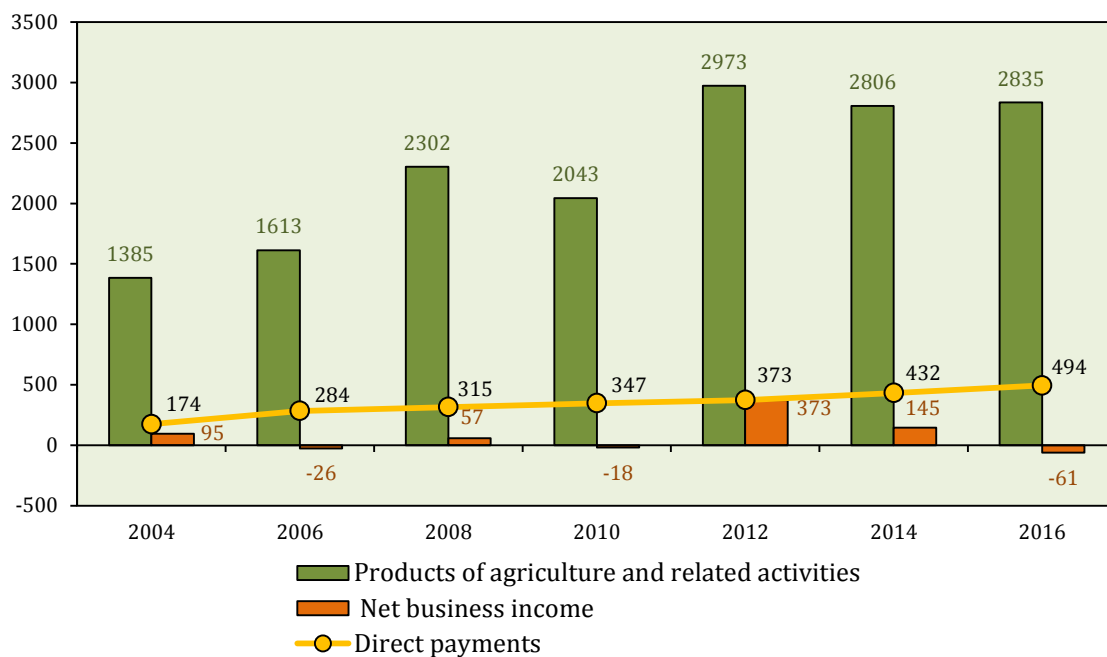
**Table 1.1. Macroeconomic indicators in the agricultural and food sector in 2013–2017**

Indicators	2013	2014	2015	2016	2017*
Value of gross production in agriculture, forestry and fisheries, EUR mill.	3326	3424	3467	3288	...
Gross value added, at current prices, EUR mill.	31690	33068	33709	34789	37584
Gross value added created in agriculture, forestry and fisheries, EUR mill.	1251	1252	1288	1155	1302,4
Share of agriculture, forestry and fisheries in gross value added, %	3,9	3,8	3,6	3,3	3,5
Value of exported products, EUR mill.	4696	4644	4475	4386	4824
share in total export, %	19,1	19,1	19,5	19,4	18,3
Value of imported products, EUR mill.	3722	3706	3585	3409	3783
share in total import, %	14,2	14,3	14,1	13,8	13,2
Foreign trade balance, EUR mill.	974	939	890	977	1042

\* Preliminary data.

Sources: Data by Statistics Lithuania and Eurostat.

Achievements, nevertheless, are not gratifying, since the agricultural sector due to the increased risk cannot boast of the stable financial performance results. The data of Economic Accounts for Agriculture show that after several successful years the year 2016 was not profitable for Lithuania’s agriculture (Fig. 1.1). In 2017, agricultural entities suffered losses as a result of heavy rains that battered the major part of the territory of Lithuania, and even though the final financial results of agricultural entities have not been known so far, it is probable they will not be successful.



**Fig. 1.1. Economic results of farms in 2004–2016, EUR mill.**

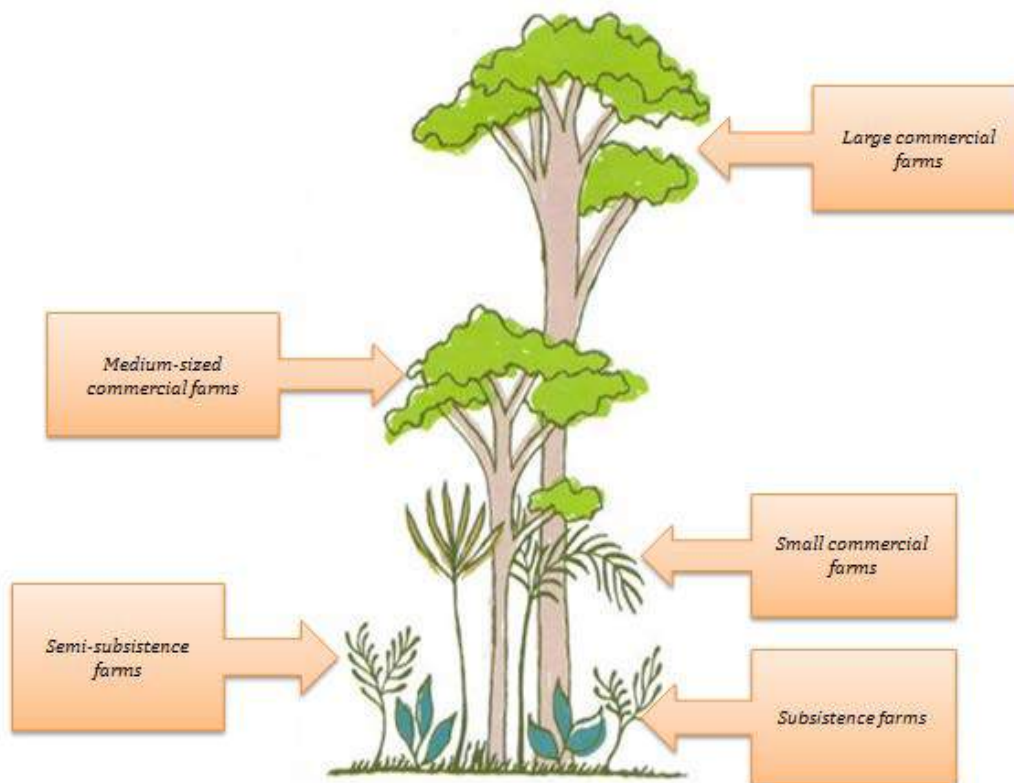
Source: Economic Accounts for Agriculture.

With an aim to boost production volumes and export, no assessment was made of how support distribution contributed to the preservation of agriculture, as an economic activity in the rural locality. Climate change challenges faced by the community of agriculturists, search of opportunities for some other activity and not easy accessibility to the support permitting the expansion of a farm are changing rapidly the structure of farms in Lithuania.

In Lithuania an issue is frequently posed what farm is competitive and what structure of farms is optimum, expecting the specific number to be given. In the period of industrial economy when investments in agriculture were aimed to increase the production volumes of agricultural products and the farm performance was optimized on the basis of technological efficiency indicators, this question actually could be given quite a simple answer. In the current period when manufacturers of agricultural products are periodically facing a risk for oversupply of food products on the market and deterioration of the quality of natural resources, farm competitiveness cannot be correlated entirely with economies of scale and higher productivity, even though this was characteristic of the period of industrial economy.

At present during the formation of agricultural policy, the prevailing concepts of sustainable agriculture and of a multifunctional farm are a response to the present-day challenges of farming. Therefore, competitiveness of farms in Lithuania should be analyzed in the context of their viability, i.e. a potential to recreate resources (capital, human and natural) and resistance to environmental challenges.

Sustainability of agriculture is closely related to the sparing use of natural resources and maintenance of biodiversity. The most sustainable ecosystem in the natural environment is forest (Fig. 1.2).



**Fig. 1.2. Diversity and complementarity of farming in agriculture towards sustainability**

*Source: composed by the author.*

It is necessary to underline that this ever-renewing system is also very productive. The forest ecosystem sustainability is based on the interdiversity, complementarity and symbiosis. In this system, each plant takes part in the fight for the survival of the common ecosystem, i. e. tree, bush, moss, etc. performs its own role.

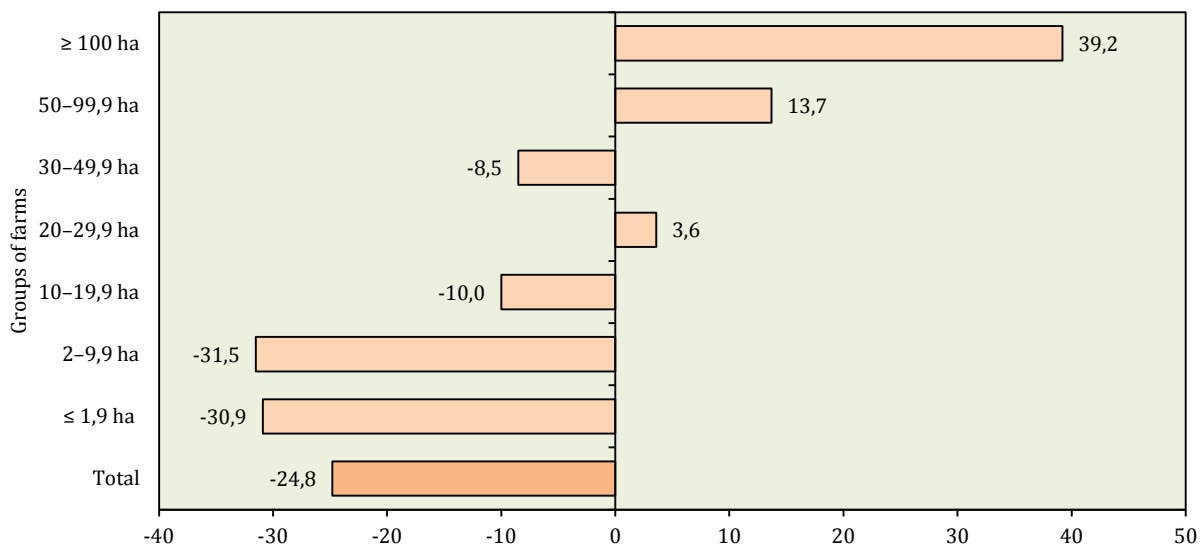
Applying an analogy of the structure of this sustainable model in agriculture, one may state that various farms in terms of their size and economic activity diversity could find their place in the naturally forming sustainable structure of farms. In other words, both large and smaller farms may function successfully, since objectives and trends of their activity and success factors are different.

In Lithuania the Farm Structure Survey conducted in 2016 is giving a signal of the substantial changes witnessing that a big number of farms have retreated from the market during 2010–2016. According to the 2016 Farm Structure Survey data, during the referred period, the number of farms with more than 1 ha reduced by one fourth in Lithuania: from 199.9 thousand to 150.3 thousand. This change is characterized by two significant tendencies:

- enlargement of farms;
- retreat of working-age farmers from agricultural activities.

The first tendency is reflected by the growth of medium-sized farms with 13.8 ha to 19.5 ha of utilised agricultural area (UAA). Making analysis of farm structure based on farm managed UAA, the most rapid growth was observed in the group of large farms managing more than 100 ha of UAA. Over the period of 2010–2016, the number of farms in this group increased by 38%, even though the average farm of this size group decreased from 285.6 ha to 264.6 ha UAA.

Increment in the number of large farms occurred alongside the fast reduction of the number of farms in Lithuania. The number of small farms has shrunk most of all. The number of farms with an area of 1 to 1.9 ha decreased by 30.9% and with an area from 2 to 9.9 ha by 31.5% (Fig. 1.3).



**Fig. 1.3. The change in the number of farms by group of area in 2016 compared to 2010, %**

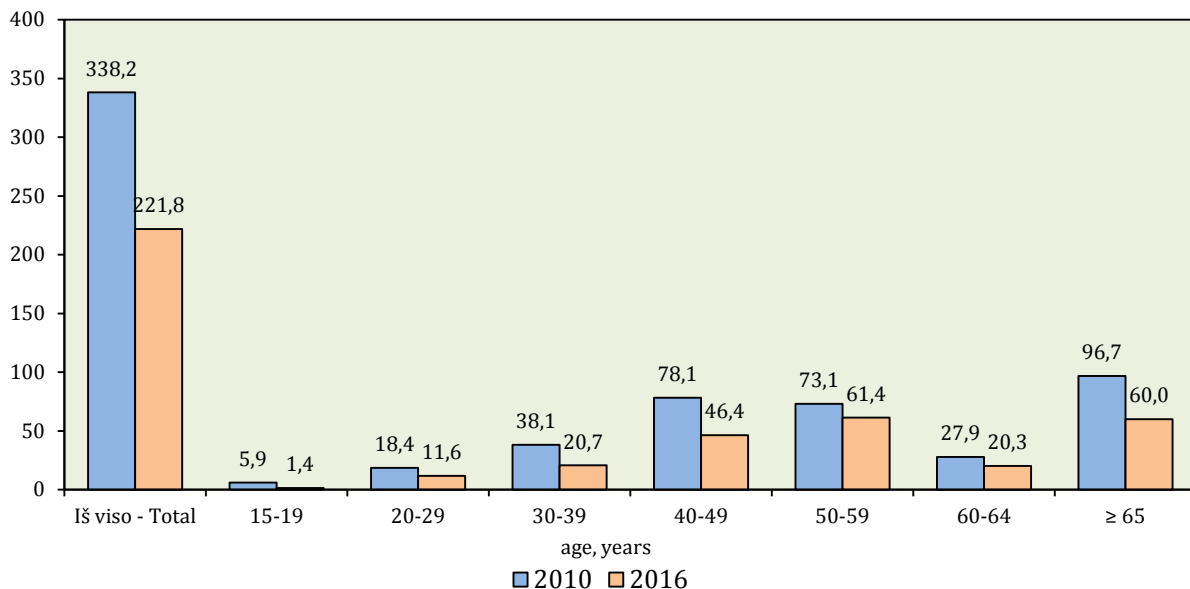
*Sources: Data by the 2010 Agricultural Census and by the 2016 Farm Structure Survey.*



The declining number of farms at first sight may seem to be a phenomenon to be welcomed. A circumstance that small farms dominated in the farm structure in Lithuania after restitution was perceived by policy-makers as a factor impeding the growth of agricultural production volumes. As already mentioned, conviction prevailed in Lithuania that small farms owned by farmers of retirement age, persons with the lower education, retreat from the market. They sell or lease their owned land to younger farmers, educated and more open to innovations, and farms that acquired the additional UAA areas may seek the effect of a higher scale.

The decline in the number of farms could be assessed positively, if not for its contribution to the negative demographic changes. As statistical data evidence, the biggest threat that Lithuania will face in the future arises from demographic challenges. Within the period of 2008–2017 in Lithuania, as compared to other EU Member States, the highest decline in the population number is observed – within the past ten years the number of the population dropped by 15.96%. Due to both internal and international migration, the rural regions which according to 2017 data were inhabited just by 40.2% of Lithuania’s population are depopulating most rapidly. They, however, covered 76.9% of Lithuania’s net migration volume, and this share within the past decade has not been lower than 50% per year. No statistical data are provided as concerns the number of persons, residents of rural areas, who emigrated and the type of their previous activities, even though the scale of migration permits one to presume that part of the previous farmers after termination of their activities also joined the ranks of emigrants.

Upon assessment of the demographic characteristics of the farmers who terminated their activities, it is seen that the number of farmers and their family members has dropped more frequently not only in the group of retirement age but also in the working-age groups (40–49 and 30–39). In the latter groups, the number of farmers and their family members diminished by 31.8 and 17.4 thousand, respectively. In 2016, the number of young farmers, under 29 years of age, and their family members just reached 13.1 thousand (Fig. 1.4).

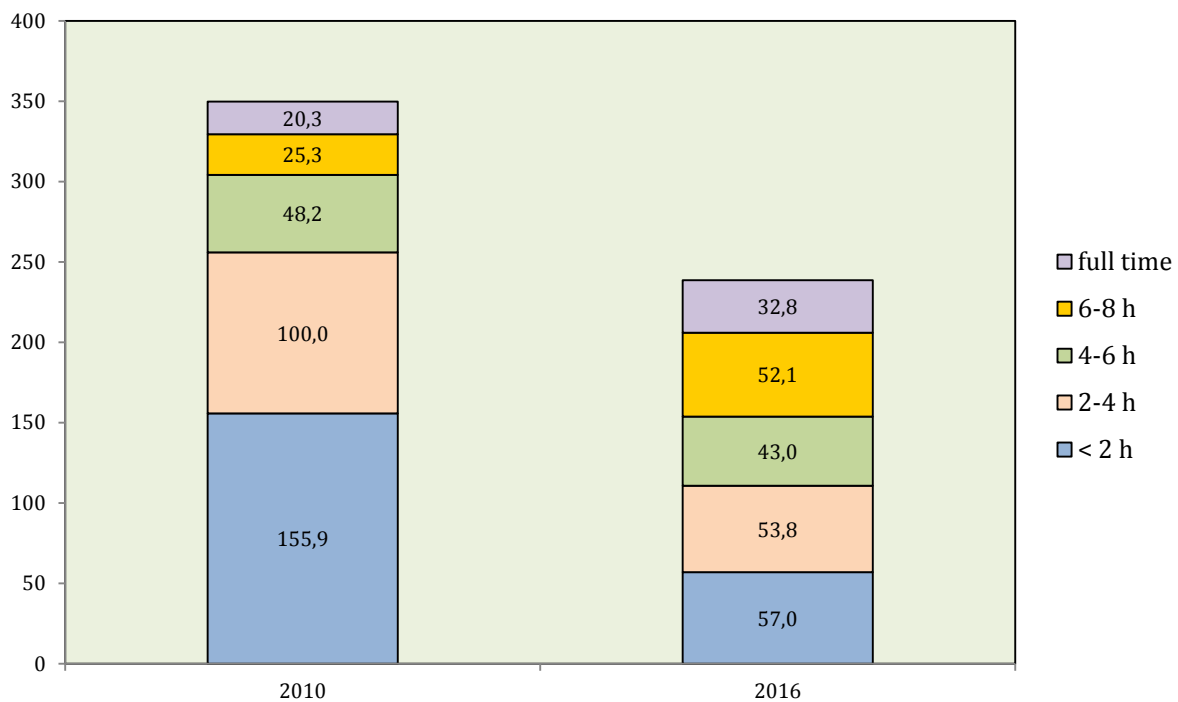


**Fig. 1.4. Numbers of farmers and their family members by age in 2010 and 2016, thou.**

*Sources: Data by the 2010 Agricultural Census and by the 2016 Farm Structure Survey.*

Observing emigration tendencies it is important to find methods how to increase the sustainability of farming activities, since agriculture in Lithuania’s rural areas still remains the source of subsistence for a large number of the population. The 2016 Farm Structure Survey data show that more than 256.7 thousand rural residents received income from agriculture, even though, as compared to 2010, the number of such people reduced by 27.9%. The number of such people in farmers’ farms in 2016 accounted for 93.0% of the number of all income recipients – 238.8 thousand rural residents.

Aiming that agriculture as a state-supported field of economy would contribute to the preservation of the number of the population in rural areas, it is necessary to evaluate the expediency of management of new processes occurring in the farms by making use of agricultural support measures. The 2016 Farm Structure Survey data shows that the huge number of persons deriving their income from farming may be explained by their partial employment in agriculture. Even 86.2% of the total number of farming persons deriving income from agriculture worked part-time in their farms, and 23.9% devoted up to two hours for this activity. Comparison of 2010 Agricultural Census data and 2016 farm structure research data shows that the share of workers involved in the full-time work on the farm increased in the worker structure by more than twice: from 5.8% in 2010 to 13.8% in 2016 (Fig. 1.5).



**Fig. 1.5. Farmers and their family members by working time (in farmer and family farms) in 2010 and 2016, thou.**

Sources: Data by the 2010 Agricultural Census and by the 2016 Farm Structure Survey.

Another important tendency: part of the farming persons who alongside agricultural activity derived their income from other work has increased (during the reference period from 34.0% to 41.6%, respectively) while the number of agricultural

workers involved in some other job as the main activity, on the contrary, reduced. In 2010, such people accounted for 32.4%, and in 2016 – 28.4%. These tendencies show the efforts of those engaged in farming to survive in the market by adjusting their agricultural activities in small farms with some other activities. To give support to these efforts means alongside the natural enlargement of farms to stimulate farm structure sustainability oriented towards employment preservation.

One of the weightiest measures that allow enhancing the farm structure sustainability is a new model of direct payments, which took start from 2014, mitigated the effect of scale and directed support towards strengthening the viability of farms experiencing hardships. Calculations performed by the LIAE scientists show that in 2016 as a result of application of a new model for direct payments all farms with up to 150 ha experienced a positive change in income. The most substantial change was observed in the farms with up to 100 ha where a positive effect was created not only by the coupled support granted to sectors experiencing hardships and payments to young farmers, but also by a scheme of the first hectares, foreseeing that 15% of the funds granted for direct payments will be disbursed to the farms for the first 30 ha. A new model enhanced the viability of the major part of Lithuanian farms since the amount of payments received by farms with an area of up to 10 ha increased, on the average, by 63%, farms in possession of 10 to 20 ha UAA by 42%, and farms with 20 to 30 ha by 40% (Table 1.2).

**Table 1.2. Changes in direct payments in farms of different size in 2016 compared to 2013, %**

Farm size, ha	Changes in direct payments due to:	
	the first hectare scheme	the system of direct payments for 2014–2020
<10	+18	+63
10–<20	+18	+42
20–<30	+18	+40
30–<40	+14	+28
40–<50	+7	+19
50–<100	0	+14
100–<150	-7	+6
150–<200	-10	-12
200–<500	-12	-18
≥500	-14	-22

*Source: LIAE calculations based on FADN data.*

Changes in support distribution among farms grant additional resources to smaller farms for business development and increase opportunities to survive on the market, as well as for young people to get involved in agricultural activities as young farmers at the beginning of their activities in many cases are in possession of a small land plot. To preserve the sustainability of farm structure and to slow down emigration from rural areas, it is necessary to strengthen the scale of support dissemination during the new programme period.

Experience in the previous years showed that the core narrative of the discussion on the CAP in Lithuania is the search of arguments permitting to substantiate an envelope as big as possible for agriculture and rural development. Actually, in the presence of present-day challenges when social problems in Lithuanian countryside are becoming still more important and demographic situation becomes worse at a rapid pace, the size of a financial envelope of support is an issue of special importance, perceiving that our national budget cannot contribute much to the stimulation of rural economy. On the other hand, analysis of the results of the already implemented rural development programmes and of the absorbed direct payments shows that Lithuanian society simultaneously should also take an active part in discussions on the priorities in the use of funds. This process of discussions alongside organizations representing the agriculturists should inevitably involve communities representing the rural population, consumers and non-government environmental organizations so that later no regrets could be expressed that support dissemination was insufficient and that we could not use the funds in the way, most successful for Lithuania's countryside.

Importance of increasing the agricultural production volumes ensues from the necessity to supply the population of the country with qualitative, safe and healthy local agricultural and food products guaranteeing the economic security of the country. Many years ago the EU tackled this task by forming the CAP: by granting support to agriculturists it was expected to improve the food provision to the population. This challenge for Lithuania was also important throughout the second half of the 20th century when, due to the planned economy, shortage of the staple food products was felt in Lithuania. Even though Lithuania was in the lead in Soviet space by agricultural production volumes per capita, this production, however, was shipped to other regions.

At present the amount of food products of many sorts manufactured in Lithuania exceeds consumption and agricultural products are successfully exported to other countries. Therefore, it is possible to state that this task posed to agriculture has been successfully implemented. Further increment of production volumes should be derived from the interest of agricultural entities to expand the scale of production by detecting new markets or starting manufacture of products of new sorts, taking into account the needs of Lithuanian consumers, and should not be stimulated by granting support. Usefulness of support, by stimulating the agricultural development, should be interlinked with other targets advanced for agriculture: maintenance of the viability of farms and rural communities and preservation of clean natural environment.

A problem of food self-sufficiency in the long-term perspective depends on the successful implementation of two goals: preservation of natural resources and income generation of the rural population. Present-day social and demographic rural problems show that solution of the latter task is accompanied by failure, even though acknowledgement of this fact is ignored. Lithuania currently faces the challenge of food self-sufficiency in the long-term perspective when the number of farmers and of residents in rural regions is rapidly decreasing.

## 2. Gross agricultural production

According to preliminary data by the Department of Statistics, the gross agricultural production in 2017 if calculated at the prices of the period amounted to EUR 2.63 billion, i.e. by 15.8% more than in 2016. This was due to the increased purchase prices for a great many agricultural products and the higher yield of some crop production products. Within the whole period under analysis, the crop output comprised the larger portion of the gross agricultural production value. This share in 2017, however, as compared to 2016, was lower by 3.1 percentage points (Table 1.3).

**Table 1.3. Structure of gross agricultural production\* in 2013–2017**

Production	2013		2014		2015		2016		2017**	
	EURmill.	%	EURmill.	%	EURmill.	%	EURmill.	%	EUR mill	%
<i>Total</i>	2548,7	100	2450,9	100	2530,4	100	2270,0	100	2628,5	100
<i>crop production</i>	1512,0	59,3	1456,2	59,4	1678,8	66,3	1465,2	64,5	1612,8	61,4
<i>animal production</i>	1036,7	40,7	994,7	40,6	851,6	33,7	804,8	35,5	1015,7	38,6

\* At current prices.

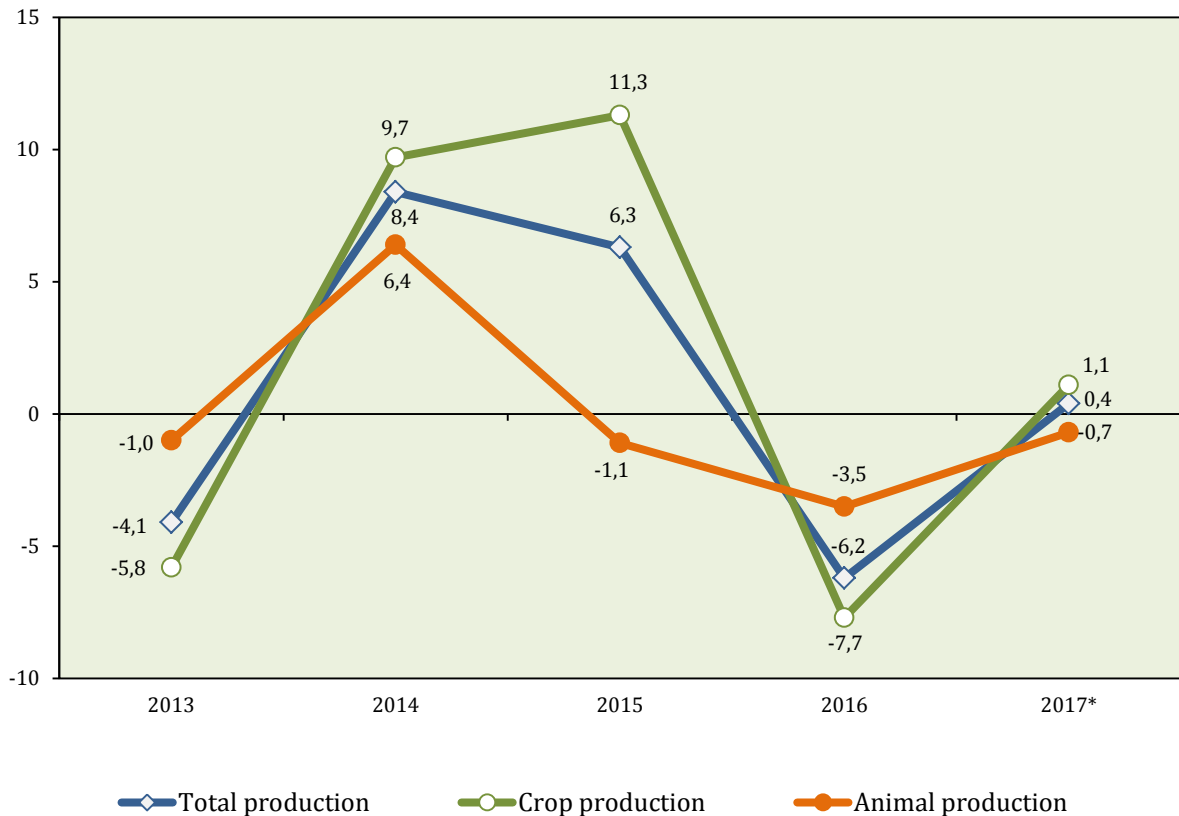
\*\* Preliminary data.

Source: Statistics Lithuania

The value of crop output in 2017, as compared to 2016, was higher by 10.1%. This was conditioned by the increased prices for almost all crop production products. The crop production value increase was impacted by the higher yield of rape, fruit and berries, and grain (36.1, 25.3 and 0.4%, respectively). The livestock production value in 2017, compared to 2016, went up by 26.2% as a result of the increased purchase prices for milk, cattle, pigs and eggs (39.1, 16.4, 9.1 and 1.7%, respectively).

At estimating the gross agricultural production structure by counties, the highest share of crop output in 2016 was found in Šiauliai, Marijampolė and Panevėžys counties (76.5, 70.1 and 69.9%, respectively), and lowest in Alytus, Tauragė and Vilnius counties (accordingly, 50.9, 50.9 and 53.4%). In 2016, if compared to 2012, changes in the share of crop production varied: the highest growth of this share was in Utena and Klaipėda counties (10.2 and 9.1 percentage points, respectively), and its major drop was fixed in Alytus and Kaunas counties (7.9 and 4.9 percentage points, respectively).

The gross agricultural production over the period of 2013–2017 if estimated at comparable prices declined mostly in 2016. Its highest increase was in the year 2014. Crop output in 2017, as compared to 2016, increased by 1.1%, and livestock output dropped by 0.7% (Fig. 1.6).



**Fig. 1.6. Changes in the volume of gross agricultural production\*\* in 2013–2017\*\*\*, %**

\* Preliminary data.

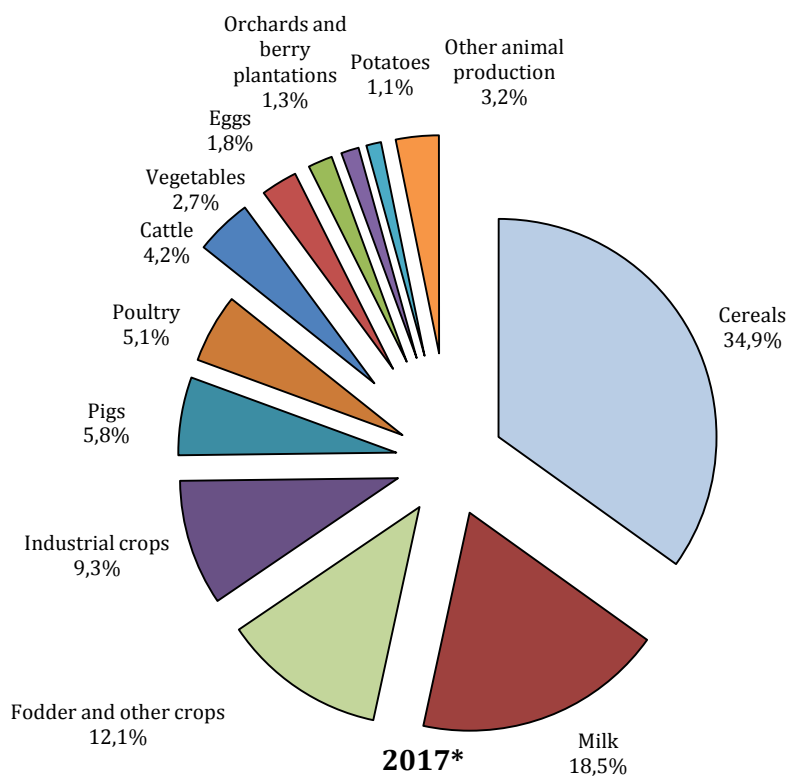
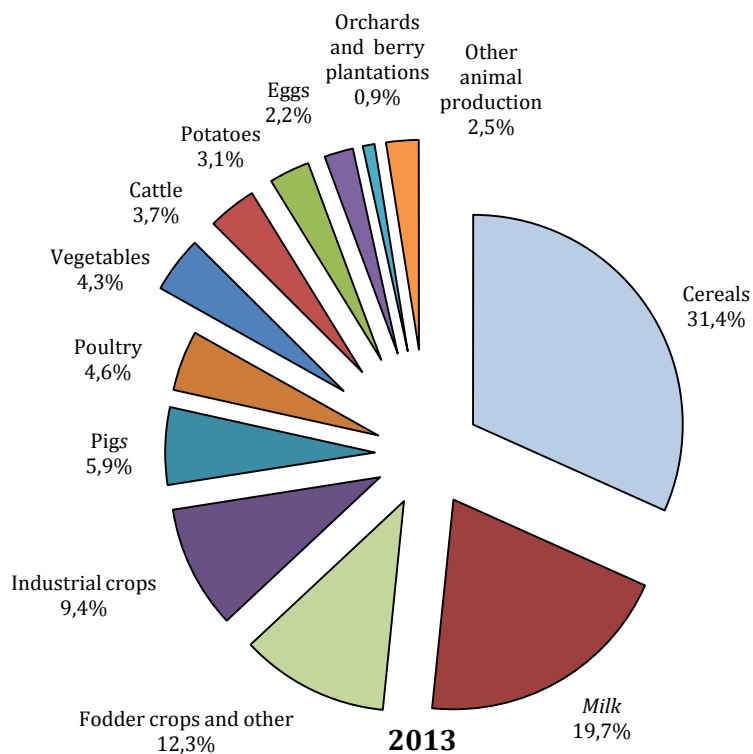
\*\* At constant prices.

\*\*\* Compared to the previous year.

Source: Statistics Lithuania

The highest share of the gross agricultural production in Lithuania in 2013 and 2017 consisted of cereals (respectively, 31.4 and 34.9%) (Fig. 1.7).

In 2017, as compared to 2013, the share of cereals and other livestock production has increased mostly in the gross agricultural production structure (by 3.5 and 0.7 percentage points, respectively), whereas the share of vegetables and milk decreased most significantly (1.6 and 1.2 percentage points, respectively). The main reasons for negative tendencies in the dairy sector were the low purchase prices for milk and relatively lower direct payments as compared to crop products. The insufficient competitiveness of these products, as compared to other countries, contributed considerably to the negative changes in the vegetable sector.



\* Preliminary data.

**Fig. 1.7. Structure of gross agricultural production in 2013 and 2017**

Source: Statistics Lithuania

The gross agricultural production structure in the EU countries varies from country to country. All the EU countries as to the structure of gross agricultural production may be subdivided into three groups: Lithuania is listed in the third group (the first group consists of the countries with the prevailing livestock production (e.g., Ireland, Denmark), the second group – countries where the share of crop and livestock output is almost equal (e.g., Slovenia, Germany), the third group – countries where crop output is predominant (e.g., Romania, Greece)). It is notable that at the beginning of the period under analysis the crop output in Lithuania has made the gross production share that was lower by 2.1 percentage points. In 2017, the crop output share was similar to that in Spain, Croatia, Slovakia and Hungary (Table 1.4).

**Table 1.4. Structure of gross agricultural production in EU countries in 2013 and 2017**

Country	2013			2017		
	crop production, %	livestock production, %	gross agricultural production, EUR/ha UAA	crop production, %	livestock production, %	gross agricultural production, EUR/ha UAA
Ireland	28,3	71,7	1473	22,1	77,9	1613
Denmark	33,9	66,1	3915	31,3	68,7	3796
Finland	38,3	61,7	1816	37,7	62,3	1648
United Kingdom	40,3	59,7	1591	40,0	60,0	1611
Luxembourg	47,3	52,7	2976	40,2	59,8	3014
Malta	40,9	59,1	11472	42,4	57,6	10619
Belgium	44,3	55,7	6511	42,7	57,3	6437
Austria	45,2	54,8	2330	45,7	54,3	2414
Poland	52,0	48,0	1593	45,8	54,2	1651
Estonia	45,8	54,2	871	46,0	54,0	860
Cyprus	46,7	53,3	6089	46,2	53,8	6361
Sweden	48,1	51,9	1863	48,0	52,0	1846
Germany	50,3	49,7	3396	48,8	51,2	3180
Slovenia	52,5	47,5	2349	50,5	49,5	2378
Netherlands	54,3	45,7	13447	54,3	45,7	13882
Latvia	56,9	43,1	623	57,4	42,6	679
Czech Republic	61,8	38,2	1353	59,0	41,0	1292
France	60,8	39,2	2447	59,8	40,2	2360
Portugal	57,4	42,6	1783	59,9	40,1	1892
Slovakia	56,0	44,0	1137	60,2	39,8	1065
Croatia	63,3	36,7	1427	60,2	39,8	1239
Spain	61,1	38,9	1818	60,5	39,5	2036
<b>Lithuania</b>	<b>59,3</b>	<b>40,7</b>	<b>891</b>	<b>61,4</b>	<b>38,6</b>	<b>919</b>
Hungary	63,2	36,8	1561	62,8	37,2	1638
Italy	65,2	34,8	4011	64,2	35,8	3745
Bulgaria	69,8	30,2	826	72,6	27,4	773
Greece	70,9	29,1	1941	73,6	26,4	2015
Romania	75,7	24,3	1233	76,0	24,0	1230

Source: Eurostat.



Lithuania's gross agricultural production per hectare of UAA in 2017 was one of the lowest in the EU. Compared to Denmark where conditions are similar, this indicator was lower by more than 4 times. Such results were mostly impacted by the purchase prices for agricultural products that were lower than in other countries. In 2017, the highest gross agricultural production per hectare of UAA was in the Netherlands, Malta, Belgium and Cyprus. These countries have utilised rationally their natural and industrial resources and selected product production priorities according to their competitive advantages and situation on the market.

Comparing the gross agricultural output per hectare of UAA, one can see that no distinct difference exists between groups. In Lithuania the gross agricultural output per hectare of UAA in 2017 was by 6.9% higher than in Estonia where livestock production makes a considerably larger portion of the gross agricultural output.

Procurement amounts and purchase prices for agricultural products as well as input prices for their manufacture have the strongest impact on the volumes of the gross agricultural production. The volumes and structural changes of the agricultural product production in Lithuania were also determined by the ever changing market conditions. Volumes of separate agricultural products purchased over the period of 2013–2017 have changed unevenly. In 2017, in comparison with 2016, purchase of rapeseed increased by 30.8%, vegetables by 20.3%, and grain by 0.9%, whereas that of fruit and berries decreased by 21.2% and potatoes by 2.8%. Volumes of all purchased animals and livestock products, except pigs and poultry, dropped in 2017, if compared to 2016. Purchase of eggs decreased by 12.2%, cattle by 3.7% and milk by 1.0%. The above changes to a great extent were influenced by the prices of agricultural products and prices for input required for their production.

Price index variation tendencies for agricultural products and inputs somewhat differed over the period of 2013–2017. The purchase price indices of crop and livestock products were highest in 2017 and of inputs in 2015. The lowest purchase price index of crop products was in 2014, livestock products in 2015 and inputs in 2016. Prices for livestock products in 2017, as compared to 2016, increased by 21.0%, crop production by 5.6%, while for inputs fell by 1.4%. These price index variations during the period of 2013–2017 predetermined the disproportion (the so-called price scissors) between the purchase price for agricultural products and price of inputs (Table 1.5).

**Table 1.5. Price indices of agricultural production and inputs in 2013–2017, %**

Indicators	2013	2014	2015	2016	2017
Price scissors	106,1	92,2	89,4	106,8	115,7
Purchase price indices of agricultural production					
total	102,5	87,8	91,4	96,0	114,1
crop production	97,1	85,0	99,5	92,8	105,6
animal production	107,2	90,1	85,3	98,9	121,0
Price index of inputs	96,6	95,2	102,2	89,9	98,6

\* Compared to the previous year.

Source: Statistics Lithuania

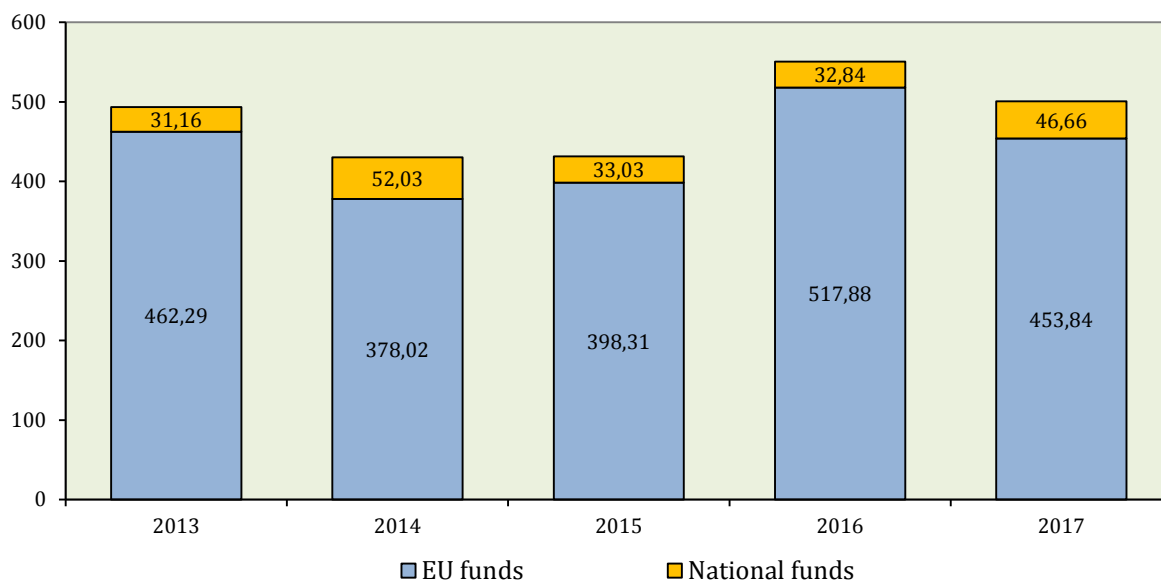
Over the entire period of 2013–2017, the year 2017 was most favourable for agricultural product producers; if compared to the previous years, the purchase prices for agricultural production increased by 14.1%, while for inputs decreased by 1.4%. A situation in the year 2015 was most unfavourable when as compared to 2014 the agricultural production purchase prices dropped by 8.6% and for inputs increased by 2.2%.

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

Lithuania has been a participant of the EU CAP for over 13 years. Lithuania while adjusting its national interests together with the EU implements the CAP programmes seeking to achieve the common goals: to maintain the viable agriculture and rural development, to provide residents with food, to preserve the environment and resources, to reduce social exclusion between the rural and urban population, etc. To achieve these goals, support from the EU and national budget is granted to Lithuania's agricultural entities. In 2017, EUR 1042.2 million – by 2.59% less than in 2016 (EUR 1069.9 million) – was allocated for financing of agriculture.

**The system of direct payments** is a support measure to the largest extent funded by the EU CAP. With their use, it is aimed to assure the long-term and less vulnerable economic viability of farms, making it less dependent on the agricultural production price fluctuations. The substantial part of direct payments is decoupled from production volumes. In Lithuania, direct payments are granted to agricultural activity entities for the declared utilised agricultural area, crops, and animals. Continuing the provision of support under the single area support implementation scheme, in 2017, like in 2016, direct payments in Lithuania have been paid from the European Agricultural Guarantee Fund (EAGF) and from the national budget by granting the transitional national aid (TNA) payments. The share of EAGF funds, allocated for Lithuania's direct payments, in 2017 accounted for 90.9% (EUR 467.1 million) of the total direct payments of Lithuania; the disbursed amount made EUR 453.8 million (Fig. 1.8). If compared to 2016, the share of the allocated EAGF funds increased by 5.6%, and the disbursed amount diminished by 12.4%. Reduction of the disbursed amount was conditioned by higher advance payments in 2016. In 2017, the TNA part, paid out for animals and crop declared in that and previous year, amounted to EUR 46.7 million, i.e. by 42.4% more than in 2016 (EUR 32.8 million). Part of TNA payments foreseen in 2016 was disbursed in 2017.

As in the previous year, in 2017, according to the CAP for 2014–2020, the increasing financial envelope is foreseen and it is intended for supporting direct payments from the EAGF. Due to this reason, in 2017, as compared to 2016, the basic payment, greening payment and payment for first hectares have increased. In 2017, the amount of the basic direct payment, granted to the applicant for UAA areas, comprised 62.8 EUR/ha, i.e. by 5.7% more than in 2016 (Table 1.6).



**Fig. 1.8. Funds for direct payments in 2013–2017, EUR mill.**

Source: Data of National Paying Agency.

**Table 1.6. Direct payments paid from the EU budget in Lithuania in 2013–2017**

Kind of payment	2013	2014	2015	2016	2017
Basic payment, EUR/ha	130,9	114,4	56,7	59,4	62,8
Payment for the first hectares, EUR/ha	–	30,8	48,8	51,8	56,3
Greening payment, EUR/ha	–	–	44,9	46,6	49,2
Young farmer payment, EUR/ha	–	–	45,8	45,8	45,8
Quota sugar payment, EUR/t	99,6	99,6	–	–	–
Coupled support for areas:					
payment for protein crops, EUR/ha	–	–	83,5	60,1	42,0
payment for vegetables grown in heated greenhouses, EUR/a*	–	–	527,0	453,4	208,7
payment for field vegetables (except legumes), EUR/ha	–	–	324,2	310,9	381,8
payment for fruit and berry cultivation, EUR/ha	–	–	207,4	230,3	225,6
payment for seed potatoes, EUR/ha	–	–	–	–	202,2
payment for sugar beet growing, EUR/ha	–	–	–	–	81,2
payment for cereal areas under certified seed, EUR/ha	–	–	–	–	17,9
Coupled support for animals:					
dairy breed cows payment, EUR/head	–	–	80,0	91,0	101,9
beef cattle payment, EUR/head	128,0–162,5	86,5–109,8	108,8	94,0	91,3
dairy breed bulls payment, EUR/head	–	–	76,8	68,8	78,9
sheep (meat breeds) payment, EUR/head	9,0–15,9	6,3–11,1	13,4	10,7	10,5
dairy female goats payment, EUR/head	–	–	41,4	20,7	23,4
Special milk support, EUR/t	–	9,2	–	–	–

\* 1 are = 0,01 ha.

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

Targeting to support more substantially farms smaller by UAA area, the distributive payments for the first 30 ha have been paid to farmers from 2014. In 2017, the payment amounted to 56.3 EUR/ha, i.e. by 8.7% more than in 2016.

The rate of the greening payment in 2017 in Lithuania was 49.2 EUR/ha, i.e. by 5.6% more than in 2016 (46.6 EUR/ha).

Direct payments to young farmers have already been additionally paid for three successive years. This type of direct payments is disbursed with an aim of contributing to retaining young people in the rural regions. From 2015 the rate of complementary direct payments allocated to young farmers in Lithuania amounts to 45.8 EUR/ha.

Worth of mentioning is the continuity of payments in Lithuania relating to production volumes. The coupled support from the EAGF funds is paid for growing 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, dairy bulls, and dairy goats. The year 2017 was distinguished for reduction of financing of part of direct payments (for growing of vegetables in closed ground and growing of protein crops) and transfer thereof to the new reasonable types of coupled direct payments presented to the European Commission (EC) in 2016: the coupled payment for areas with sugar-beet (81.2 EUR/ha) grown, the coupled support for growing potatoes for seed (202.2 EUR/ha), and the coupled payment for crop areas sown with certified seed (17.9 EUR/ha).

In 2017, the coupled payment in Lithuania for cultivation of protein crops amounted to 42.0 EUR/ha, i.e. by 30.1% less than in 2016; for growing of vegetables in closed ground to 208.7 EUR per are (in 2016 – 453.4 EUR per are). Such reduction was determined by two factors: decrease of financing of a financial envelope aimed for these agricultural activities and the increased areas for protein crops and heated greenhouses. The coupled payment for growing of field vegetables (except protein ones) in 2017 reached 381.8 EUR/ha (in 2016 – 310.9 EUR/ha); for growing of fruit and berries – 225.6 EUR/ha, i.e. by 2.1% lower than in 2016.

Farms with type of farming in animal husbandry were supported by paying the coupled payments per dairy cow EUR 101.9 (in 2016, EUR 91.0); per head of beef cattle EUR 91.3, i.e. by 2.9% less than in 2016; per sheep of meat breeds EUR 10.5 (in 2016, EUR 10.7), per dairy bull EUR 78.9 (in 2016, EUR 68.8); per dairy goat EUR 23.4, i.e. by 11.5% less than in 2016 (EUR 20.7).

The referred annual fluctuations in the sizes of the coupled payments depend on the number of supportable units. The number of supportable units being higher than in 2014 (or 2016) that was approved by the EC determined the lower size of payment.

The national aid funds of the transitional period were also targeted for the direct support of farms involved in trending to both crop production and animal husbandry. Without prejudice to the TNA payment procedure coordinated with the EC and taking into account the permissible limits of TNA funding for separate sectors and the available reserve of funds, the TNA payments for quota milk in 2017 got reduced by paying 15.3 EUR/t (in 2016, 15.7 EUR/t) and for ewes 15.3 EUR (in 2016, 15.7 EUR) (Table 1.7).

**Table 1.7. Transitional national aid (TNA) payment rates in Lithuania in 2013–2017**

Kind of payment	2013	2014	2015	2016	2017
TNA payments* for production of:					
protein crops, EUR/ha	13,0	13,0	13,0	23,4	23,4
fibre flax, EUR/ha	43,4	44,0	–	–	–
grain crops, rape, EUR/ha	2,9	–	–	–	–
suckler cows, EUR/head	89,8	87,0	105,0	111,1	111,1
bulls, EUR/head	231,7	173,0	205,0	212,2	212,2
ewes, EUR/head	7,5	5,8	4,4	4,1	3,15
quota milk, EUR/t	18,8	15,1	16,0	15,7	15,3
bull production extensification, EUR/head	8,7	–	–	–	–
slaughtered adult cattle, EUR/head	8,7	–	–	–	–

\* Total sum of coupled and decoupled payments.

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

The TNA payment rates for protein crops (23.4 EUR/ha), for suckling cows (111.1 EUR/head) and bulls (212.2 EUR/head) have not changed as compared to 2016.

According to the National Paying Agency data, the direct advance payments, disbursed in October–November 2017 to farmers, amounted to EUR 214 million, and the remaining part of payments was started to be paid from December. Until the end of 2017 the accounts of the applicants were supplemented with the amount of direct payments totaling EUR 411 million.

**Market regulation measures.** Targeting to protect the market balance of agricultural and food products and to assure the income for manufacturers, every year different market regulation measures are being implemented. The basic measures cover intervention purchase, storage and sale of grain, butter, skimmed milk powder and beef meat from intervention warehouses. The market regulation measures also cover 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 granted for consumption of milk and milk products in educational establishments, and for implementing the programme for promotion of fruit consumption at schools, etc.

Since 2014, upon assurance of the withdrawal of export subsidy forms (direct export subsidies, export credits, etc.) in Lithuania, other market regulation measures have been promoted by supporting trademarks, popularising by electronic communication means the regional products and export of products manufactured by Lithuanian companies, presenting products of Lithuanian origin at international exhibitions, etc. In 2017, EUR 3.5 million was paid under the said scheme (EU funds – EUR 2.6 million, national budget funds – EUR 0.9 million), in 2016, EUR 3.0 million (EU funds – EUR 2.0 million, national budget funds – EUR 1.0 million), i.e. by 16.7% more than in 2016.

The sufficient consumption of fruit, vegetables and dairy products is one of the basic elements of healthy nutrition; therefore, it is important to increase the share of consumed products. Of special importance in ensuring good public health is to develop the proper eating habits in children and juveniles, and educational establishments are the best place to impact and change the children's nutrition habits. Seeking to promote the consumption of dairy products on the domestic market and to reduce the imbalance on the dairy product market, the support programme "Milk for Children" is being implemented in Lithuania. In the course of implementing this programme, in 2017, 941 schools, 625 kindergartens and 8 child foster homes took part in it. In the said educational establishments dairy products were supplied to 222.7 thousand children (by 3.7% more than in 2016, 221.9 thousand).

For implementing this measure in 2017 EUR 3.6 million was paid (of which EUR 3.2 million from the national budget funds). This is an investment that will help to reduce the future expenditure on public health, related to improper nutrition, since currently drinking milk consumption per capita per year is very low, hardly 25 litres. In Poland and Estonia this indicator is around 60 litres, whereas in Finland even 140 litres per capita per year. The most popular products are drinking milk of various fatness, natural yogurt, fresh cottage cheeses, natural cottage cheese, and cheese sticks.

In the school year of 2016–2017, EUR 1409.9 thousand of support funds (excluding value-added tax (VAT)) was allocated from the EU and national budget for promoting the programme for fruit consumption in children's educational establishments. In 2017 the disbursed support amount reached EUR 1601.7 thousand, of which the national budget funds comprised EUR 410.2 thousand. Aiming to use effectively the funds granted for the programme, from 1 November 2016 the limit of the monthly funds per child has been approved making EUR 1.20, excluding VAT. The following products were distributed free to preschool children and primary schoolchildren: apple puree, and, in absence thereof, national quality apples, pears and carrots and, in their absence, national quality apple, pear, currant, strawberry, raspberry, and chokeberry juice and their mixes. The programme involved 121 applicants: 56 suppliers supplied their products to 1503 educational establishments, 65 educational establishments participated in the programme independently. In total, the programme covered the participation of 220.6 thousand children.

In 2017, like in 2016, support was granted to groups of fruit and vegetable producers for withdrawal from the market of products and non-harvesting measures. Due to the change in the approval of the Rules for granting the provisional additional support to fruit and vegetable growers, the quantity of products intended for withdrawal from the market during the period from 1 July 2016 to 30 June 2017 in Lithuania was distributed as follows: apples and pears 2000 t; tomatoes, carrots, sweet paprika, cucumbers and gherkins 900 t; other products, except apples, pears and carrots, referred to in Part 2 of Article 1 of Regulation (EU) No. 1031/2014 – 1000 t. In the above-mentioned period 587.0 t of carrots was withdrawn from the market with the view of their free distribution. The support measure was used by 4 farmers, and support allocated to them amounted to EUR 75.2 thousand. In total, EUR 52.1 thousand was paid in 2017.

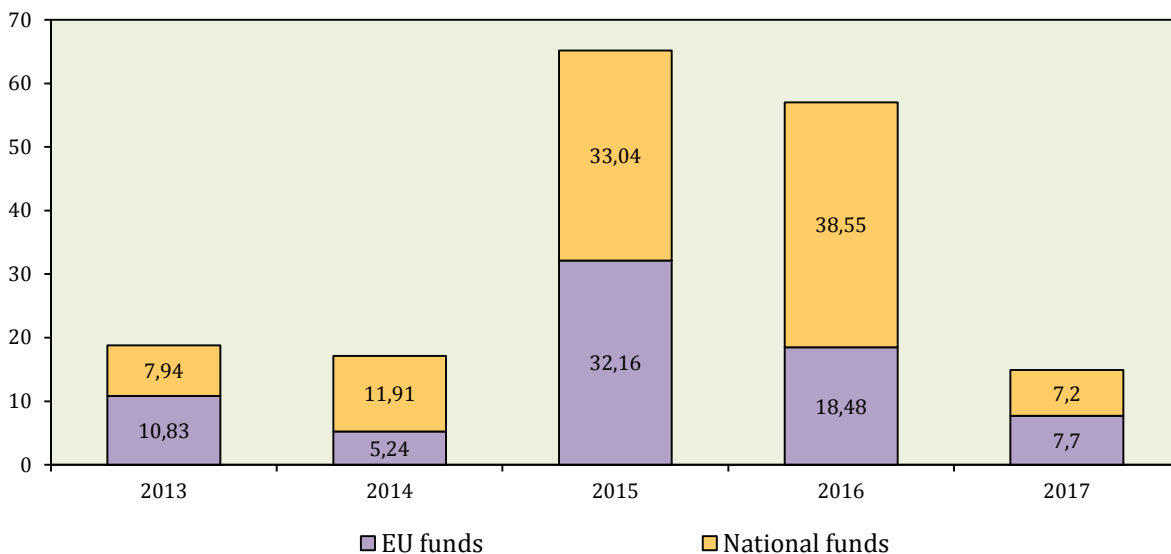
In 2017, services for private storage of agricultural and food products and intervention product purchase have been used. In 2017, like in 2016, butter, skimmed milk powder and cheese were under storage. For intervention it was possible to sell butter, skimmed milk powder and grain. In 2017, under the private storage measure EUR

267.0 thousand was disbursed, i.e. by 24% less than in 2016, but by 57% more than in 2016 (EUR 169.9 thousand). For intervention purchases in 2017 EUR 279.0 thousand was spent, i.e. by 42% more than in 2016 – EUR 195.8 thousand, and in 2015 EUR 169.9 thousand. Support for both private storage and expenses for intervention purchases have been 100% financed from the EU budget funds

During 2015–2016, the total single special support was paid to milk producers who suffered losses due to Russia’s import embargo. In 2017, however, a payment was continued under the provisional exclusive support to milk producers, under which the last EUR 22.0 thousand was paid out. Under these both measures in 2016 EUR 42.1 million was disbursed, in 2015 EUR 52.47 million.

To compensate losses as a result of African swine fever to pig breeders in Zone III who sold pigs to slaughterhouses and lost part of income due to differences in prices, as compared to the average purchase price for pigs paid in the country, in 2017 in Lithuania EUR 522.8 thousand (in 2016 EUR 963.2 thousand), of which 50% consisted of the national budget fund, was paid.

In 2017, a total of EUR 14.9 million, i.e. by 71.6 less than in 2016 – EUR 57.0 million, in 2015 – EUR 65.2 million, was spent for funding of market regulation measures in Lithuania (Fig. 1.9). Such decrease was conditioned due to the withdrawal of single measures to support the milk sector.



**Fig. 1.9. Funds for market regulation measures in 2013–2017, EUR mill.**

Source: Data of National Paying Agency.

The EU budget funds for the market regulation measures constituted EUR 7.7 million, the national budget funds EUR 7.2 million.

**Rural development measures.** Alongside the direct support of farmers, the CAP aims to achieve the rural development targets, harmonious development of rural localities, preservation of natural resources and assurance of generation renewal. The long-term investment measures that are in progress help to enhance the economy of rural localities and to improve rural welfare. In 2017 the applicants were willingly using

the opportunity to apply for support under the Lithuanian Rural Development Programme (RDP) for 2014–2020. Collection of applications was called for the major part of the supported rural activities. Throughout 2017, nearly 100 thousand of applications were collected, i.e. by 12% less than in 2016 (113.7 thousand). According to all applications collected in 2017, support amounting to EUR 268.0 million was requested (by 30.6% less than in 2016), and the disbursed amount made EUR 328.5 million, i.e. by 7.7% more than in 2016 (EUR 304.9 million).

In 2017, as in 2016, the significant part of applications (about 83 thousand) was submitted for support according to area-related compensatory measures: “Agri-environment and Climate” (4.5 thousand), “Organic Farming” (2.7 thousand), “Natura 2000 Payments and Payments Related to the Common Water Framework Directive” (3.9 thousand), and “Payments to Farmers in Areas with Natural and Other Specific Handicaps” (71.8 thousand).

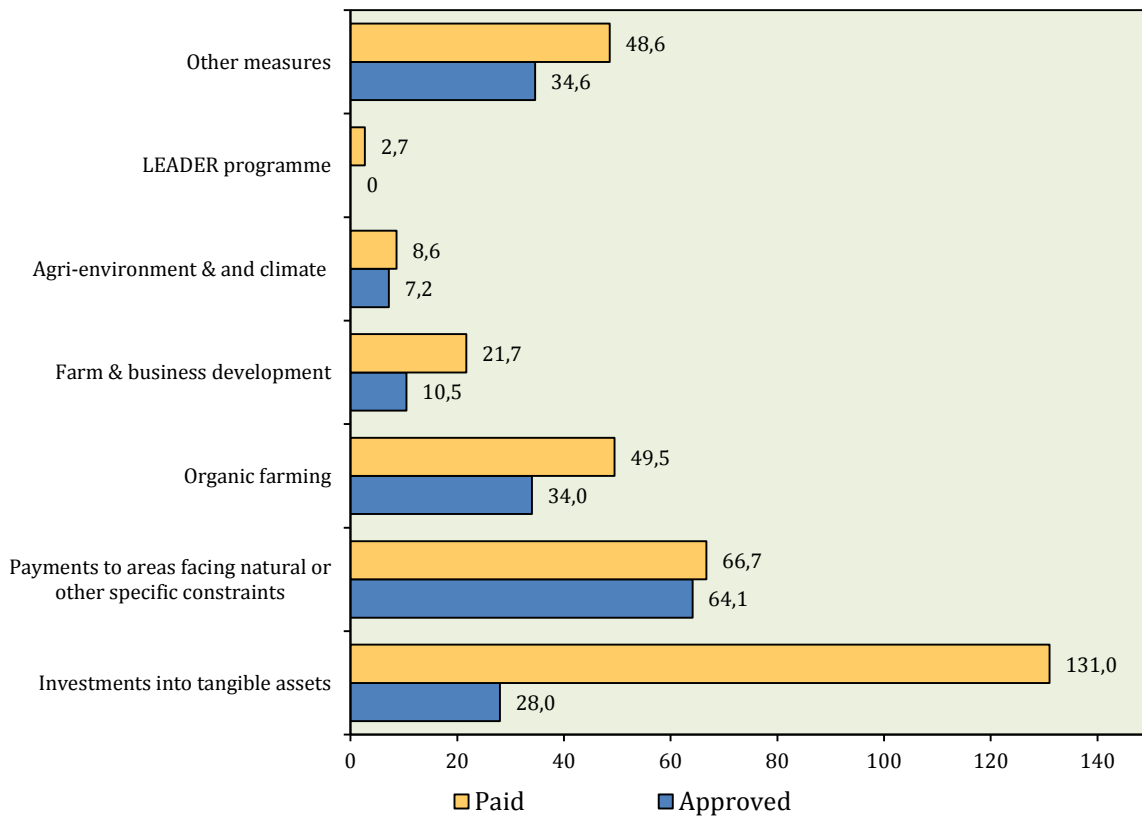
Measures directly related to agriculture further remain in great request by the areas of activity “Support for Investments into Agricultural Holdings” (880 applications) and “Support for Setting Up of Young Farmers” (321 applications), whereas in 2017 no calls for submission of applications for “Support for Small Farms” were present. With all the above-said measures put together, 1201 applications have been submitted. According to the National Paying Agency data, most popular investments in the said areas of activities are: new agricultural machinery and equipment (tractors, grain harvesting combines, and other agricultural cultivation equipment), milking equipment, and construction and reconstruction expenses.

The total value of the requested support for investment in agricultural holdings amounts to EUR 33.8 million, of which EUR 27.4 million has been approved. According to the obligations of the previous year, EUR 99.7 million was paid out in 2017.

Under the RDP measure “Farm and Business Development”, the activity “Support for Investments in Creation and Development of Economic Activities” in 2017 was ranked second by popularity. In 2017, EUR 22.2 million of support was requested for implementing that activity, however, it was by 39.2 lower than in 2016. Support for activities “Support for Setting Up of Young Farmers” was actively applied for in 2017 requesting EUR 11.6 million. Demand for support was higher by almost 21.5%; EUR 9.8 million was approved.

In 2017, as in the previous year, support for organic farming has gained special interest. In 2017, applications for support amounting to EUR 43.54 million were received, i.e. by 3.5% less than in 2016. Even though in 2015 payments under this measure were not performed, in 2016, however, support for over EUR 41 million was disbursed, and in 2017, EUR 49.5 million (Fig.1.10).





**Fig. 1.10. Funds for rural development measures approved and paid\* in 2017, EUR mill.**

\* Including funds of previous years.

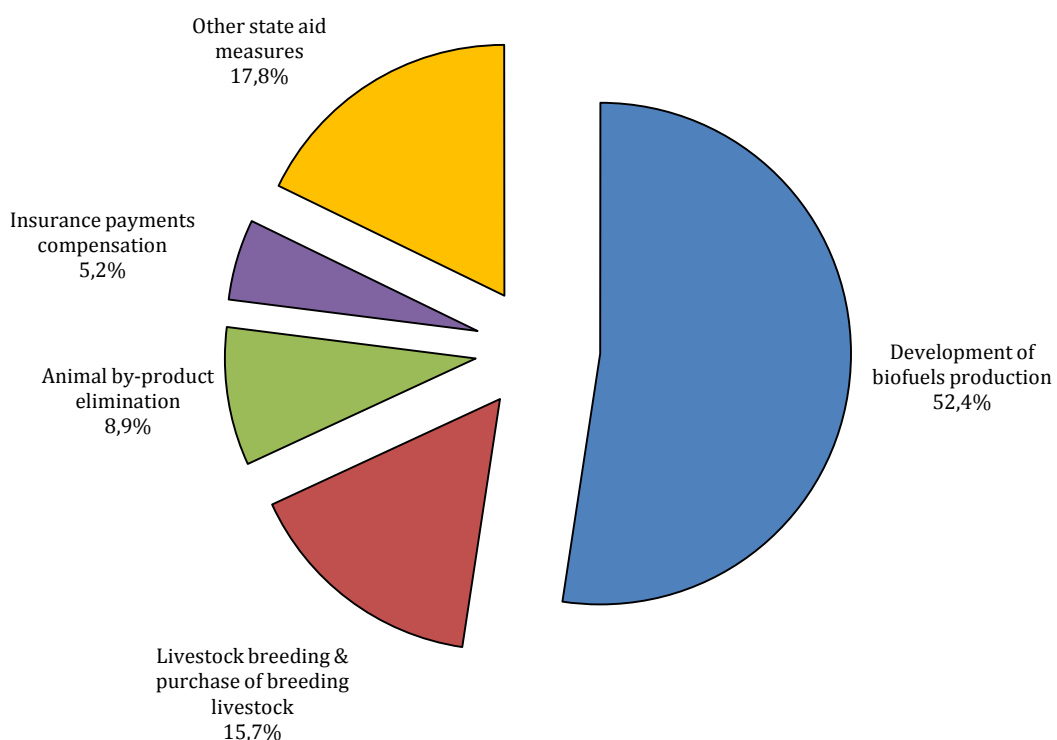
Source: Data of National Paying Agency.

Encouraging the community-initiated local development, 13 local development strategies have been approved in 2017 under the area of activity of the “LEADER” measure “Support for Implementation of Local Projects under Local Development Strategies”. To implement the rural strategies EUR 108.9 million is envisaged for the period of 2014–2020. Under the “LEADER” area of activity “Support for Local Action Group Activities and Activation of Population” in 2017 EUR 2.7 million was disbursed. In 2016, like in 2015, major payments under the RDP measures were made in Vilnius, Panevėžys and Utena counties – EUR 71.2 million, EUR 46.3 million and EUR 41.7 million, respectively, the least amount in Alytus County – EUR 15.9 million. In 2017, applications were most actively submitted in Utena, Vilnius and Panevėžys counties – 19.6, 16.6 and 10.9 thousand, respectively, the least number in Marijampolė County – 2.9 thousand.

**State aid.** To develop the competitive and effective agriculture and food sector, to improve agricultural production and food product quality, the State aid measures are being implemented in Lithuania. The funds from the national budget are allocated for implementing these measures. In 2017, the following State aid measures were funded: biofuel production; compensation of part of insurance premiums for agricultural activity entities; pedigree livestock breeding; acquisition of pedigree animals; animal by-products handling; safeguarding of certified national heritage products; production of

qualitative agricultural and food products; promotion of popularisation and sales; agricultural advisory services; performance of applied and international research; know-how transfer and information activities, etc.

In 2017, as compared to 2016, the funding of the State aid measures got increased in Lithuania by 16.8% (up to EUR 28.8 million). The major portion of the State aid funds in 2017 was disbursed under the measure “Support for Biofuel Production Development” – EUR 15.1 million (52.4% of the total funding of the State aid measures in 2017), i.e. by 59.7% more than in 2016 (EUR 9.5 million). Such an increase was conditioned due to the payment in 2017 of debts of the previous year. Under the above-mentioned measure, the State aid is granted by compensating part of the price for rape and cereals purchased for the production of rape oil and dehydrated ethanol.



**Fig. 1.11. Structure of state-financed measures in 2017**

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

Farmers in 2017, like in the previous year, used actively the crop insurance services. In 2017, under the State aid measure “Support for Compensating Insurance Premiums” EUR 1.5 million was disbursed from the national budget funds. Even though this amount in 2016 was by 73.3% higher (comprised EUR 2.6 million), due to the changed source of financing in 2017 payments for compensating insurance premiums for crops and plants were also made from the EU budget funds by paying support under the RDP measure “Risk Management” activity area “Crop, Animal and Plant Insurance Premiums”, amounting to EUR 1.4 million. During 2016–2017 the total sum of support under the referred measure increased by 11.5%, from EUR 2.6 million to 2.9 million.

Seeking to improve the quality of manufactured agricultural products and the genetic quality of the herds of cattle, sheep and goats of meat breeds with high-valued

pedigree animals, improving the quality of manufactured agricultural products, in 2017 under the State aid measures “Pedigree Livestock Breeding” and “Support for Acquisition of Pedigree Animals” EUR 4.5 million was disbursed – 15.7% of the total funds foreseen for the State aid measures (due to low popularity and saving the national budget funds, the aid allocated for these measures was by 6.7% lower than in 2016).

In 2017, as in the previous year, the State aid was actively used seeking to utilise the dead animals. Under the aid measure “Support for Handling of Animal By-products” in 2017 EUR 2.6 million was disbursed (8.9 % of the funds foreseen for funding of the State aid measures), i.e. by approx. 8.8% less than in 2016.

In 2017, support was foreseen for breeders of beef cattle and sheep of meat breeds, dairy bulls, and dairy goats. This State aid is provided to those livestock breeders who were not eligible for the coupled support payments in 2015 for beef cattle and sheep of meat breeds, dairy bulls, and dairy goats. The amount of support to eligible livestock breeders could not exceed EUR 54.4 per beef cattle head, EUR 6.7 per sheep of meat breeds, EUR 38.3 per dairy bull, and EUR 20.7 per dairy goat. Under this measure a total of EUR 11.0 thousand of the funds foreseen for funding of the State aid measures was disbursed.

The State aid measures in 2017, as in the previous year, have contributed to tackling problems, faced by agricultural entities. Part of the continuous measures has been adapted according to the 2017 needs, and due to the unwarranted payment of special measure payments from the EU budget fund because of the administrative obstacles, as compensation in 2017 was financed from the national budget.

#### 4. Economic entities in agriculture and manufacture of food products

**Agricultural entities.** According to the AIRBC data, the number of agricultural entities who declared UAA by categories has changed unevenly within 2013–2017: the number of agricultural companies and other agricultural enterprises increased by 18.7%, while the number of farms owned by natural persons decreased by 13.7% (Table 1.8). These tendencies are continuing over the entire period under study.

**Table 1.8. Number of agricultural entities who declared agricultural area in Lithuania in 2013–2017**

Agricultural entities	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Agricultural companies and enterprises	844	938	1012	1016	1002	18,7
Households, thou.	150,2	141,5	137,9	135,9	129,6	-13,7

Source: Data of the Simplified Direct Payments Information System.

The average size of a farm by the UAA area declared by all agricultural entities in 2017 in Lithuania was 22.2 ha (Table 1.9), i.e. by 4.7% larger than in 2016 and by 20.0%

larger than in 2013. In total, the agricultural entities in 2017 declared the number of farms that was by 4.7% lower than in 2016, and their declared area remained almost the same (decreased by 0.01%). Even though in 2017, as in the previous year, farms with up to 5 ha constituted around half of the farms which declared UAA, their number, however, if compared to the previous year, got decreased by 5.8%. The number of such farms as compared to 2013 got reduced by 15.1 thousand, or by 19.7%. A group of farms with 5.1–10 ha has been reducing with each year. Within the reference period, the number of farms in this group reduced by 16.7%, 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 4.7%. In the period under analysis the number of farms in the farm groups with 20.1 to 50 ha, 50.1–100 ha and 100.1–500 ha has increased (1.7%, 5.7% and 16.3%, respectively). In the group of farms which declared more than 500 ha no changes occurred.

**1.9 lentelė. Ūkių struktūra pagal deklaruotą žemės ūkio naudmenų plotą Lietuvoje 2013–2017 m.**

Table 1.9. Structure of farms by declared agricultural area in Lithuania in 2013–2017

Farm size, ha	2013		2014		2015		2016		2017	
	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %	number, thou.	share, %
≤ 5	76,6	50,8	70,2	49,2	66,7	48,1	65,3	47,7	61,5	47,1
5,1–10	33,6	22,2	31,2	21,9	30,3	21,8	29,7	21,7	28,0	21,4
10,1–20	19,0	12,6	18,7	13,2	18,7	13,5	18,8	13,7	18,1	13,8
20,1–50	11,8	7,8	12,0	8,4	12,4	8,9	12,2	8,9	12,0	9,2
50,1–100	5,3	3,5	5,3	3,7	5,6	4,0	5,6	4,1	5,6	4,3
100,1–500	4,3	2,8	4,5	3,2	4,6	3,3	4,9	3,6	5,0	3,8
> 500	0,5	0,3	0,5	0,4	0,5	0,4	0,5	0,4	0,5	0,4
All farms	151,1	100,0	142,5	100,0	138,9	100,0	137,0	100,0	130,6	100,0
Average farm, ha	18,5		19,9		20,6		21,2		22,2	

Source: Data of the Simplified Direct Payments Information System.

The declining number of farms was predetermined due to several factors. Part of the senior farmers, being granted the EU support, is retreating from the commodity agricultural production. Moreover, some farmers refuse to declare areas because of the stringent agrarian and environmental requirements as regards the good condition of the farm.

The 2016 Eurostat analysis of a farm structure in the EU countries by area and number shows that 85% of the farms are small, with up to 20 ha. They cover 24% of the area of all farms in the country. The relatively smaller farms are in Romania (99% by number, 45% by area), Greece 7 (96%, 44%, respectively) and Slovenia (94%, 66%). In Malta and Cyprus, farms with up to 20 ha are prevailing. The major share in the structure of large farms (over 100 ha) belongs to Luxembourg (24% by number, 58% by area), France (22%, 64%), the United Kingdom and Denmark, accordingly, each 22% by

number, and by area 75% and 72%. In Slovakia and the Czech Republic, farms with more than 100 ha by area constitute accordingly 89% and 88% of all utilised agricultural areas, by number – 9% and 18%. In the referred countries, however, farms with less than 5 ha constitute by number 56% and 19%, respectively. In Lithuania, farms with areas over 100 ha comprise 4%; 50% of all UAA areas belong to them (Table 1.10).

**Table 1.10. Farm structure by area and number in the EU countries in 2016, %**

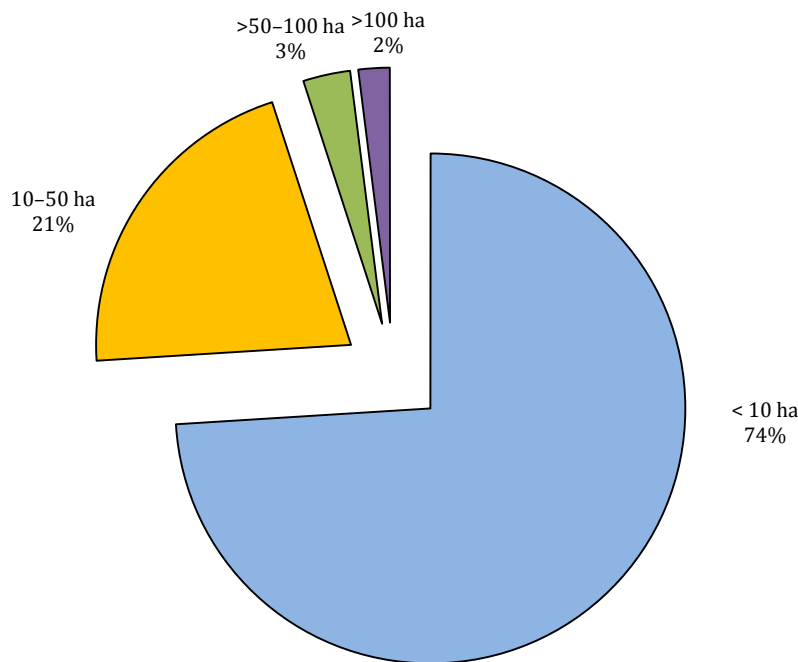
Country	<5 ha		5,1–20 ha		20,1–50 ha		50,1–100 ha		>100 ha	
	area	number	area	number	area	number	area	number	area	number
Belgium	1	14	10	31	27	30	35	19	27	7
Bulgaria	3	83	4	8	6	4	5	2	82	3
Czech Republic	0	19	3	36	4	18	5	9	88	18
Denmark	0	6	6	39	9	21	13	13	72	22
Germany	0	9	7	37	14	24	22	18	57	13
Estonia	1	32	6	37	7	14	8	6	78	11
Ireland	1	7	13	36	35	38	28	15	23	4
Greece	19	77	25	18	15	3	7	1	34	0
Spain	4	52	11	27	14	11	15	5	56	5
France	1	24	3	18	9	16	23	19	64	22
Croatia	11	69	17	22	13	5	16	3	43	1
Italy*	11	59	23	28	22	8	17	3	27	1
Cyprus	28	90	23	8	16	2	14	1	19	0
Latvia	3	35	16	44	14	13	10	4	57	5
<b>Lithuania</b>	<b>7</b>	<b>50</b>	<b>17</b>	<b>35</b>	<b>13</b>	<b>8</b>	<b>13</b>	<b>4</b>	<b>50</b>	<b>4</b>
Luxembourg	0	16	3	17	8	16	31	27	58	24
Hungary	5	81	10	11	11	4	11	2	63	2
Malta	78	96	21	3	1	0	0	0	0	0
Netherlands	1	20	10	29	31	30	35	17	23	5
Austria	4	31	21	37	36	23	21	6	18	2
Poland	13	54	34	36	21	7	11	2	21	1
Portugal	9	71	13	19	11	5	9	2	58	2
Romania	29	92	16	7	4	1	3	0	48	0
Slovenia	20	59	46	35	20	5	7	1	7	0
Slovakia	2	56	3	24	3	7	3	4	89	9
Finland	0	2	9	34	24	34	30	20	37	11
Sweden	1	11	10	45	13	19	17	12	59	13
UK	0	10	4	29	8	22	13	17	75	22

\* 2013

Sources: Data by Eurostat and AIRBC.

According to the AIRBC data, at the end of 2017, the Register of Holdings held a record of 167.0 thousand holdings (further holdings). This is by 4.3% less than in the previous year. Reduction in the number of holdings is conditioned by the fact that from

2011 at the beginning of each year the holdings not complying with the requirements of the law are selected and deregistration of the holdings, the data thereof has not been renewed within the past three years, is initiated (at the end of the year 2017, 10.8 thousand holdings were deregistered). With the number of holdings declining, the land area of holdings held by the owners also decreased – by 1.4%, comparing to 2016, to 3.03 million ha of the total land area. The UAA area of holdings decreased by 0.3% during the year and reached 2.44 million ha. The average size of a holding in 2017 by the total area of a holding constituted 18.1 ha (during 2013–2017 increased by 27.5%), by UAA – 14.6 ha (within the reference period increased by 20.7%). As in the previous year, even 74% of all the holdings were up to 10 ha, and holdings, exceeding 50 ha, accounted for 5% (Fig. 1.12).

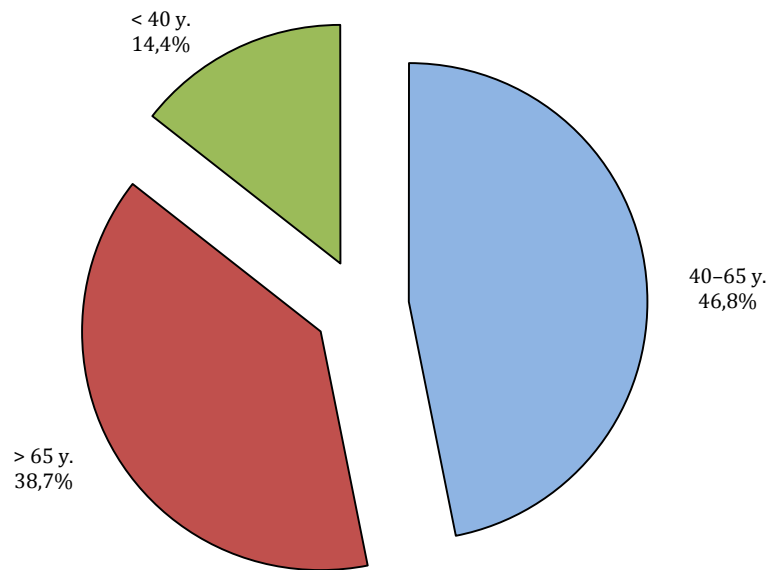


**Fig. 1.12. Distribution of agricultural holdings by size group in Lithuania in 2017, %**

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

More than a half of the UAA is held by the owners of registered farmers' farms – 73.4% of the total number of the owners of holdings. At the end of 2017, as compared to 2016, the number of registered farmers' farms decreased just by 0.1% – to 122.5 thousand. However, as compared to 2013, their number increased by 4.3%. The average size of the registered farmer's farm remained the same as in the previous year – 9.4ha. In the 2017 farm structure, farms using up to 5 ha of land prevailed (58.4%). Farms with 5 to 10 ha constituted 21.0% and those from 10 to 50 ha – 19.3%. The largest farms with over 50 ha accounted for 1.4% of the total farmers' farms.

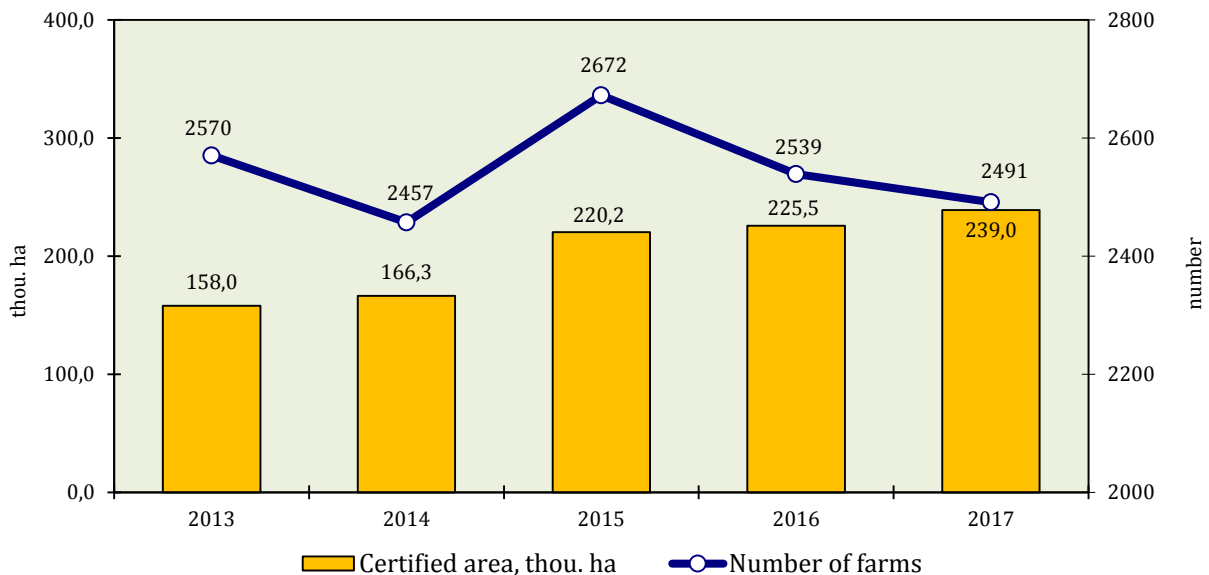
In 2017, the age of 46.8% of all registered farmers was 40–65 years. The share of young farmers (under 40) comprised 14.4%, and farmers at the age of retirement (over 65) – 38.7% (Fig. 1.13). As compared to 2013, the number of young farmers reduced by 9.8%, the number of the registered farmers at the age of retirement by 1.3%, and the number of farmers at the age of 40–65 increased by 15.3%.



**Fig. 1.13. Distribution of registered farmers by age in Lithuania in 2017, %**

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

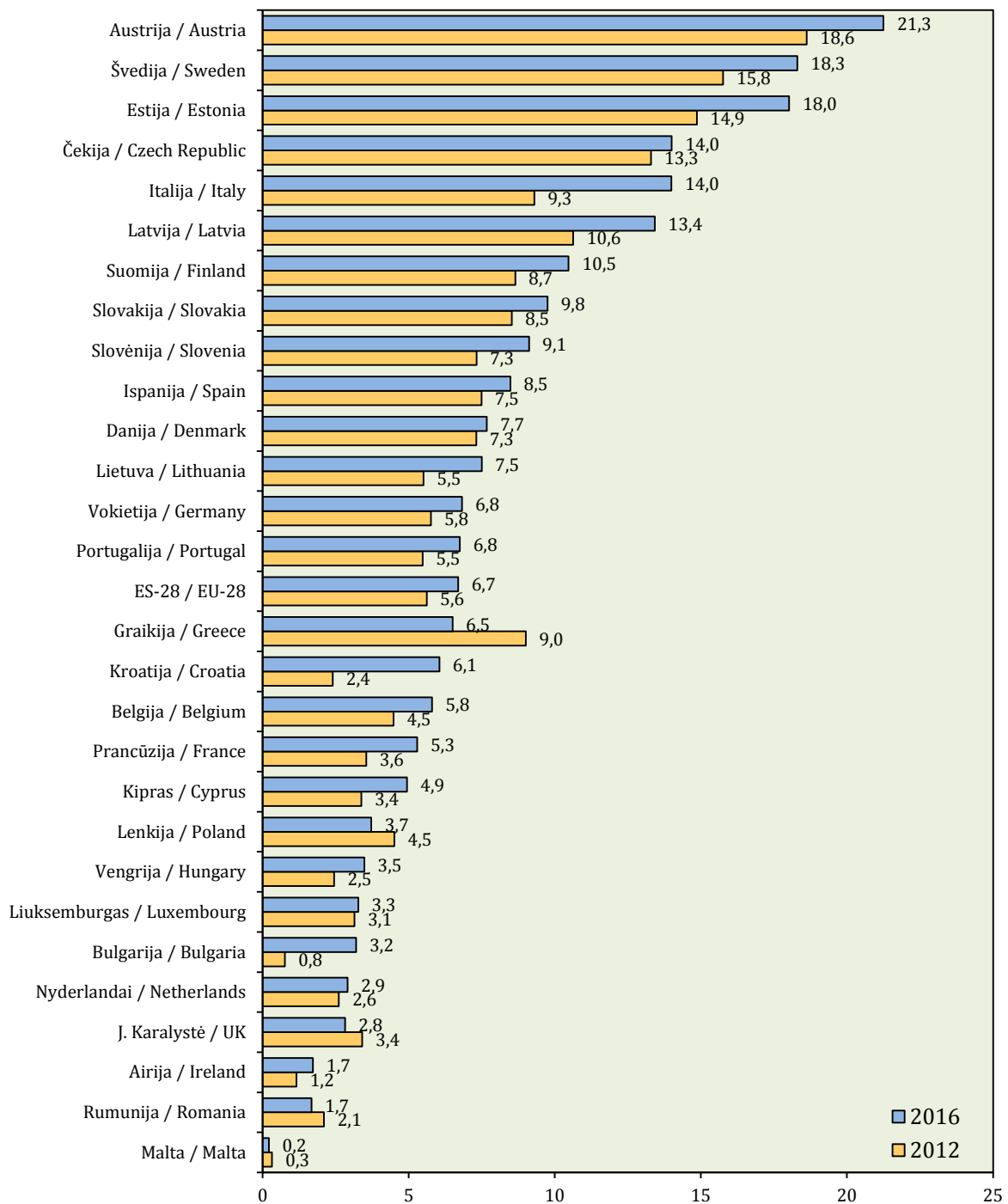
In 2017, the certified organic production area in Lithuania covered 239.0 thousand hectares. During the period of 2013–2017 the certified area increased by 51.3%, and the number of farmers decreased by 3.1%. In 2017, as compared to 2016, the certified area increased by 6.0%, the number of farms decreased by 1.7% (Fig. 1.14). The average size of the certified farm (including fisheries farms) in 2017, as compared to 2016, increased from 88.8 ha to 95.9 ha. 44.2% of the total organic farms kept animals, mostly cattle (58.0 thousand heads), sheep (26.9 thousand), and poultry (13.5 thousand). Comparing to 2016, the number of certified poultry increased by 68.8% and cattle by 3.8%, whereas the number of sheep dropped by 1.1%.



**Fig. 1.14. Number of organic farms and certified area in Lithuania in 2013–2017**

Source: Data by certification body „Ekoagros“.

The share of organic areas in the UAA structure is close to the average in EU-28. These areas in Lithuania in 2016 comprised 7.51% of UAA; in EU-28, on the average, 6.7%. In the referred year, the major part of organic areas is located in Austria, Sweden and Estonia, 21.3%, 18.3% and 18.0%, respectively (Fig. 1.15). During 2012–2016 the share of organic areas increased mostly in Italy – by 4.7 percentage points, in Croatia by 3.7 percentage points and in Estonia by 3.2 percentage points.

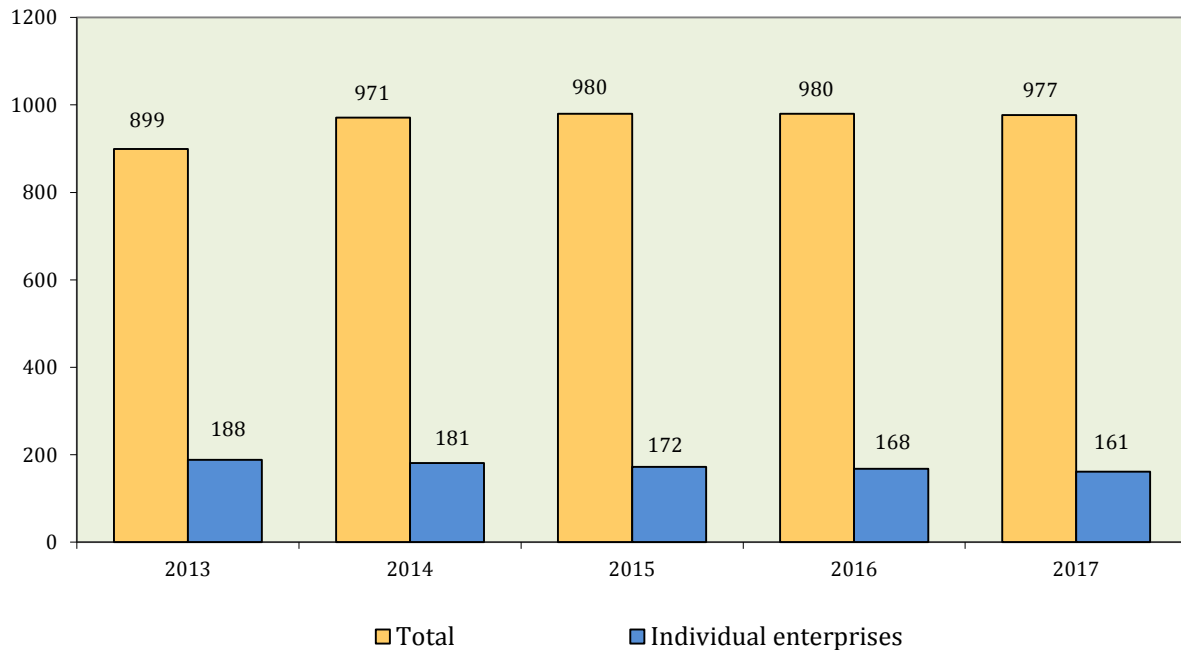


**Fig. 1.15. Share of organic area in total UAA in EU countries in 2012 and 2016, %**

Source: Eurostat.



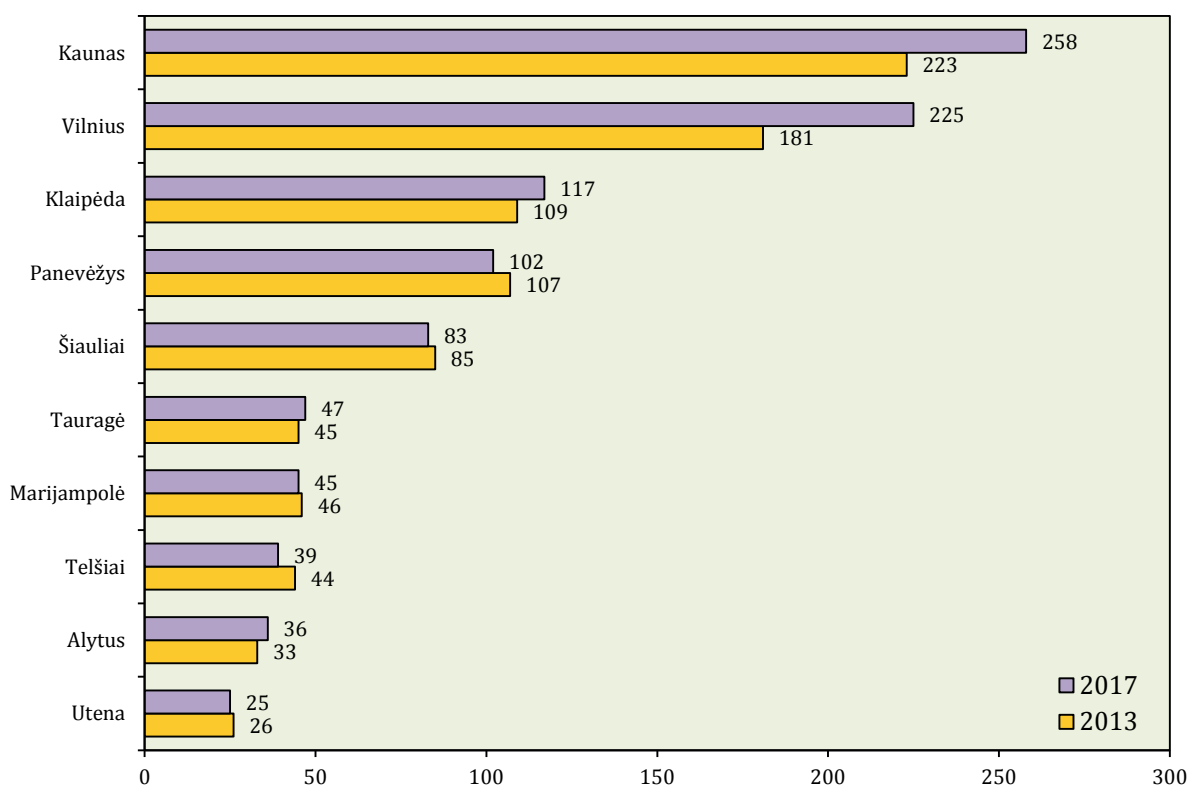
**Food industry enterprises.** At the end of 2017, 977 enterprises for manufacture of food products and beverages were in operation in Lithuania. 16.5% of all enterprises were individual companies. During the period of 2013–2017 the total number of enterprises increased by 8.7%, and the number of individual companies decreased by 14.4% (Fig. 1.16).



**Fig. 1.16. Number of enterprises of manufacture of food products and beverages in Lithuania in 2013–2017 (at the end of the year)**

Source: Statistics Lithuania

According to the data of the Department of Statistics of Lithuania, most of food production companies are located close to the major cities. At the end of 2017, 26.4% of all food and beverage production enterprises operated in Kaunas County and 23.0% in Vilnius County (Fig. 1.17). The lowest number of food industry enterprises was in the counties of Utena and Alytus, accounting for 2.6% and 3.7%, respectively. In 2017, if compared to 2013, the number of enterprises increased most of all in Vilnius, Kaunas and Alytus counties – by 24.3%, 15.7% and 9.1%, respectively. The most considerable decrease was noted in Telšiai (11.4%) Panevėžys (4.7%), and Utena (3.8%) counties.



**Fig. 1.17. Number of enterprises of manufacture of food and beverages by county in Lithuania in 2013 and 2017 (at the end of the year)**

Source: Statistics Lithuania

Over the reference period of 2013–2017, the number of enterprises in the sectors varied ambiguously. The number of enterprises engaged in the manufacture of grain milling products, starch and starch products has dropped by 10.7%. The number of enterprises within five years mostly increased in the sector of preparation, processing and canning of fruit, berries and vegetables and in the sector of preparation and processing of fish and fish products, by 41.0% and 11.8%, respectively (Table 1.11).

**Table 1.11. Entities of manufacture of food products in Lithuania and their production\* sold in 2013–2017**

Indicators	2013	2014	2015	2016	2017
Manufacture of food products and beverages					
Number of enterprises	899	971	980	980	977
Number of employees	41385	42843	42480	42051	42279
Sales in domestic market, EUR mill.	2390,2	2501,6	2483,8	2417,0	2600,9
Export value, EUR mill.	1765,3	1768,3	1656,3	1699,8	1801,0
Manufacture of grain mill products, starches and starch products					
Number of enterprises	28	29	28	26	25
Number of employees	798	1213	1196	1146	1229
Sales in domestic market, EUR mill.	65,7	53,3	55,5	57,2	50,7
Export value, EUR mill.	115,9	125,5	149,2	161,2	170,1

Indicators	2013	2014	2015	2016	2017
Production of meat and meat products					
Number of enterprises	167	177	167	177	180
Number of employees	8185	8415	7909	7458	7704
Sales in domestic market, EUR mill.	536,2	553,3	507,8	397,6	425,5
Export value, EUR mill.	167,2	141,4	140,0	137,5	149,4
Production of milk and dairy products					
Number of enterprises	31	33	33	31	31
Number of employees	7735	7557	7444	7283	7196
Sales in domestic market, EUR mill.	544,7	554,1	499,9	532,0	562,1
Export value, EUR mill.	581,0	594,3	408,0	416,6	505,9
Preserving and processing of fish and fish products					
Number of enterprises	51	53	58	60	57
Number of employees	4658	4895	4611	5123	5400
Sales in domestic market, mill. EUR	113,8	186,1	198,9	190,3	287,7
Export value, mill. EUR	289,8	323,0	372,8	385,2	344,2
Preparation, processing and preserving of fruit, berries and vegetables					
Number of enterprises	39	41	46	50	55
Number of employees	1024	1058	1186	1218	1191
Sales in domestic market, EUR mill.	43,2	42,4	45,4	46,3	46,9
Export value, EUR mill.	38,2	30,6	30,9	38,9	45,5

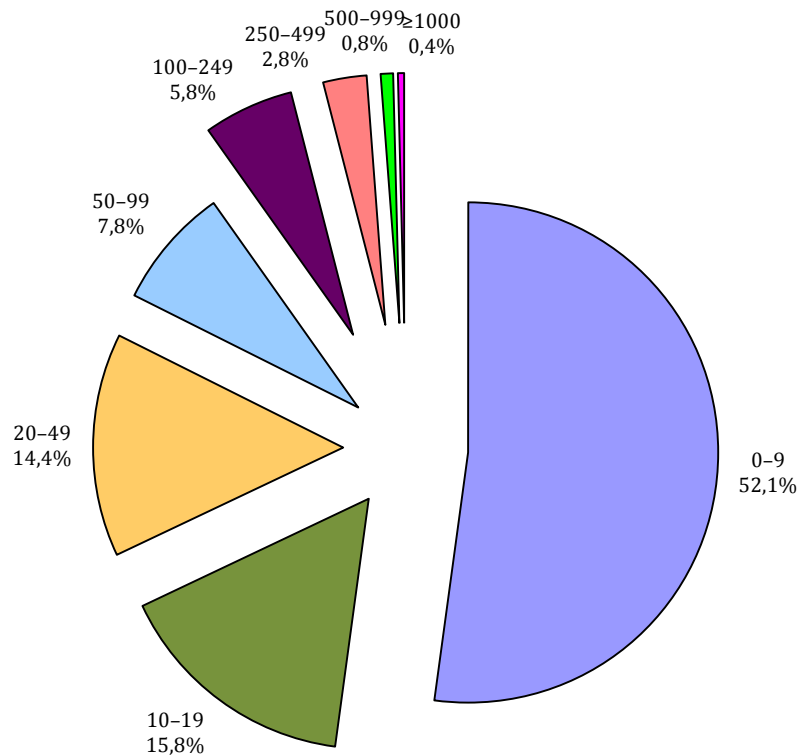
\* VAT and excise duty incl.

Source: Statistics Lithuania

The total number of employees involved in the manufacture of food products and beverages in 2017, as compared to 2016, decreased insignificantly, by 0.5%, and in comparison with 2013 increased by 2.2%. During the reference period, the highest shrinkage of the number of employees was fixed in 2016, and increase in 2014. Tendencies by sector varied. In 2017, comparing to 2016, the number of employees augmented most significantly in the enterprises involved in the manufacture of grain milling products, starch and starch products (7.2%) and those involved in the preparation and processing of fish and fish products (5.4%). The number of employees in other sectors went on diminishing within the past year, mostly in the production sector for preparation, processing and canning of fruit, berries and vegetables (2.2%). In 2017, the majority of enterprises operated in the sectors of bakeries and manufacture of bakery products (378 enterprises) and manufacture of meat and meat products, whereas by the average employee number per enterprise they were relatively smaller than the enterprises in other sectors.

With the number of enterprises involved in the manufacture of food products and beverages decreasing, the average number of employees per enterprise increased by 1%. In 2017, the average number of employees per enterprise in different sectors varied substantially: the lowest number was in the sector of animal and vegetable fats and oils

(10 employees). The average number of employees per enterprise involved in the preparation, processing and canning of fruit, berries and vegetables was 22 employees, the highest number was in the enterprises involved in the production of milk and dairy products and in the preparation and processing of fish and fish products (232 and 95 employees, respectively).

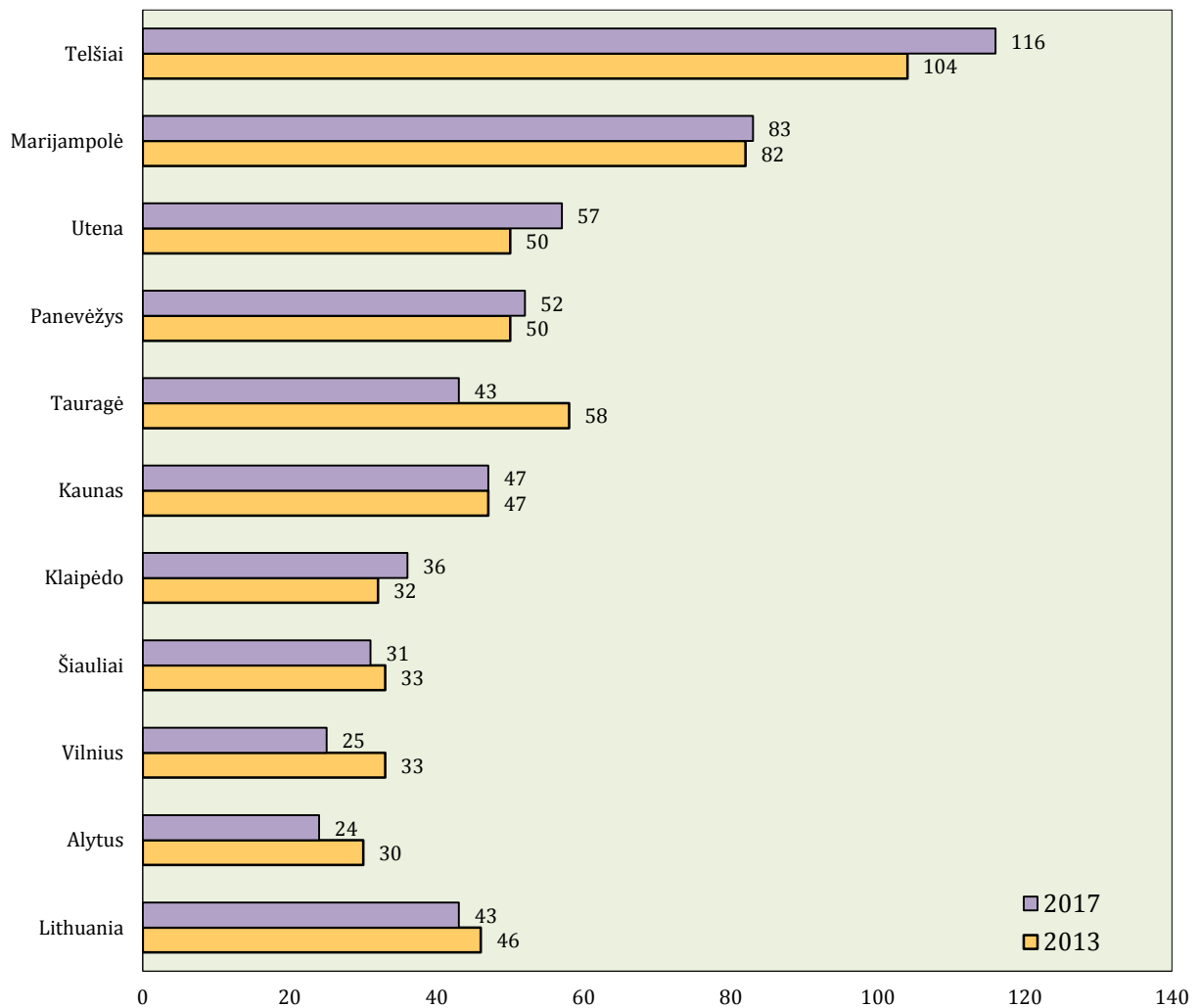


**Fig. 1.18. Structure of enterprises of manufacture of food and beverages by number of employees in Lithuania in 2017 (at the end of the year)**

Source: Statistics Lithuania

In Lithuania 52.1% of all operating enterprises involved in the manufacture of food products and beverages by number of their employees are attributed to very small (less than 10 employees), 30.2% to small enterprises (10–49 employees) and 13.6% to the medium-sized enterprises (50–249 employees) (Fig. 1.18). Enterprises with more than 250 employees in 2017 accounted for 4.0%, though they employed almost 47.1% of all employees engaged in the sector for the manufacture of food products and beverages.

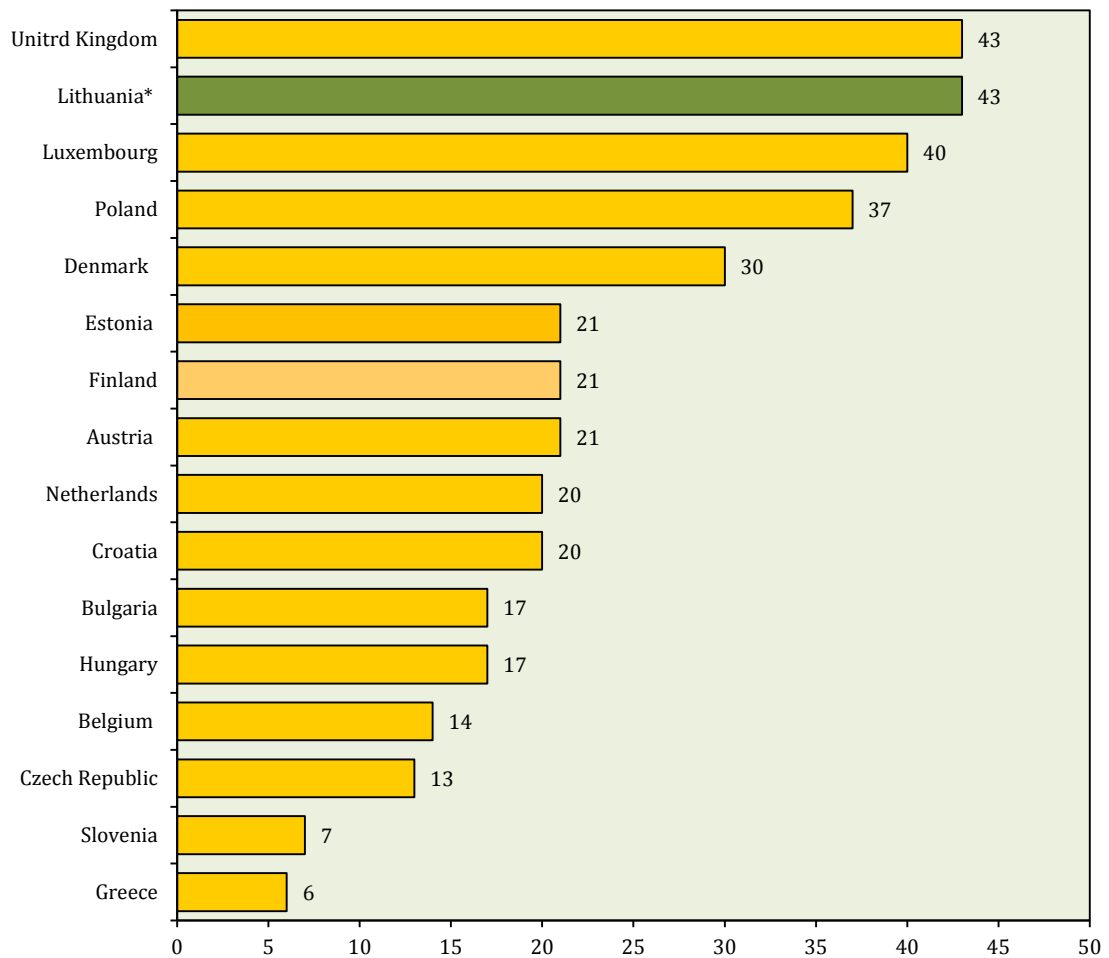
By the average number of employees per enterprise, Telšiai, Marijampolė and Utena counties in 2017, like in 2013, were in the lead (Fig. 1.19). Over the period under analysis the average number of employees per enterprise involved in the manufacture of food and beverages has changed most significantly in the Utena County (the average number of employees increased by 14.0 %) and in the Klaipėda County (decreased by 12.5%).



**Fig. 1.19. Average number of employees per enterprise of manufacture of food and beverages by county in Lithuania in 2013 and 2017 (at the end of the year)**

Source: Statistics Lithuania

The average number of employees per enterprise in Lithuania, employed in the manufacture of food products, beverages and tobacco production, in 2017, like in 2016, stood at 43 employees. This indicator by several times exceeds that in many EU countries. The same number of employees per enterprise, on the average, was only in the United Kingdom (Fig. 1.20). The average number of employees in Estonia was by 2.1 times lower than in Lithuania, though this number is higher than in many old EU Member States.



\* 2017

**Fig. 1.20. Average number of employees per enterprise of manufacture of food and beverages in some EU countries in 2016**

Source: Eurostat.

Within the reference period of 2013-2017 the average income of enterprises in the sector of manufacture of food products and beverages increased by 1.7%. The most important factor, predetermining such tendencies, was the increased number of enterprises as well as constantly increasing consumption in domestic and foreign markets. Maintenance of domestic and foreign markets and search of new markets will assure the development of the 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

Emigration of the Lithuanian population and going shopping by quite a number of Lithuanians in neighbouring Poland did not curtail the domestic market volumes. Over the period of 2013–2017, the sales volumes of food products, alcoholic beverages and tobacco increased by 19% and the average consumption per capita augmented even by one fourth. Retailing during 2017 went up by 6%. If not the competitive market of Poland offering cheap products, our consumption could have increased still more considerably. Approximately EUR 400 million (that much was spent by Lithuanians in Poland in 2017) is a huge amount and its use in the mother country would ensure more than one additional job and additional wages for trade employees (Table 2.1).

**Table 2.1. Retail sales of food products, alcoholic beverages and tobacco products  
in 2013–2017**

Indicators	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Total sales, EUR mill.	3688,0	3833,3	3946,5	4137,9	4387,9	19,0
Per capita, EUR	1246,9	1307,1	1358,6	1432,5	1555,1	24,7

Source: Statistics Lithuania

During the period of 2013–2017, average monthly net earnings have increased by one third (Table 2.2), and the price index of food products (in December 2017, as compared to December 2013) was by 7.4% higher. In 2017, comparing to 2013, prices of food products, except butter and eggs, since their prices were considerably higher in 2017, were much more affordable for the population of the country.

According to the Eurostat data, food expenditure by the Lithuanian population in 2016 made 22.2% of the total household expenditures and together with expenditures for alcohol, lodging, utilities and transport amounted even to 59.3%. The EU average resident in 2016 spent only 12.2% for food, though together with analogous expenditures 53.5%.

The key national market consists of large supermarkets, occupying about  $\frac{3}{4}$  of the market and having more than 700 outlets. A total of 5.5 thousand outlets are selling food products in Lithuania, and their trading area has increased by 13% during the five-year period.

**Table 2.2. Purchasing power of net earnings of employees in the whole economy in 2013–2017**

Indicators	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Average monthly net earnings, EUR	501,1	526,5	553,0	609,4	665,3	32,8
Purchasing power of average net monthly earnings in IV Quarter*						
beef ham with bone, kg	97	103	110	120	121	24,7
pork ham with bone, kg	144	155	171	186	206	43,1
milk, 2.5% fat content, l	665	675	758	846	875	31,6
butter, 82% fat content, kg	69	73	83	96	66	-4,3
eggs, 10 pcs	430	450	457	500	416	-3,3
rye bread, kg	348	353	374	401	429	23,3
sugar, kg	487	609	700	725	853	75,2

\* LIAE calculation.

Source: Statistics Lithuania.

The local market-place turnover in food products in 2017 comprised just approx. 3.2% of the total food market in Lithuania. Half of these products consist of meat and meat products (Table 2.3), the turnover of which within 2013–2017 has increased by 9.3%. The volumes of vegetables and potatoes within the period in question went up by one-fourth, and of milk products by 8.6%. Only sales of eggs have decreased.

Small mobile farmers' market-places, e-trade in farmers' products and other direct trade forms are gaining a still larger scope, but so far cannot seriously compete with supermarkets occupying approx. 60–70% of the retailing market.

**Table 2.3. The turnover of food products in local markets in 2013–2017, EUR mill.**

Products	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Food products	128,9	131,6	139,4	139,2	140,9	9,3
of which:						
meat and meat products	64,5	63,8	69,2	68,9	67,1	4,0
vegetables and potatoes	32,5	35,9	38,9	39,9	40,5	24,6
fruit and berries	15,1	15,1	15,5	16,5	18,2	20,5
milk and milk products	3,5	3,2	3,6	3,5	3,8	8,6
eggs	2,9	3,2	2,6	2,3	2,6	-10,3
other food products	10,4	10,3	9,6	8,2	8,7	-16,3

Source: Statistics Lithuania.

Production of agricultural produce (Table 2.4) permits not only the needs of the domestic market (except pig meat, vegetables and fruit) to be satisfied but also a substantial part of cereals, bovine meat, poultry meat and processed products to be exported. In 2017 the yielded grain harvest exceeded the domestic needs by 2.5 times; the number of cattle bred by 3 times exceeded the demand on the market. Self-sufficiency in milk and milk products by 1.5 times exceeded the national needs. Self-



sufficiency in other sorts of agricultural and food products is not excessive, and that in vegetables and fruit, same as in pig meat, is insufficient.

**Table 2.4. Production and purchase of agricultural products in 2013–2017, thou. t**

Indicators	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
<b>Production</b>						
Grain production	4564	5324	6521	5757	5782	26,7
Sugar beet for industry	967	1014	620	934	957	-1,0
Livestock & poultry, slaughtered (l. w.)	327	340	363	347	352	7,6
Milk production	1723	1795	1739	1756	1628	-5,5
Egg production, mill. pcs	772	806	786	789	755	-2,2
<b>Purchase</b>						
Cereal	2954	3240	3428	4025	4118	39,4
Rapeseed	501	406	441	334	436	13,0
Livestock & poultry (l. w.)	262	269	277	284	297	13,4
Natural milk	1339	1436	1438	1415	1402	4,7
Eggs, mill. pcs	463	483	518	599	526	13,6

Source: Statistics Lithuania.

Due to tillage of larger agricultural areas, the yield of crops within 5 years has increased by one-fourth, whereas production of milk products declined by almost 6%. Amount of livestock production has changed insignificantly; amounts of eggs collected were almost the same.

From 2013 prices for a lot of products have increased slightly on the domestic market. In 2017 only prices for butter and eggs have changed rather considerably (Table 2.5). Their growth is related to the tendencies of global prices. Prices for sugar and potatoes went on dropping. In general, the retail price index for food products during 5 years has augmented slightly (by 7.4%).

**Table 2.5. Retail prices of food products in December 2013–2017, EUR/kg**

Products	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Beef ham with bone	5,29	5,12	4,99	5,11	5,51	4,2
Pork ham with bone	3,49	3,39	3,24	3,28	3,23	-7,4
Chicken, drawn	2,58	2,48	2,33	2,33	2,41	-6,6
Milk, 2.5 % fat content, EUR/l	0,77	0,78	0,71	0,74	0,76	-1,3
Butter, 82 % fat content	7,39	7,25	6,60	5,68	10,05	36,0
Curd, 5–9 % fat content	3,99	3,90	3,45	3,55	3,65	-8,5
Eggs, 10 pcs	1,19	1,19	1,30	1,25	1,60	34,5
Best quality wheat flour	0,68	0,68	0,69	0,65	0,64	-5,9
Rye bread	1,47	1,50	1,46	1,54	1,55	5,4
Best quality wheat flour bread	1,65	1,63	1,58	1,60	1,55	-6,1
Potatoes	0,35	0,26	0,30	0,26	0,27	-22,9
Granulated sugar	1,05	0,85	0,75	0,86	0,78	-25,7

Source: Statistics Lithuania.

Products by local processors are predominant on the domestic market. Sales in non-Lithuanian dairy products in 2017 accounted for 13%, eggs 12%, and meat 46% (bovine meat 20%, poultry meat 48%, and pig meat 58%).

The prices for Lithuanian agricultural and food products sold on the domestic market have been impacted not only by the international commodity exchange prices, but also by the purchasing power of the population. The consumer price level indices reflect best a price position in separate countries. According to Eurostat data, the highest consumer price level indices for food in EU countries in 2016 were in Denmark, and lowest in Poland (Table 2.6). A level of prices for Lithuanian food products (78% of the EU average) was one of the lowest, especially for meat. Prices in neighbouring Poland, however, may just compete with the prices by Romanian tradesmen. A level of prices for dairy products is considerably higher almost in all EU countries, except Poland.

**Table 2.6. Price level indices for food and non-alcoholic beverages in EU countries in 2017**

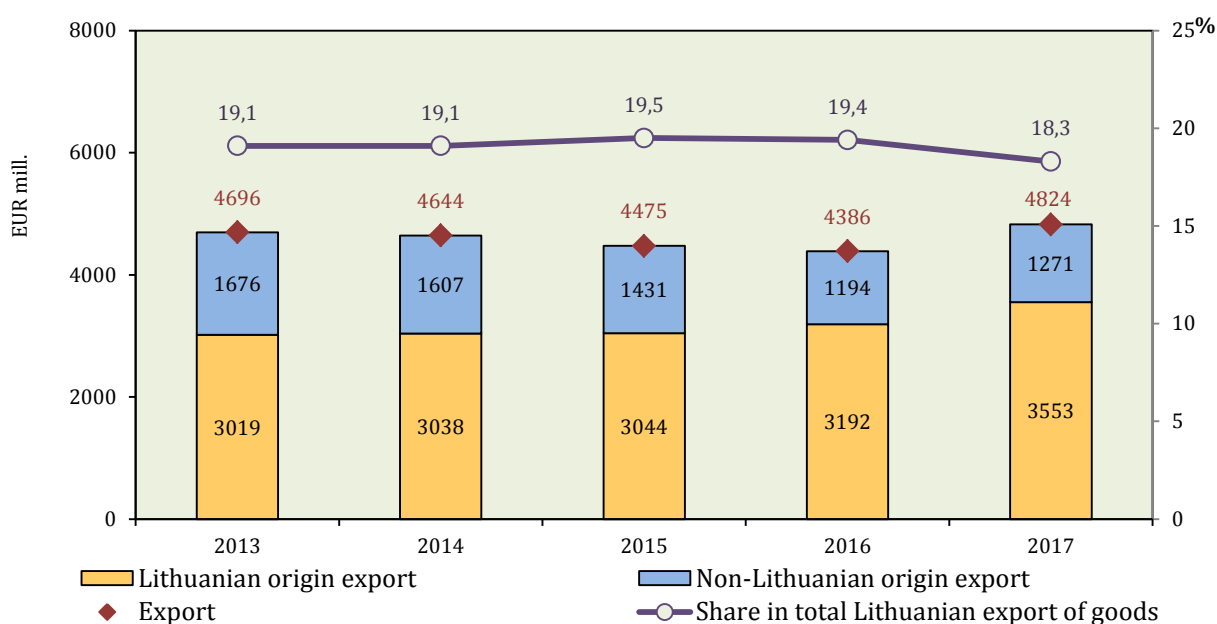
Country	Food and non-alcoholic beverages	Food	Bread and cereals
Romania	62	62	53
Poland	65	64	63
Bulgaria	73	72	60
Lithuania	<b>82</b>	<b>80</b>	<b>80</b>
Hungary	82	81	74
Czech Republic	86	85	80
Slovakia	91	89	89
United Kingdom	93	92	82
Estonia	94	92	93
Latvia	95	93	87
Spain	95	96	106
Portugal	96	95	96
Croatia	97	96	98
Slovenia	100	101	104
<b>EU</b>	<b>100</b>	<b>100</b>	<b>100</b>
Netherlands	103	102	92
Greece	104	103	116
Cyprus	107	108	116
Germany	108	108	104
Malta	110	108	107
Belgium	112	112	113
France	112	114	115
Italy	112	114	121
Ireland	117	116	109
Finland	118	117	126
Luxembourg	123	124	119
Austria	125	127	143
Sweden	126	127	130
Denmark	150	148	168

Source: <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do> (2018-06-28).

The domestic market for food products in our country, being distinguished for low meat and fish prices, does not seem to be very attractive to local consumers as the purchasing power of the population in terms of the average wages is still lower.

## 2. Foreign trade in agricultural and food products

**Export.** Foreign trade, especially exports, expansion has a significant impact on the development of Lithuania's economy. A possibility to export provides conditions for increasing the production and trade volume, the country's competitiveness, development of new technologies and innovations, maintenance and creation of new jobs. It was the augmentation of foreign trade volumes that was the factor of utmost importance determining the faster recovery of Lithuania's economy after the 2008–2009 global financial economic crises. Trading in agricultural and food products makes a substantial part of Lithuania's foreign trade structure. The share of exports in agricultural and food products increased from 19.1% in 2013 to 19.5% in 2015 though started diminishing in 2016 and in 2017 reached 18.3% of Lithuania's total commodity exports (Fig. 2.1).



**Fig. 2.1. Exports of agricultural and food products by origin of product and the share in total Lithuanian export of goods 2013–2017**

Source: Statistics Lithuania

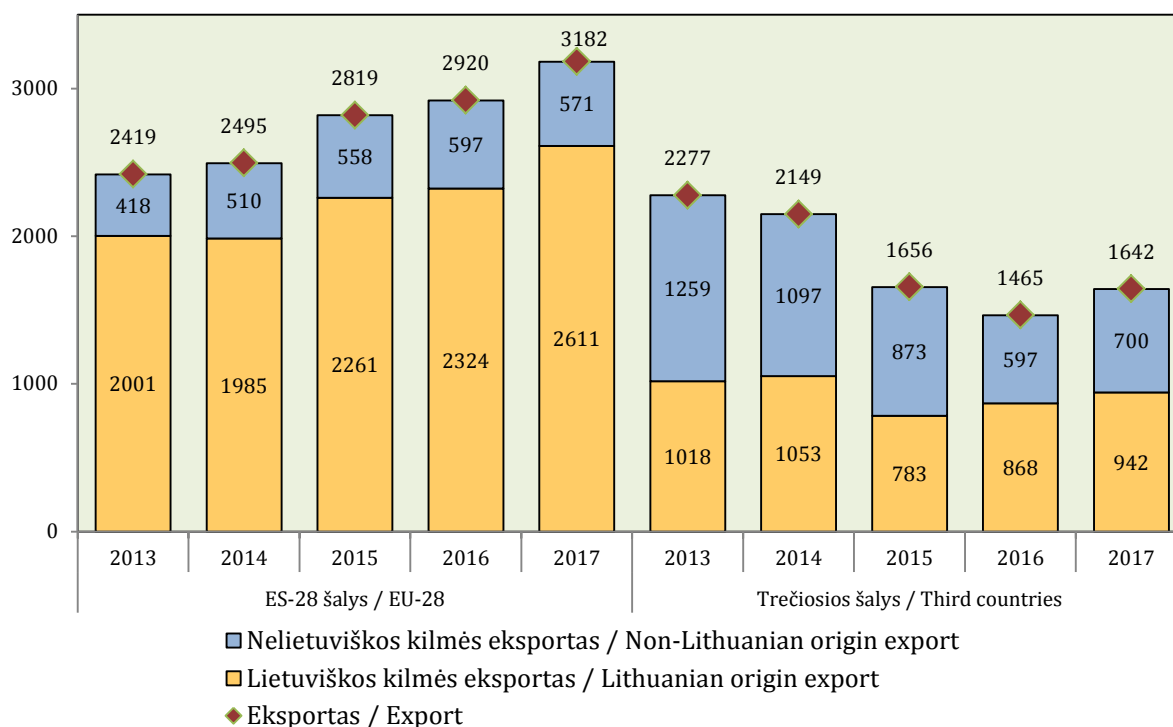
Due to the decline in global prices of products and geopolitical tension, indicators of Lithuanian foreign trade in agricultural and food products in the period of 2014–2016 demonstrated the tendencies towards diminishing. In 2016, as compared to 2013, the export value has dropped by 6.6%. Positive economic results, successful positioning in the existing markets and penetration into new alternative markets, however,

predetermined the replacement of the export value decline by its rapid growth. According to the preliminary data of the Lithuanian Department of Statistics, exports of agricultural and food products from Lithuania in 2017 amounted to EUR 4.8 billion. If compared to 2016, export increased by 10% and comparing to the beginning of the period under analysis by 2.7%.

Upon splitting the agricultural and food products by origin, the contrary variation tendencies were seen. Export of products of Lithuanian origin within the past five years has been just increasing and in 2017 reached its highest level (amounted to EUR 3.6 billion) and, comparing to 2013, increased by 18%. The specific weight of products of Lithuanian origin in the export structure by origin increased from 64% in 2013 to 74% in 2017.

Variation tendencies of exports of products of non-Lithuanian origin have reiterated the export tendencies of the total export of agricultural and food products, dropping from EUR 1.7 billion in 2013 to EUR 1.2 billion in 2016 and increasing to EUR 1.3 billion in 2017.

Lithuanian exporters are expanding the export geography of agricultural and food products: in 2013 products were shipped to 134 countries, and in 2017 to 143 countries. The EU market further remains the main part of exports for Lithuanian agricultural and food product exporters. Share of exports in agricultural and food products, taken by the EU countries, has increased from 52% in 2013 to 66%. Over the period under study, not only the specific weight of the EU market was noted for the tendencies of growth but also the value of export to this market. Compared to 2013, export to the EU countries increased by 31% – to EUR 3182 million (Fig. 2.2).



**Fig. 2.2. Exports of agricultural and food products by country group and by origin of product in 2013–2017, EUR mill.**

Source: Statistics Lithuania.

Share of products of Lithuanian origin in 2013 accounted for 83% of the total export to the EU countries, in 2017 – 82%, and the export value made accordingly EUR 2001 million and EUR 2611 million. The main partners of export to the EU market: Latvia (20% of the total export to the EU countries), Germany (16%), Poland (14%), the Netherlands (9.8%), and Italy (8.3%). Export to the afore-mentioned countries increased accordingly by 15%, 1.5 times, 1.4 times, 1.4 times and 1.6 times (Table 2.7).

**Table 2.7. Main export markets for agricultural and food products by country group and by origin of product in 2013 and 2017, EUR mill.**

Country	2013		2017*		Change, %	
	total	Lithuanian origin	total	Lithuanian origin	total	Lithuanian origin
<b>EU-28</b>						
Latvia	509	321	584	369	14,7	14,8
Poland	319	291	465	431	45,6	48,1
Germany	291	242	420	342	44,3	41,5
Estonia	200	191	288	276	44,1	44,7
Italy	150	143	243	231	62,3	61,4
other EU countries	950	813	1183	962	24,5	18,3
<b>Third countries</b>						
Russia	1374	310	487	72	-64,6	-76,8
Belarus	180	41	236	17	31,3	-59,6
Saudi Arabia	40	40	139	138	3,5**	3,5**
Japan	128	128	110	110	-14,1	-14,1
India	11	11	84	84	7,6**	7,6**
other third countries	544	489	587	522	7,9	6,7

\* Preliminary data.

\*\* Times.

Source: Statistics Lithuania.

Export value to third countries, comparing to 2013, decreased by 28%, i.e. from EUR 2277 million to EUR 1642 million. Export analysis by origin showed that within the reference period export in products of Lithuanian origin decreased by 7.5%, from EUR 1018 million to EUR 942 million, in products of non-Lithuanian origin by 1.8 times, i.e. from EUR 1259 million to EUR 700 million. These changes predetermined that share of products of Lithuanian origin from the total exports to third countries increased from 45% at the beginning of the period under study to 57% in 2017.

The leading position in the structure of exports to third countries by country group has been retained by Russia. However, due to an embargo on import of certain food products imposed by Russia in 2014, its share against the total exports to third countries has decreased by half within the period of 2013–2017, from 60% to 30%. Simultaneously, other countries from the five countries at the top of the first export markets strengthened their positions: share of Belarus has increased from 7.9% to 14% of the total export to third countries, Turkey from 1.8% to 8.4%, Saudi Arabia from 5.6% to 6.7%, and Japan from 0.5% to 5.1%.

Analysis of export of agricultural and food products according to two-symbol CN codes showed that in 2017, as compared to 2013, the most substantial increase in

exports was observed of fish and crustaceans (increment EUR 196 million), tobacco and processed tobacco substitutes (EUR 181 million), cereals (EUR 57 million), live plants and cut flowers (EUR 56 million), products from cereals, flour, starch or milk (EUR 53 million), animal or vegetable fats and oils (EUR 41 million), milling products, malt, starch (EUR 33 million), products from vegetables, fruit or other parts of plants (EUR 26 million), and products from meat, fish (EUR 23 million) (Table 2.8).

**Table 2.8. Exports of agricultural and food products in 2013 and 2017, EUR mill.**

CN code and products*	2013		2017**		Change, %	
	total	Lithuanian origin	total	Lithuanian origin	total	Lithuanian origin
10 Cereals	563,1	553,5	619,9	581,0	10,1	5,0
04 Dairy produce; birds' eggs; natural honey	601,6	569,8	550,6	527,0	-8,5	-7,5
24 Tobacco & manufactured tobacco substitutes	319,5	319,1	500,3	498,2	56,6	56,1
03 Fish & crustaceans	251,1	197,7	447,5	397,1	78,2	2,0***
22 Beverages, spirits & vinegar	347,2	111,4	333,9	102,8	-3,8	-7,7
23 Residues & waste of the food industries; prepared animal fodder	235,5	192,1	234,7	170,2	-0,3	-11,4
08 Edible fruit & nuts	455,9	22,9	219,9	18,7	-2,1***	-18,3
02 Meat & edible meat offal	224,9	181,2	215,4	188,1	-4,2	3,8
07 Edible vegetables	445,0	54,5	196,5	123,5	-2,3***	2,3***
16 Preparation of meat, of fish	164,1	139,4	187,1	170,5	14,0	22,3
19 Preparations of cereals, flour, starch or milk	128,2	81,5	180,9	118,5	41,1	45,5
21 Miscellaneous edible preparations	166,3	67,2	177,6	84,9	6,8	26,4
11 Products of the milling industry; malt; starches	105,8	101,6	139,0	133,7	31,4	31,6
06 Live trees & other plants; cut flowers	72,3	5,7	128,8	6,2	78,1	8,3
12 Oil seeds; straw & fodder	167,7	150,9	121,1	91,9	-27,8	-39,1
18 Cocoa & cocoa preparations	98,2	67,8	113,9	81,3	16,0	20,0
17 Sugar & sugar confectionery	99,1	77,4	112,0	85,9	13,1	11,0
15 Animal or vegetable fats & oils	56,4	19,9	97,7	40,6	73,1	2,0***
01 Live animals	71,7	68,4	88,3	84,3	23,2	23,3
20 Preparations of vegetables, fruit, nuts or milk	51,3	25,9	77,4	33,7	50,8	30,4
09 Coffee, tea and spices	57,2	2,7	61,5	4,0	7,5	47,9
05 Products of animal origin, not elsewhere specified	12,0	8,9	15,6	10,6	30,4	19,3
13 Lac; vegetable extracts	1,7	0,05	4,7	0,1	2,7***	2,5***
14 Vegetable plaiting materials	0,03	0,02	0,3	0,2	8,5***	7,0***
Total	4695,8	3019,5	4824,5	3553,2	2,7	17,7

\* Sorted by the 2017 export value in descending order.

\*\* Preliminary data.

\*\*\* Times.

Source: Statistics Lithuania.

The decline was observed in exports of vegetables (EUR 249 million), fruit and nuts (EUR 236 million), milk and milk products, eggs, honey (EUR 51 million), oils seeds, straw and fodder (EUR 47 million), non-alcoholic and alcoholic beverages and vinegar (EUR 13 million), meat and edible meat offal (EUR 9.5 million), and food industry residues and waste and prepared animal fodder (EUR 801 thousand).

As compared to 2013, exports of the major part of products of Lithuanian origin have increased. Most substantial increase of export was noted of fish and crustaceans – increment amounted to EUR 199 million. An increase in exports of tobacco and processed tobacco substitutes was EUR 179 million, vegetables EUR 69 million, products from cereals, flour, starch or milk EUR 37 million, milling products, malt, starch EUR 32 million, products from meat and fish EUR 31 million, and cereals EUR 28 million.

Export of cereals has been in the lead by value in the export structure from 2014. The augmented prices on the global market determined that in 2017 after the two-year stagnation the export value of cereals started increasing again. If compared to 2013, increment has made 10%, and compared to 2016 comprised 4.4%, reached EUR 620 million and accounted for 12.8% of the total value of exports in agricultural and food products. 94% of the shipped cereals have been grown in Lithuania. The substantial share of the total export of cereals of Lithuanian origin consisted of wheat. Its share in exports increased from 80% in 2013 to 88% in 2017. During the reference period, export of maize, buckwheat, oats and wheat of Lithuanian origin increased (by 4.7 times, 2.5 times, 2.4 times, and 14%, respectively). The main partners of export in cereals in 2013 were the Islamic Republic of Iran (38% of the total export of cereals), Saudi Arabia (23%), Latvia (7.2%), Sweden (5.4%), and Germany (4.5%). In 2017 export markets were Turkey (21% of the total export of cereals), Saudi Arabia (17%), Latvia (13%), Spain (9.3%), and the Netherlands (7.1%).

Milk and milk products (CN 0401–0406) were second ranked by export value, exports thereof comprising 10.9% of the total export of agricultural and food products). As a result of the reduced global prices for milk and milk products and an import embargo on these products imposed by Russia, the value of exports of the products under study has dropped from EUR 583 million in 2013 to EUR 391 million in 2015. The process of export reorientation and the growing export prices predetermined the increase in export volumes of milk and milk products in the period of 2016–2017 (to EUR 407 million and EUR 527 million, respectively). During the reference period the products of Lithuanian origin accounted for 97% of the total exports of milk and milk products.

42% (in 2013 – 46%) of the value of exports of milk and milk products of Lithuanian origin consisted of cheeses and cottage cheese. Exports of these products amounted to EUR 216 million, by 16% less than in 2013. The export value of not concentrated milk and sweet cream, as compared to 2013, increased by 29% and amounted to EUR 184 million (accounted for 36% of export of milk and milk products, in 2013 – 26%). 8% (in 2013, 7.3%) of the export value of products under study belonged to whey, exports thereof amounting to EUR 41 million or by 0.9% more than in 2013. Export of concentrated milk and sweet cream amounted to EUR 39 million, in 2013 EUR 76 million. Their share in the export structure of milk and milk products decreased from 14% at the beginning of the reference period to 7.6% in 2017. Butter and other milk fats comprised 4.5% (in 2013 – 4.0%) of the exports of milk and milk products, their exports amounting to EUR 23 million, or by 3.3% more than in 2013.

In 2013, 64% of export of milk and milk products of Lithuanian origin was shipped to the EU countries and 26% to Russia, and with Russia's market closed, the export structure got changed. The share of the said products exported to the EU countries in 2017 increased to 81%, and the key markets in third countries became the USA (2.8%), South Korea and Armenia (2.5% each), and Kazakhstan (2.4%).

Export of tobacco products amounted to EUR 500 million and compared to 2013 has increased by 1.6 times, their share in the total export making 10.4% (in 2013 – 6.8%). Almost all these exported products were manufactured in Lithuania. Cigarettes accounted for 96% (in 2013 – 86%) of export, 2.1% (1.7%) cigars and cigarillos, the remaining part consisted of tobacco. The key export markets were the EU countries (66% of tobacco product exports). The main export partners: the Netherlands (22%), Japan (16%), and Sweden (13%).

Ranked fourth in terms of export value (9.3% of the total value of exported agricultural and food products) were fish and crustaceans, their export amounting to EUR 448 million, or by 1.8 times more than in 2013. The share of products of Lithuanian origins has increased from 79% (in 2013) to 89% of the total export of fish and crustaceans. The largest portion of exports included dried, salted, smoked or otherwise processed fish, for EUR 287 million, by 2.1 times more than in 2013. Export of fish fillets and other fish meat has also increased substantially – by 1.8 times (to EUR 127 million). The main export partners: Germany (40%), Belgium (16%), Italy (12%), France (4.6%), and Latvia (4.2%).

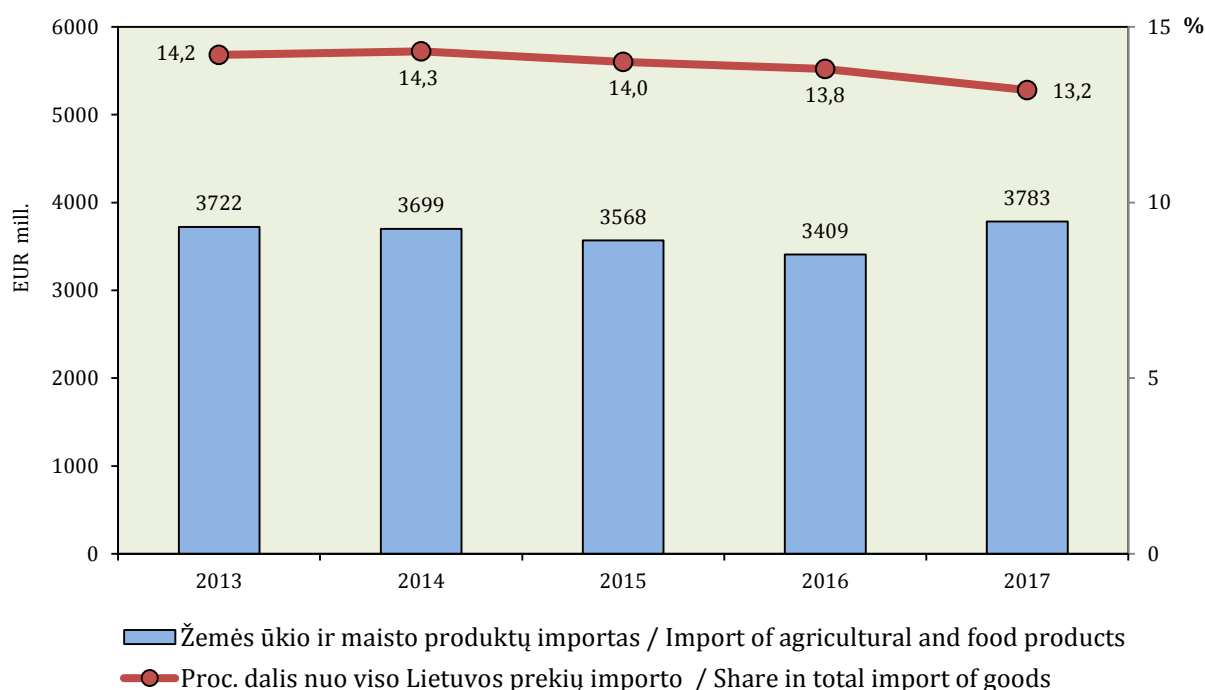
In 2017, 6.9% of the total value of export in agricultural and food products belonged to beverages, spirits and vinegar. Their export, as compared to 2013, diminished by 3.8% – for EUR 334 million. The value of the exported alcoholic beverages reached EUR 294 million, or by EUR 2.3 million less than in 2013. The key export partners, like five years ago, were Russia (73%) and Latvia (10%). The export value of non-alcoholic beverages reached EUR 36 million, or by 22% higher than in 2013. Their largest portion was shipped to Estonia and Latvia (37% each). Export of vinegar and vinegar substitutes amounted to EUR 1.2 million or by 1.6 times more than in 2013. The main export partners: Belarus (37%), Russia (28%), and Latvia (22%). Beverages of Lithuanian origin accounted just for 31% of the export value.

Export of residues and waste from the food industries and prepared animal fodder (under CN Chapter 23) amounted to EUR 235 million, i.e. by EUR 801 thousand less than in 2013. Products of Lithuanian origin constituted 72% of the total export of products in question. The key partners of export in products under CN Chapter 23 were Latvia (19%), the United Kingdom (13%), Germany (11%), Poland (10%), and Estonia (5.4%).

The exported fruit and nuts amounted to EUR 220 million, or by 2.1 times less than in 2013. Fruit of Lithuanian origin in 2017 just accounted for 8.5%, of which the largest portion of exports consisted of frozen bilberries, gathered in Lithuania (for EUR 9.9 million). Exports of fruit of non-Lithuanian origin largely consisted of peach (16% of non-Lithuanian origin exports), pears (15%), citrus fruit (12%), frozen bilberries (6.9%), strawberries (5.7%), apples (5.0%), bananas (4.3%), kiwi (3.9%), and grapes (3.5%). The key partners in exports of fruit and nuts in 2013: Russia (68% of the total exports in products under this Chapter), Belarus (13%), and Latvia (5.1%). Export markets in 2017: Belarus (50%), Latvia (12%), and Estonia (6.5%).



**Import.** In 2017, Lithuania imported commodities from 164 countries, agricultural and food products were imported from 122 countries for EUR 3782.8 million, by EUR 374 million more (11.0%) than in 2016 and by EUR 60.6 million more (1.6%) than in 2013. In 2017, agricultural and food products comprised 13.2% of the total import of Lithuania (Fig. 2.3). Of the 24 CN chapters, imports of 19 products have increased. The highest increase of import by value, 45%, was observed for milk and milk products, eggs, honey (import of milk products alone increased by 47%, from EUR 172 million to EUR 252 million), by 28% increased imports of products from cereals, flour and starch, by 22% of cereals, by 17% each of various beverages, meat and meat offal, live animals, by 16% of fruit, and by 15% of vegetables. Import of sugar and sugar confectionery products has dropped by 6.4%, cocoa and cocoa products by 6.1%, various food products by 5.3% (under CN Chapter 21), and fats and oils by 4.0%.



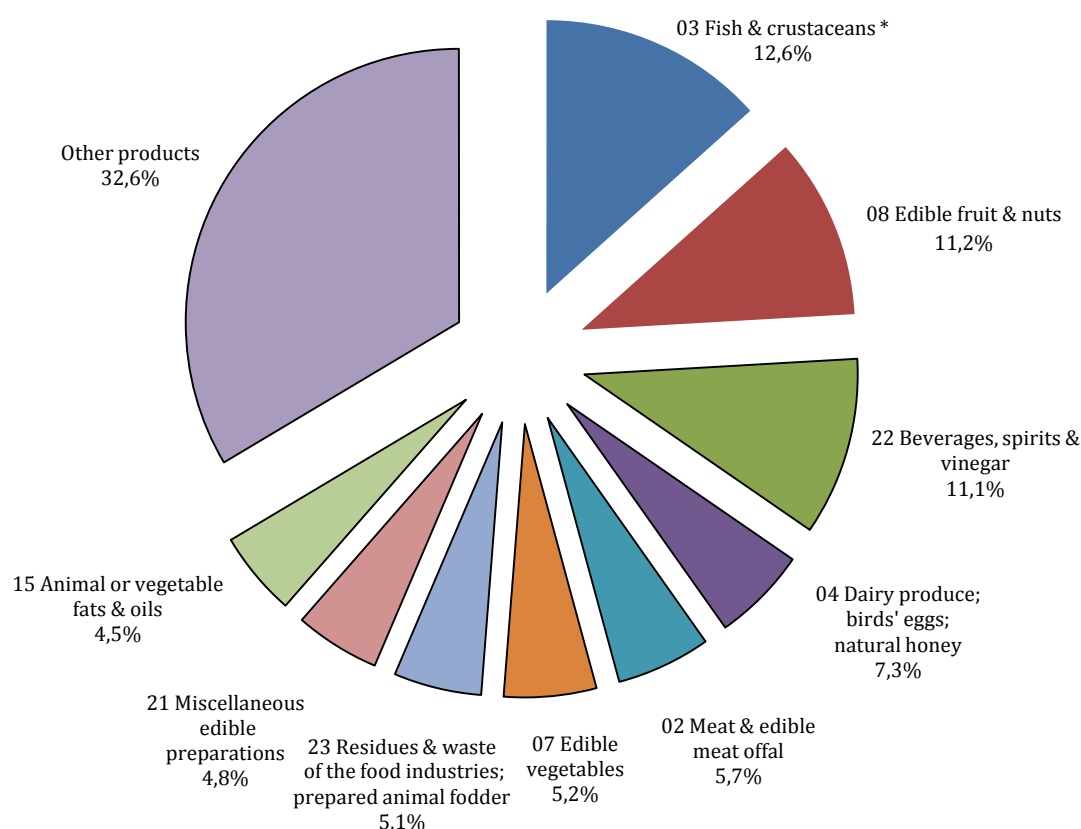
**Fig. 2.3. Import of agricultural and food products by country group in 2013–2017, EUR mill.**

Source: Statistics Lithuania.

In 2017 the major portion of imports consisted of fish and crustaceans (EUR 477 million), fruit and nuts (EUR 422 million), various beverages (EUR 420 million) (Fig. 2.4). Substantial import included milk and milk products (EUR 252 million), meat and meat offal (EUR 217 million), edible vegetables (EUR 196 million), residues and waste from the food industries and fodder (EUR 194 million), miscellaneous food products under CN Chapter 21 (extracts, food additives, and spreads) for EUR 181 million, fats and oils as well as tobacco and tobacco substitutes (EUR 169 million each). The value of the above-mentioned products constituted 72% of the total value of import of agricultural and food products.

Over the period of 2013–2017, the largest portion of imports stood for fruit and nuts. From 2016 import of fish and crustaceans was ranked first and retained such

position throughout 2017, import of fruit and nuts took the second position. The largest decrease was in the imports of edible vegetables: from EUR 452.2 million in 2013 to EUR 196.4 million in 2017. Together with fish and crustaceans, fruit and nuts, various beverages, milk and milk products, eggs, honey, meat and meat offal, edible vegetables, residues and waste from the food industries, prepared animal fodder and miscellaneous food products under CN Chapter 21 (extracts, food additives, and spreads), the import value accounted for 63% of the total value of imports of agricultural and food products.



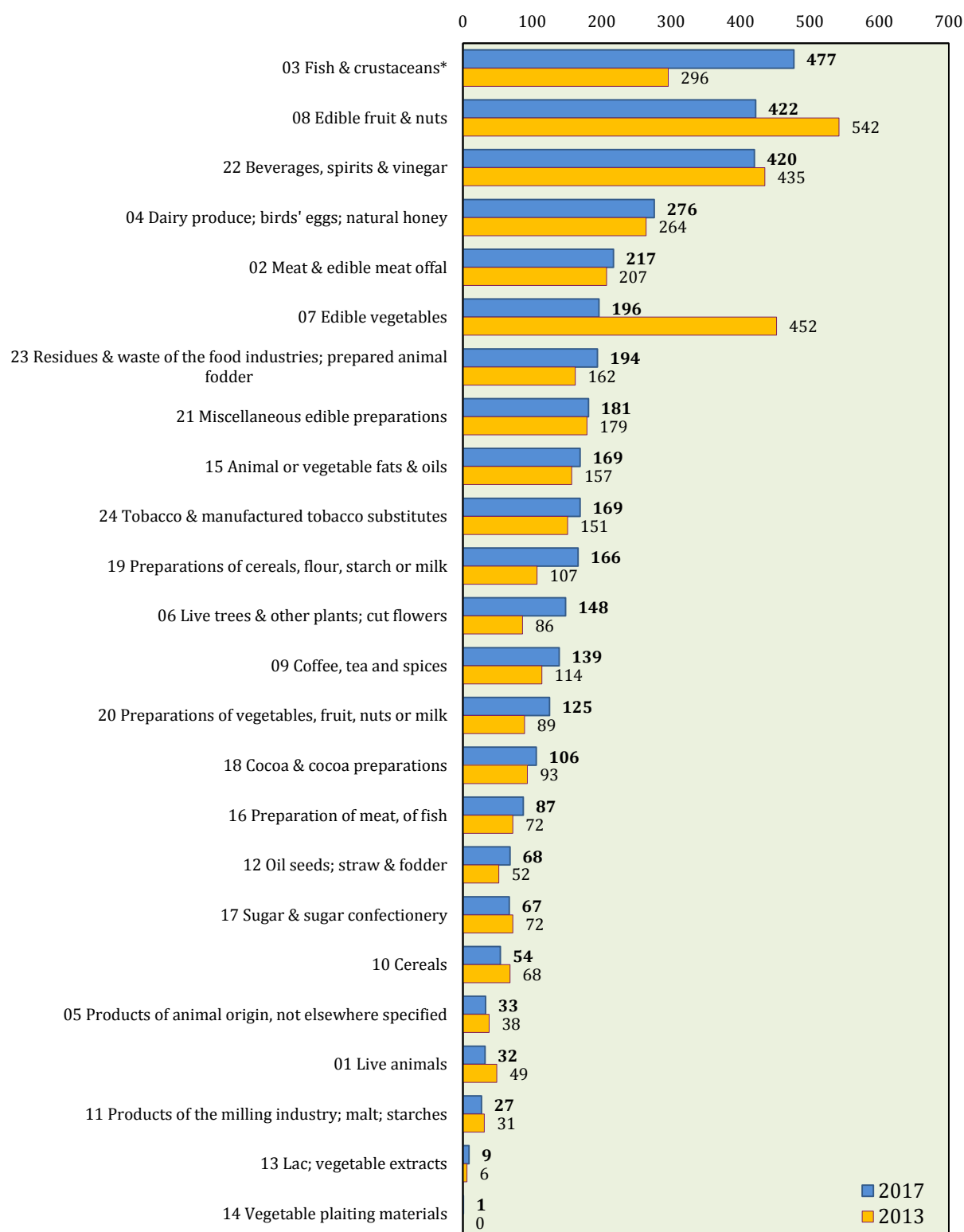
\* CN code and product group.

**Fig. 2.4. Structure of import of agricultural and food products in 2017**

Source: Statistics Lithuania.

In 2017, comparing to 2016, import of fish and crustaceans in terms of value increased by 4.7%, i.e. more by EUR 21.3 million, their import comprised 12.6% of the total value of imports of agricultural and food products. In 2017, as compared to 2013, import of fish and crustaceans in terms of value increased by 64.9%, i.e. by EUR 181.2 million. Comparison of imports of agricultural and food products in 2013 and 2017 (according to two CN symbols) is provided in Fig. 2.5. In 2017, 55 thou. t of frozen fish 43 thou. t of fresh and chilled fish, 30 thou. t of fish fillet and other fish meat have been imported. Price for frozen fish has dropped most substantially: from 1938.3 EUR/t to 1867.1 EUR/t (lower by EUR 71.3), price for fish fillet and other fish meat decreased from 2699.4 EUR/t to 2672.5 EUR/t (by EUR 27.0). The average import price for fresh and chilled fish got increased: from 5874.1 EUR/t to 6253.3 EUR/t, i.e. even by EUR 379.2. The largest portion of fish and crustaceans was imported from Sweden 48.6% (EUR 232 million), from Norway 12.0% (EUR 57.4 million), from Germany 8.2% (EUR 39.2 million),

from Russia 5.4% (EUR 25.8 million), from USA 4.5% (EUR 21.4 million), and from Latvia 4.2% (EUR 20.1 million). Import from these countries accounted for 83% of the total value of imported fish and crustaceans.



\* CN code and product group.

**Fig. 2.5. Import of agricultural and food products in 2013 and 2017, EUR mill.**

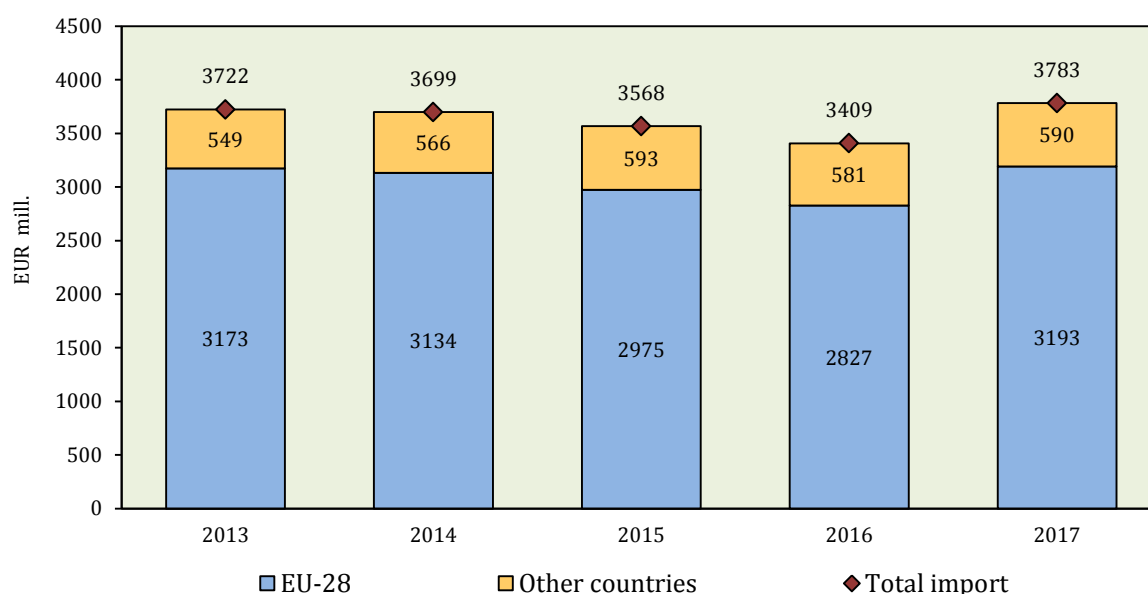
Source: Statistics Lithuania.

Import of edible fruit and nuts is ranked second in 2017, their import value has increased by 15.5%: from EUR 365 million in 2016 to EUR 422 million, though has not reached the level of 2013 (in 2013 imports of fruit and nuts amounted to EUR 542 million). In 2017 the import in question comprised 11.2% of the total agricultural and food product import. In 2017, 66% of the total import value of fruit and nuts consisted of apples and pears (16%), berries (fresh strawberries, kiwi, raspberries, cranberries and bilberries) (16%), apricots, cherries, peaches and plums (15.0%), citrus fruit (13%), and bananas (8%). If compared to 2016, import of berries (kiwi, strawberries, wild strawberries, raspberries, cranberries, and bilberries) by value increased mostly, by 1.73 times. The value of imported apples and peaches has increased by 14%. In 2017, however, import of berries still has not reached the value of 2013, i.e. difference made 36%. In 2017, the largest portion of fruit and nuts was brought from the Netherlands (EUR 101.3 million), Spain (EUR 63.8 million, 15%), Belgium (EUR 37.3 million, 8.8 %), Poland (EUR 33.6 million, 8.0%), Italy (EUR 19.8 million, 4.7%), Latvia (EUR 19.8 million, 4.7%), and Germany (EUR 18.2 million, 4.3%). Imports from the above-mention countries accounted for 69.6% of the value of imported fruit and nuts.

Various beverages and vinegar were ranked third by import volume. Import from 2016 has increased by 17% (EUR 62 million), even though it did not reach the value of the year 2013 (difference was EUR 15.4 million). In 2017, wine comprised 49% of the import value in this group, 22% strong spirits, 14% mineral and carbonated waters with sugar or sweetening matter and other flavours, and 6% beer. Wine was imported from 41 countries of the world; however, the shares of import from France (EUR 58 million), Italy (EUR 55 million) and Spain (EUR 50 million) accounted for 80% of the total value of imported wine. Strong spirits were imported from 42 countries, 74% from France, Spain, the UK, Latvia, Germany, and Russia, 76% of mineral and carbonated waters with various flavours were imported from Poland (50%), Latvia, Austria, Germany, and Ireland, 81% of beer from Poland, Italy, Germany, Latvia, and Czech Republic.

In 2017, imports of milk and milk products, poultry eggs, and natural honey, as compared to 2016, increased even by 45%, i.e. by EUR 86 million. Imports of milk products alone have increased by 47% (from EUR 172 to 252 million). In 2017, as compared to 2013, imports of milk and milk products, poultry eggs, and natural honey increased by 4.4% (EUR 11.7 million). As in each year, in 2017 the largest portion of import consisted of raw milk, its share constituting more than 54% of the total value of imported milk products. Import of raw milk amounted to 406 thou. t for EUR 137 million (in 2016 – 350 thou. t for EUR 84 million, in 2013 – 402 thou. t for EUR 142 million), its average import price increased by 40% – from 241 to 337 EUR/t. Import of raw milk, the highest imported amount of which was reached in 2014, has not been attained so far in 2017. In 2017, 65.8% (267 thou. t) of raw milk was imported from Latvia and 35.2% (138 thou. t) from Estonia. Quite a big amount of cheese and cottage cheese was imported – 14 thou. t for EUR 49 million (in 2016 – 12 thou. t for EUR 37 million, in 2013 – 13.8 thou. t for EUR 48.8 million), fermented or acidified milk products (yoghurt, kefir, curdled milk, etc.) – 14 thou. t for EUR 18 million, butter – 2.1 thou. t for EUR 11 million, poultry eggs – for EUR 15 million, concentrated milk and sweet cream – for EUR 12 million, whey of various types – for EUR 4.5 million. 47% by value of cheeses and cottage cheese was imported from Poland, 16% from Latvia, 12% from Estonia, and 8% from Germany. 54% by value of acidified milk products was imported from Poland, 17% from Germany, 15% from Latvia, and 12% from Estonia. 70% butter by value was imported from Poland, 7.7% from Belgium, and 5.8% from Latvia.

In 2013–2017 the share of the total imports of agricultural and food products that belonged to the EU countries fluctuated from 83% to 85%, in 2016 it was lowest making 82.9%, in 2013 it was highest – 85.3%, in 2017 – 84.4% (amounted to EUR 3193 million) (Fig. 2.6). The share of imports from third countries that previously accounted for 14.5–17%, in 2017 reached 15.6% (EUR 590 million), in 2016 it stood at 17.1%, in 2013 – 14.7%. In 2013–2017 import from the Eurasian Economic Union (EEU) countries (Russia, Belarus, Kazakhstan, Armenia, and Kirghizia), which previously reached 4.3–5.2% of the total import of agricultural and food products and 28–33% of imports from third countries, in 2017 comprised 4.3% of the total imports and 28% of imports from third countries. Import volumes from the Mercosur (Argentina, Brazil, Uruguay, Paraguay, and Venezuela) country group reached 9.5% of the import value from third countries and 1.48% of the total import value of agricultural and food products.



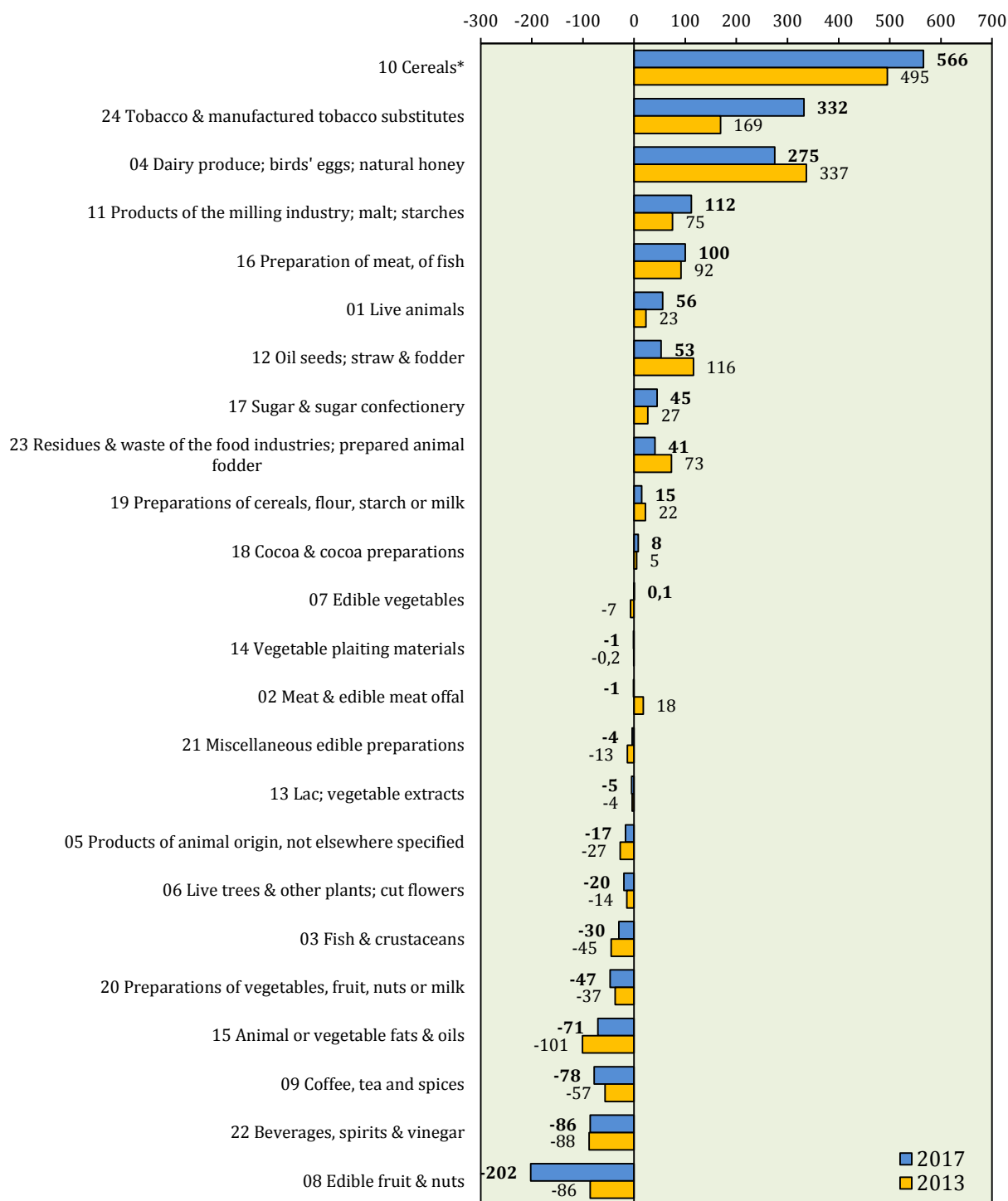
**Fig. 2.6. Dynamics of import of agricultural and food products by country group in 2013–2017, EUR mill.**

Source: Statistics Lithuania.

In 2017, as compared to 2016, the value of import from the EU increased by 13% (more by EUR 365 million), from the Mercosur countries increased by 45% (more by EUR 17 million). Import from the EEU countries decreased by 7.0% (less by EUR 12 million). The biggest share of the import value from the EEU and third countries belonged to Russia (68% of the import value of the EEU and 19% of third countries), from the Mercosur countries: Argentina (73%) and Brazil (25%), from the EU countries: Poland (19%), the Netherlands (14%), and Latvia (12%). In 2017 the largest portion of imports from the EEU countries consisted of animal or vegetable fats and oils, their value amounting to EUR 47 million (29% of the value of import from the EEU). Of which import of rapeseed and colza oil amounted to 55 thou. t for EUR 39 million, other oil and fats for EUR 4.9 million, sunflower oil for EUR 3.3 thou. t for EUR 3.3 million. 21% of import from the EEU consisted of fish and crustaceans (EUR 35 million). In 2017 the major import from the EEU consisted of animal or vegetable fats and oils, their value amounting to EUR 47 million (29% of the value of import from the EEU). 50% of import

from the Mercosur countries consisted of food industry residues and waste and prepared animal fodder, their import amounting to EUR 28 million.

In 2017 export of agricultural and food products exceeded import (surplus) by EUR 1042 million. The foreign trade surplus of products under twelve CN chapters was determined (Fig. 2.7).



\* CN code and product group.

**Fig. 2.7. Balances of agricultural and food products in 2013 and 2017, EUR mill.**

Source: Statistics Lithuania.

The biggest surplus was in trading in cereals (EUR 566 million), tobacco and tobacco products (EUR 332 million), products under CN Chapter 04 – milk and milk products, eggs, honey (EUR 275 million), milling products, malt, starch (EUR 112 million), meat and fish products (EUR 100 million), live animals (EUR 56 million), and plant seeds and fodder (EUR 53 million). The biggest deficit was when trading in fruit and nuts, various beverages, coffee, tea and spices, fats and oils, vegetable and fruit processed and reprocessed products, fish and crustaceans.

The trade deficit with the EU countries in 2017 was EUR 10.5 million (import exceeded export). In 2016, it was the only time since 2013 that surplus in trade amounted to EUR 93 million (export exceeded import). Surplus in trade with the EEU countries in 2017, as compared to 2016, increased by 31% and comprised EUR 616 million. The trade deficit with the Mercosur countries made EUR 49.5 million (in 2016 – EUR 36.4 million).

The highest surplus was in trade with Russia (EUR 376 million, in 2016 – EUR 300 million), Belarus (EUR 193 million, in 2016 – EUR 146 million), Latvia (EUR 191 million), Germany (EUR 170 million), Turkey (EUR 120 million), Saudi Arabia (EUR 110 million), the United Kingdom (EUR 95 million), and Japan (EUR 84 million), the highest deficit – in trade with Poland (EUR 177 million), the Netherlands (EUR 168 million), Spain (EUR 133 million), Sweden (EUR 105 million), and France (EUR 67 million). The trade deficit with the USA in 2017 was EUR 2.9 million (in 2016, surplus of EUR 3.2 million), turnover made EUR 86 million (in 2016 – EUR 92 million), the trade deficit with China was EUR 14 million, turnover EUR 30 million (in 2016 – EUR 9.6 and 23 million, respectively).

Turnover of foreign trade in agricultural and food products in 2013 and 2014 amounted to EUR 8.4 billion, in 2015 to EUR 8.1 billion, and in 2016 to EUR 7.8 billion, in 2017 it was highest making EUR 8.6 billion. The total foreign trade turnover of Lithuania within that period went on reducing, therefore, the portion of turnover of agricultural and food products changed insignificantly (in 2016 accounted for 16.5%). In 2017, the portion of turnover of agricultural and food products was lowest making 15.6 %.

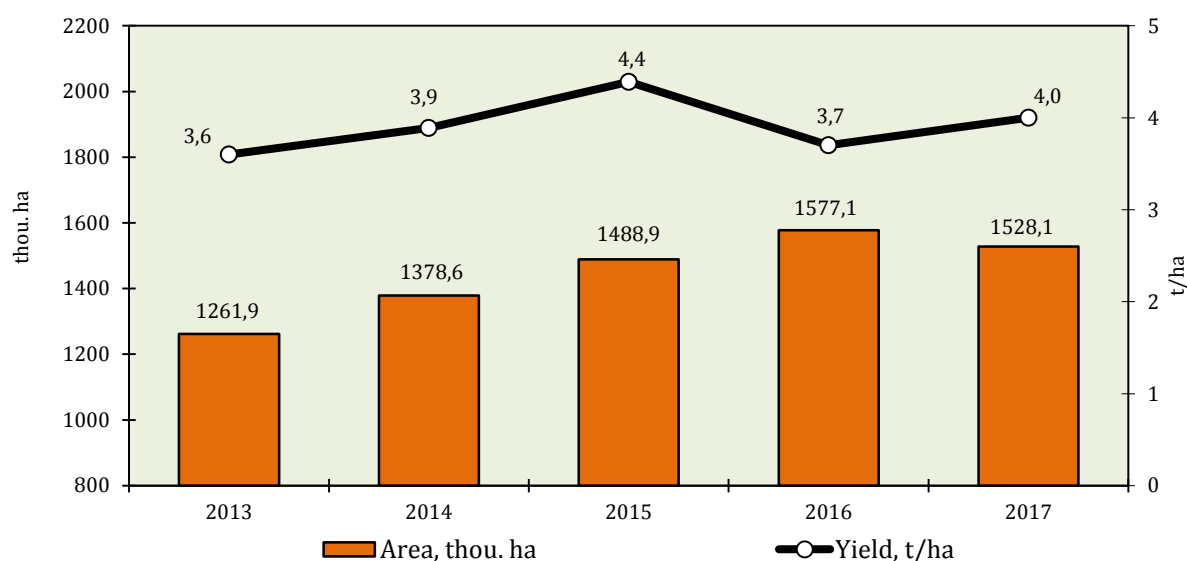
The biggest turnover of trade with Poland amounted to EUR 1017 million (12% of the total turnover of trade in agricultural and food products in 2017), Latvia EUR 997 million (11%), Germany EUR 759 million (8.8%), the Netherlands EUR 743 million (8.6%), Russia EUR 597 million (6.9%), and Sweden EUR 410 million (4.8%). Turnover of trade with the said countries made 52% of the total turnover of trade in agricultural and food products. In 2017, as compared to 2016, the trade turnover with the Netherlands increased by 24%, with the Republic of Korea, due the increased export by 2.3 times, the turnover increased by 2.24 times, making EUR 46 million. The trade turnover with Saudi Arabia has decreased by 18%, with Japan by 20%, and with the USA by 7.1%.

### 3. Changes in production of agricultural and food products

#### 3.1. Cereals

Part of areas under grain crops over the period of 2012–2017 has increased by 20 percentage points and in 2017 covered approximately 75% of the total crop areas. During the period in question the areas under perennial grasses (up to 5 years) have decreased accordingly – even by 2.9 times. This tendency has a negative impact on biological diversity, the need for mineral fertilizers gets increased, soil is being exploited intensively, etc. The total production of crops cultivated in Lithuania constitutes more than one-third of the gross agricultural production. Of the EU countries, Lithuania in 2017 was ranked fifth by wheat export. In the structure of exports of grain and milling products, however, milling production in 2017 just made 18%. This reveals the unrealized potential of this sector for processing of products and creation of products with the higher value added.

**Cultivation.** The year 2017 has necessitated the display of knowledge, innovative thinking and self-discipline on the part of farmers. The weather that year was unfavourable for cultivation of grain crops. Dry and rather cool weather in May and June was stressful for plants. The rainy months of July and August have not only impeded harvesting but also soil preparation and winter grain sowing work. Such climatic conditions have a negative effect on harvest and simultaneously worsen the physical condition of soil due to the cultivation of too wet soils. The EC support of over EUR 9 million was granted to Lithuanian farmers who suffered from heavy rains in the 2017 summer. The area under grain crops in Lithuania in 2017, as compared to 2016, decreased by 3.1%, and, comparing to the past five-year average, increased by 8.5%. The yielding capacity of grain crops in 2017 was higher, if compared to both the past five-year average and the year 2016, by 2.6% and 9.2%, respectively (Fig. 2.8).

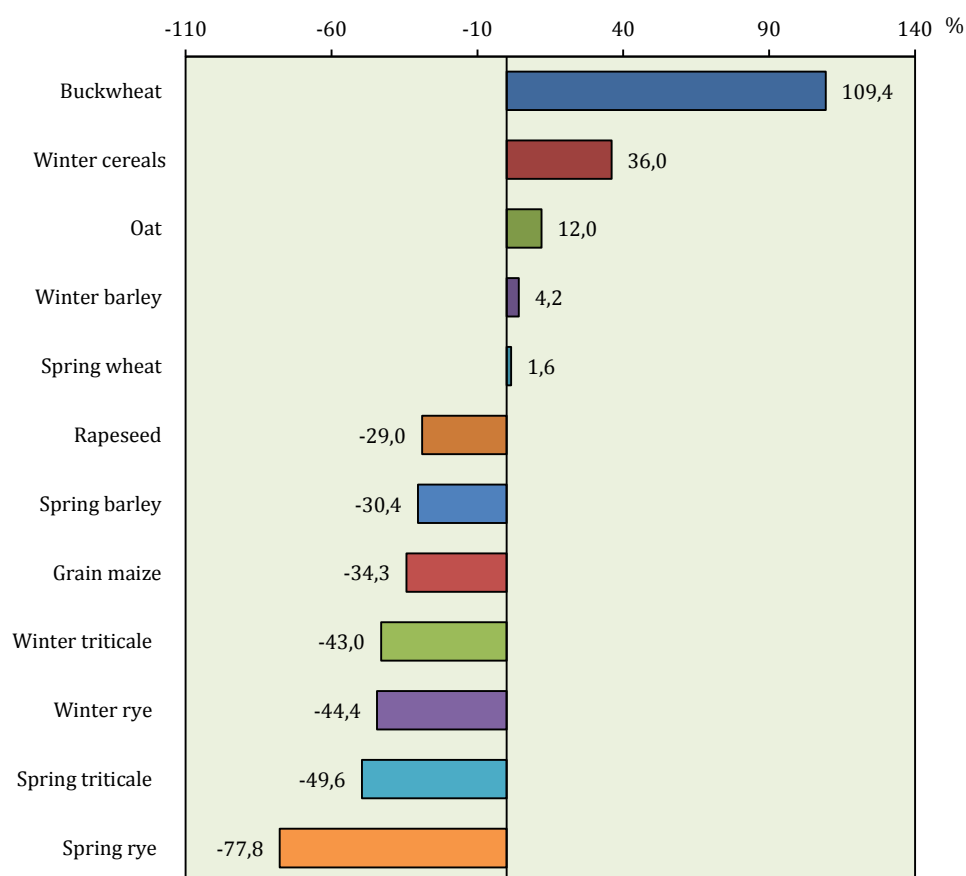


**Fig. 2.8. Crop area and yield of grain crops in 2013–2017**

Source: Statistics Lithuania.



In 2017, as compared to 2013, the area of leguminous crops for grain has increased most considerably – by 5.8 times. The area under leguminous crops has been increasing with each year since 2015. This is related to the implementation of requirements for farmers to receive the green payment, as well as with payment paid for growing of protein plants and complementary coupled support scheme payment for protein plants. From 1 January 2018 the ban on the application of plant protection products in areas of land lying fallow, nitrogen-fixing crops, areas of crops and areas under-sowing grass, intended for greening, came into force. This will make the cultivation of leguminous crops more complicated but still more beneficial in terms of environmental protection. The area under buckwheat has increased by more than two times. The most substantial reduction in area was observed for spring rye (77.8%) and triticale (49.6%), winter rye (44.4%) and triticale (43.0%) (Fig. 2.9). In the 2017 structure, cereals accounted for 82.9% of grain crops. The area under crops in 2017, compared to 2016, has decreased by 5.4%. Winter crop areas in the structure of areas under crops comprised 58%, and, compared to 2013, increased by 5 percentage points. In 2017, in the structure of areas under winter crops 85.9% was under wheat and, as compared to 2013, its share increased by 13.5 percentage points.



**Fig. 2.9. Changes in grain crop areas in 2017 compared to 2013, %**

Source: Statistics Lithuania.

According to Eurostat data, the EU-28 area under crops in 2017, on the average, had a tendency towards declining, i.e. compared to 2016, areas decreased by 2.2%. The largest reduction of areas was in Croatia (13.9%), Finland (12.9%), and Latvia (10.3%).

The EU-28 yield of crops in 2017 reached, on the average, 5.6 t/ha and was by 0.3 t/ha higher than in 2016. The highest yield of crops was achieved in Belgium (9.4 t/ha), the Netherlands (8.8 t/ha), and Ireland (8.7 t/ha), and lowest in Cyprus (2.0 t/ha). The yield of wheat in 2017 in the EU, on the average, reached 6.1 t/ha, i.e. by 0.5 t/ha was higher than in 2016. The highest wheat yield was fixed in Ireland (10.1 t/ha), and lowest in Portugal (2.1 t/ha).

The total yield of grain crops in Lithuania in 2017 was by 9.2% higher than in 2016 and by 11.0% higher than in 2013. In 2017, compared to 2013, the yield of spring crops was lower: triticale (12.8%), wheat (5.4%), and maize (22.4%) (Table 2.9).

**Table 2.9. Yield of grain crops in 2013–2017, t/ha**

Kind of grain crops	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Grain crops	3,63	3,89	4,39	3,69	7,03	11,0
cereals	3,69	3,98	4,56	3,86	4,23	14,6
winter cereals	4,09	4,35	5,33	4,49	4,95	21,0
wheat	4,56	4,81	5,71	4,75	5,23	14,7
triticale	3,18	3,36	4,08	3,42	3,38	6,3
rye	1,96	2,26	2,79	2,38	2,44	24,5
barley	3,60	4,11	4,40	4,12	4,11	14,2
spring cereals	3,23	3,75	3,69	3,04	3,15	-2,5
wheat	3,71	4,31	4,21	3,42	3,51	-5,4
barley	3,27	3,80	4,00	3,13	3,65	11,6
triticale	2,88	3,12	3,08	2,56	2,51	-12,8
oat	2,24	2,42	2,55	2,19	2,58	15,2
buckwheat	0,93	0,95	1,00	1,15	1,10	18,3
grain maize	7,40	6,06	4,81	6,94	5,74	-22,4
other cereals	1,60	1,37	0,97	0,77	0,77	-51,9
dried pulses grain	1,91	2,20	2,29	2,04	2,09	9,4
Rapeseed	2,13	2,33	3,13	2,60	3,00	40,8

Source: Statistics Lithuania.

The lowest yield of crops by counties was fixed in Utena County (2.5 t/ha), and highest in Šiauliai County (5.4 t/ha). The lowest yield of winter and spring crops was also fixed in Utena County, 3.0 t/ha and 2.0 t/ha, respectively, and the highest yield in Šiauliai County, 5.8 t/ha and 4.4 t/ha, respectively. According to the calculated variation coefficient, the lowest differences between counties in the yield of oats (12%) and highest that of maize (31%) were specified. In 2017, comparing to 2016, the highest increase in the yield of winter crops was defined in Marijampolė and Tauragė counties, by 35.5% and 16.3%, respectively. The highest increase in the yield of spring crops during the same period was established in Šiauliai and Panevėžys counties, by 18.0% and 16.3%, respectively.

The harvest of grain in 2017 amounted to 5781.5 thou. t (Table 2.10). The harvested yield was by 0.4% higher than in 2016 and was ranked second within the period of 2007–2017. The harvest increase, as compared to 2016, was due to the augmented average yield of grain, even though the sown area got reduced. The major portion of the harvest of grain crops (88%) consisted of cereals, of which 70.2% winter crops. Winter wheat accounted for 91.2% of the harvest of winter crops, and, as compared to 2013, this share increased by 10.5 percentage points. In 2017, comparing to 2013, the harvest of leguminous plants for grain has increased by 7.9 times. The harvest of rape within the reference period has declined by 1.3%, though, if compared to 2016, was higher by 36.1%. Cereals cultivated in farmers' and family farms in 2017 comprised 78% of the total harvest of crops, and rape – 72% of the total harvest of rape.

**Table 2.10. Harvest of grain crops in 2013–2017, thou. t**

Kind of grain crops	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Grain crops	4564,4	5324,1	6521,4	5757,1	5781,5	26,7
cereals	4474,8	5123,2	6066,7	5020,8	5074,2	13,4
winter cereals	2632,3	2120,2	3772,7	3370,6	3560,0	35,2
wheat	2124,5	1707,8	3271,7	2982,6	3245,3	52,8
triticale	387,2	291,9	379,1	292,1	222,5	-42,5
rye	95,0	83,5	106,6	76,4	62,5	-34,2
barley	25,6	37,0	15,3	19,5	29,7	16,0
spring cereals	1842,5	3003,0	2294,0	1750,2	1514,2	-17,8
wheat	746,8	1522,8	1108,6	861,9	672,1	-10,0
barley	660,1	981,5	796,2	525,7	490,0	-25,8
triticale	66,6	103,3	89,4	39,3	25,0	-62,5
oat	164,7	183,8	163,4	155,1	195,9	18,9
buckwheat	28,3	35,6	36,5	49,9	53,2	88,0
mixed cereals	46,0	58,0	42,1	30,9	20,3	-55,9
grain maize	127,2	115,0	56,4	86,2	57,0	-55,2
other cereals	1,3	1,2	0,2	0,1	0,1	-92,3
dried pulses grain	89,6	200,9	454,7	636,3	707,3	7,9*
Rapeseed	550,6	501,5	512,2	399,4	543,5	-1,3

\* Times.

Source: *Statistics Lithuania*.

**Purchase of grains in Lithuania.** In 2017, the amount of cereal grains purchased from cultivators in Lithuania was by 0.9% higher than in 2016, of which the amount of Class II food wheat was higher by 74.7%, rye by 20.2%, and oats by 2.6 times. Wheat accounted for 87% of the total purchased amount of grain and Class II food wheat made 44.8% of the total purchased amount of wheat. In 2017, comparing to 2013, procurement of Class II food and feed wheat, oats and buckwheat augmented. The most substantial decrease was in the purchased amounts of maize, Class I food wheat and triticale (Table 2.11).

**Table 2.11. Purchase of grains in 2013–2017, thou. t**

Kind of grain	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Grain, total	2954	3240	3428	4082	4118	39,4
wheat	2209	2323	2484	3578	3582	62,2
food wheat, class I	970	838	686	554	491	-49,3
food wheat, class II	794	865	1158	918	1604	2,0*
feed wheat	168	242	375	328	300	78,6
rye	46	29	39	32	38	-16,4
food rye, class I	21	16	22	14	18	-13,0
barley	357	573	439	285	266	-25,4
food barley	57	115	86	44	38	-34,2
malt barley	74	345	109	85	68	-8,0
feed barley	226	112	243	156	161	-28,8
oats	27	32	29	19	50	84,9
buckwheat	13	11	6	20	15	18,6
triticale	248	177	217	210	146	-41,0
maize	47	44	16	14	12	-75,0
Rapeseed	501	406	441	334	436	-12,9

\* Times.

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

The accumulated stocks worldwide and the forecast of a rich harvest in the coming years will have a negative impact on the increase of purchase prices for grains. According to the International Grains Council data, the yield of wheat in 2016–2017 reached 758.4 mill. t, and the global export amount was 175.1 mill. t. In these latter years Russia is gaining ground on the market of cereals. The amount of Russia's export in grains is ranked second by size in the world. Russia's main export markets of grains are Egypt and Turkey; Russia, however, is expanding its geography of markets, thus enhancing still stronger competition for other countries. It is forecast that in 2017–2018 Russia's wheat export will increase by 10.9 mill. t, as compared to the 2016–2017 harvest. It should be noted that grain cultivation in this country is based on the low intensity of the use of fertilizers – this revealing the yield growth potential in the future. According to the International Grains Council data, such factors like unfavourable weather conditions, unfitted logistics and export customs will have a negative effect on Russia's wheat export.

According to AIRBC data, in 2017 the average export price for Class I wheat in France amounted to 168.26 EUR/t, by 4.2% higher than in 2016. The price varied from 180.69 EUR/t in February to 180.40 EUR/t in March. In 2017, in Germany the average export price of Class B wheat was higher by 5.4% (175.6 EUR/t) than the last year. The highest price was fixed in March (183.35 EUR/t), and lowest in July (166.30 EUR/t). In the United Kingdom in 2017 the average export price of feed wheat was 170.36 EUR/t, by 10.2% higher than in 2016. The lowest price was fixed in July (153.83 EUR/t), and highest in January and April (180–182 EUR/t).

The purchase price for grain in Lithuania in 2017 was higher by 8.5%, as compared to the price in 2016, and by 7.7% lower than the past five-year average price and by 13.5% lower than the average purchase price in 2013. The highest increase of purchase price in 2017, as compared to the last year, was for maize, wheat, rye and triticale, whereas the purchase price for buckwheat reduced most of all (Table 2.12).

**Table 2.12. Average purchase price of grains in 2013–2017, EUR/t**

Kind of grain	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Grain, total	176	150	157	141	153	-13,1
wheat	179	154	160	133	152	-15,1
rye	136	117	114	110	124	-8,8
barley	178	140	144	128	138	-22,5
malt barley	213	172	167	158	165	-22,5
triticale	146	126	124	112	123	-15,8
oats	118	100	121	122	116	-1,7
buckwheat	267	263	415	389	269	0,7
maize	167	146	144	123	143	14,4
Rapeseed	349	293	341	365	358	2,6

Source: Statistics Lithuania.

**Processing.** The grain processing companies of the country in 2017, as compared to 2013, produced the bigger amount of wheat flour (53.0%), cereal groats (17.5%), and pie and bakery confectionery (1.7%). Comparing the production results of these latter years with the last-year result, a decline is seen in the production of rye flour (2%), fresh bread (9%) and other bread (15%) (Table 2.13).

**Table 2.13. Production of grain products in 2013–2017, thou. t**

Products	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Flour	365,5	394,8	482,5	510,1	542,9	48,5
wheat	342,3	370,8	457,6	490,3	523,6	53,0
rye	23,1	23,7	24,7	19,5	19,1	-17,3
Cereal groats	20,9	24,0	20,8	24,1	24,5	17,5
Fresh bread	121,1	126,5	123,8	127,2	115,6	-4,5
rye bread	54,2	51,2	49,5	49,1	49,5	-8,7
other bread	66,9	75,3	74,3	78,1	66,1	-1,2
Pastry and confectionery	23,2	24,7	24,2	22,7	23,6	1,7
Pasta	12,5	12,0	14,1	12,4	14,2	13,7
Prepared mixed animal feed	520,5	494,2	506,4	548,7	653,6	25,6

Source: Statistics Lithuania.

In 2017, compared to 2016, the average wholesale prices of grain products went on increasing: semolina (17.1%), wheat groats (7.3%), confectionery products (7.1%), rye flour (2.7%), other bread (2.5%), rye bread (2.3%), and fresh bread (2.3%). Lower prices were for buckwheat (9.0%) and wheat flour (2.8%). In 2017, comparing to 2013, the substantially higher prices were for buckwheat (27.8%) and confectionery products (22.0%), the declined prices were for wheat flour (15.7%) and rye flour (15.1%) (Table 2.14).

**Table 2.14. Average wholesale prices of grain products in 2013–2017, EUR/t**

Products	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Wheat flour	330	315	296	286	278	-15,7
Rye flour	273	246	226	226	232	-15,1
Wheat groats	354	313	349	317	340	-3,8
Semolina	442	417	381	376	440	0,4
Buckwheat groats	666	617	915	935	851	27,8
Fresh bread	961	894	863	858	878	-8,6
Rye bread	955	915	871	839	858	-10,2
Other bread	966	879	858	870	892	-7,7
Pastry and confectionery	2643	2653	2796	3012	3225	22,0

Source: Statistics Lithuania.

In 2017, comparing with 2013, prices on the retail market were lower for highest-grade wheat flour (8.3%), wheat loaf bread (3.1%), and pasta (2.8%), whereas prices of other products under analysis went up. If compared to 2016 prices, only rye bread price has increased (1.3%) (Table 2.15).

**Table 2.15. Average retail prices of grain products in 2013–2017, EUR/kg**

Products	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Wheat flour, best quality	0,72	0,70	0,69	0,68	0,66	-8,3
Rye bread	1,45	1,48	1,48	1,50	1,52	4,8
White bread made from wheat flour	1,61	1,62	1,60	1,60	1,56	-3,1
Buckwheat groats	1,70	1,53	1,76	2,00	1,97	15,9
Pasta*	0,71	0,69	0,70	0,71	0,69	-2,8

\*500 g.

Source: Statistics Lithuania.

**Balance.** In 2017, as compared to 2013, the harvest of grains was higher by 26.6%, and this was due to the yielding capacity higher by 11.0% and the areas larger by 21.1%. The stocks accumulated at the beginning of the year were by 29.6% larger than

in 2013. Export of grain crops in terms of quantity in 2017, comparing to 2013, increased by 50.6%, and import in 2017 got reduced by 0.9%. With an increase of areas under crops in 2017, as compared to 2013, the use of grains for seed increased and grain consumption in the grain industry went on increasing as well. Self-sufficiency with grains is high, and in 2017 it reached 290%. The consumer consumption fund accounted only for 6.0% of the gathered grain harvest, and for export – 77% of grains (Table 2.16).

**Table 2.16. Balances of grain and grain products in 2013–2017, thou. t**

Indicators	2013	2014	2015	2016	2017*	Change 2017, compared to 2013, %
Beginning stocks	2035,6	2040,5	2249,6	3125,7	2638,3	29,6
Production	4566,8	5324,1	6521,4	5757,1	5781,5	26,6
Import**	425,4	487,8	338,3	322,7	421,4	-0,9
Total resources	7027,8	7852,4	9109,3	9205,5	8841,2	25,8
Export**	2930,5	3556,9	3972,2	4484,4	4412,6	50,6
Domestic uses	2056,8	2045,9	2011,4	2082,8	1995,1	-3,0
seeds	250,4	281,0	298,2	334,4	324,0	29,4
animal fodder	1197,3	1161,6	1069,7	1088,9	1004,0	-16,1
losses	52,2	68,1	92,0	101,6	102,0	95,4
industrial uses	206,0	181,4	196,0	206,2	219,4	6,5
human consumption	350,9	353,8	355,5	351,7	345,7	-1,5
Per capita consumption, kg	119	121	122	123	123	3,4
Ending stocks	2040,5	2249,6	3125,7	2638,3	2433,5	3,4
Self-sufficiency level, %	222	260	324	276	290	67,8***

\* LIAE calculations.

\*\* In grain equivalent.

\*\*\* Percentage points.

Source: *Agriculture in Lithuania 2016. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658.*

**Foreign trade in grains and grain products.** The key EU exporters of cereal grains (by quantity) in 2017 were France (23% of the total export of cereals), Romania (22%), Germany (20%), and Poland (8%). In 2016–2017 the EU export was by 9.3% lower than the average export in 2011–2015. Export to France has dropped most significantly (44%). The main export markets of cereal grains were Saudi Arabia (16%) and Algeria (13%), while the markets of Egypt, Vietnam, Turkey and Morocco comprised 5% each. When comparing export of 2015–2017 with the average export during 2011–2015, it is seen that export to Vietnam has increased most substantially (6.6 times) as well as to the main export market – Saudi Arabia (by 26%). Export to Vietnam is increasing due to the free trade agreement signed between the EU and Vietnam in 2015.

Of cultivated crops Lithuania in 2017 has largely exported wheat and meslin; they accounted for 87.5%. Comparing with the last year, the share of export of these cereals has reduced by 5.3 percentage points and export value reached EUR 528.6 million. In 2017, compared to 2016, export of cereal grains in terms of quantity has reduced by 1.6%, the export value of cereal grains increased by 4.4%, and the average

price of export (179 EUR/t) was higher by 6.1%. During the reference period, export of barleycorn increased most substantially (by 4.1 times). Exports were also higher of rye flour (66.7%), rye (44.4%), wheat flour (37.8%) and rape (12.8%), lower exports were of wheat (7.2%) and cereal groats (7.5%). Comparing export of cereal grains and their products in the year 2017 with 2013, it is seen that export of wheat and milling products has increased, whereas of other cereals and rape went on diminishing (Fig. 2.17).

**Table 2.17. Exports of cereal grains and grain products in 2013–2017, thou. t**

Products	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Cereal grains	2503,9	3088,2	3164,8	3510,3	3451,8	38,0
of which:						
wheat	1936,7	2516,0	2398,6	3257,9	3022,5	56,1
rye	30,0	17,8	27,3	19,6	28,3	-5,7
barley	278,4	320,5	403,0	45,4	186,6	-33,0
Rapeseed	369,5	279,2	419,2	193,0	217,8	-41,1
Milling products	213,1	206,0	251,4	251,0	287,7	35,0
of which:						
wheat flour	16,8	14,0	13,6	12,7	17,5	4,2
rye flour	1,2	0,6	1,2	0,9	4,5	25,0
cereal groats	3,8	5,1	4,5	4,0	3,7	2,6

Source: Statistics Lithuania.

In 2017, export of Lithuanian cereal grains to EU countries diminished by 1.2 percentage points, and constituted 3.3% of the total export of cereal grains. The largest portion of export in 2017 was shipped to EU countries: to Latvia 33.6%, Spain 21.4%, the Netherlands 16.6%, and Germany 7.9%. The share of exports to the countries in question, as compared to 2016, was as follows: increased to Latvia by 2.6 percentage points, reduced to Spain by 9.6 percentage points, increased to the Netherlands by 4.5 percentage points and reduced to Germany by 3.6 percentage points. The average price of export to EU countries was higher by 19.2 EUR/t (183.0 EUR/t) as compared to 2016. Export of cereal grains to other third countries in 2017: to Turkey 36.1%, Saudi Arabia 34.0%, and Republic of South Africa 7.7%. The share of export to above-mentioned other third countries, as compared to 2016, has increased: to Turkey by 20 percentage points, to Saudi Arabia by 1 percentage point, and Republic of South Africa by 4 percentage points. Price of export to third countries in 2017, as compared to 2016, increased by 3.4 EUR/t and equalled 176.7 EUR/t.

The largest portion of the milling products (73%) was shipped to EU countries, and, as compared to 2016, this portion decreased by 1.3 percentage points. The key export markets in 2017 were Poland, Finland, and Latvia; exports, respectively, accounted for 38%, 16%, and 13% of the total milling products exported to the EU.



Imports of cereal grains in Lithuania in 2017, as compared to 2013, decreased by 18% – to 238.6 thou. t, whereas import of the milling products increased by 17% (Table 2.18). In 2017, compared to 2016, import of cereal grains increased by 30.5% and the average import price for cereal grains (227.3 EUR/t) was by 17 EUR/t lower than in 2016. Import of barleycorn increased most substantially (by 9 times) with the average import price for it (177 EUR/t) lower by 33 EUR/t than in 2016. In Lithuania in 2017 the yield of oats was lowest within the period of 2013–2017. Negative stock changes in these latter years were noted. Import of the milling products in 2017 was by 8.5% higher than in 2016. Import of milling products went up in price and, on the average, amounted to 394 EUR/t, or by 9 EUR/t higher than in 2016.

**Table 2.18. Imports of cereal grains and grain products in 2013–2017, thou. t**

Products	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Cereal grains	291,0	352,9	204,7	182,8	238,6	-18,0
of which:						
wheat	49,1	119,9	67,8	84,0	34,0	-30,8
rye	10,7	13,9	8,1	10,2	16,0	49,5
barley	55,9	37,3	8,6	6,1	55,5	-0,7
Milling products	58,9	64,2	62,5	63,6	69,0	17,1
of which:						
wheat flour	23,6	31,7	32,5	34,5	39,5	67,4
rye flour	13,1	6,2	3,8	9,4	6,0	-54,2
cereal groats	3,4	3,2	2,9	4,0	4,3	26,5

*Source: Statistics Lithuania.*

The major portion of imports of cereal grains from EU countries in 2017 was shipped from Italy (24%), Spain (23%), and the Netherlands (18%). The main exporting countries to the EU were Ukraine (52%), Canada (13%), and the United States of America (9%).

**State aid and economy.** In 2017, the basic direct payments for cereal and rape crop areas were paid (62.80 EUR/ha) and they were intended for the applicants for UAA areas, irrespective of the plant species. Farmers growing cereals and rape could receive additionally the payment for the first 30 ha UAA – 56.30 EUR/ha and the green payment of 49.20 EUR/ha. If the cultivator of cereals and rape is a young farmer (at the age under 40 years) who has registered his holding not earlier than 5 years ago, the payment of 45.80 EUR/ha is paid. The State from 2015 started paying the coupled payments for protein plants to the farmers that in 2017 amounted to 42.0 EUR/ha, and from 2017 the coupled payments of 17.90 EUR/ha began to be paid for crop areas sown with certified seed.

According to FADN data on respondent cereal and rape farms, the net income of a farm in 2016 amounted to EUR 10299 – by 5.7% less than, on the average, in all farms and by 2.4 times less than in 2015. Net income per family contractual worker in 2016 made EUR 7802 (these farms, on the average, employed 1,32 family contractual workers), income gained was by 1.5% below the average than in all farms and 2.5 times

lower than in the preceding year. The gross profit (deducting specific, overhead and external factor costs from the total production) was negative in 2016 (EUR -5114). Although costs were by approx. 14% lower, the total production obtained was by 34% less than in the preceding year. The EBITDA profitability ratio of FADN respondent cereal and rape farms with payments for production in 2016 reached EUR 19005, by 39% less than in 2013 and by 47% less than in the preceding year. The major part of the EBITDA profitability ratio (69 %) consisted of the payments, and this part, as compared to 2015, was higher by 28 percentage points.

Climate change has a strong effect on grain cultivation. Even though the average yield in the country in 2017 was slightly higher than that in 2016, separate farms after loss of the part of their harvest were in need of compensations. In 2016, the profitability of farms was also lower than in 2015: the EBITDA profitability ratio with payments per farmers' farm member and EBITDA profitability ratio without payments were lower by 48% and 73%, respectively. It should be noted that cereal and rape farms remain highly specialized. Part of output in these farms, generated from cereals and rape, including the leguminous plants for grain, in 2013–2016, on the average, reached approx. 90% of the total output of these sectors. Therefore, taking into account the sensitivity of this sector to weather conditions, it is necessary that farmers would assess their own readiness to accept changes in farming resulting from climate change and to select decisions so that the stability of earnings of a family farm could be maintained.

### **3.2. Milk**

Raw milk procurement prices in 2017 in Lithuania like throughout the world went on increasing and as compared to the preceding year they were higher by 39%. Among the EU countries, it was one of the fastest boosts in purchase prices for milk (after Latvia). By the price size, however, Lithuania was rated second from the end, outrunning only Portugal, where the price was lower by 0.8 EUR/t. In spite of the price growth, in Lithuania, as compared to 2016, not only the milk production decreased by 0.7% but also milk procurement. The number of dairy cows decreased by 4.5%, and farms engaged in breeding dairy cows by 12.2%. Thus consequences of the drastic raw milk price reduction that took place in 2014–2016 became revealed. Farmers who continued milk production due to biological reasons could not suddenly increase the herds of dairy cows and due to frequent and deep fluctuation of prices did it very cautiously. Upon increase of the global demand in milk products and raw milk lacking on Lithuania's market, milk processors began increasing imports of raw milk.

The milk processing industry in 2017, as compared to the preceding year, has increased sales of milk products by 19%, and their export has augmented by 33%. Profitability percentage, however, got reduced due to the price increase of the main raw material – raw milk.

**Milk production and procurement.** In 2017, the milk yield amounted to 1617 thou. t, of which 87% was purchased for processing (Table 2.19). In comparison with 2016, milk production in 2017 decreased by 0.7%, and, compared to 2013, reduced by 6.2%. Liquid milk purchase during 2017 decreased by 0.7%, and during five years increased by 4.6%.

**Table 2.19. Milk production and purchase in 2013–2017, thou. t**

Indicators	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Milk production	1723,1	1795,1	1738,5	1627,7	1617,0	-6,2
Milk purchase						
natural fatness	1339,5	1435,5	1438,0	1411,8	1401,5*	4,6
basic fatness**	1611,3	1730,6	1738,6	1730,0	1719,4	6,7

\* 4,2 % milk fat, 3,31 % protein.

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

Sources: *Agriculture in Lithuania 2016*. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658.

*Agricultural and Food Market Information System. Milk Sector: Domestic market. – AIRBC, [2018-03-31].*

*<<http://www.vic.lt/zumpris/2018/03/20/2018-03-20-zalio-pieno-supirkimas-is-lietuvos-pieno-gamintoj-2015-2017-m.-metiniai-duomenys/>>.*

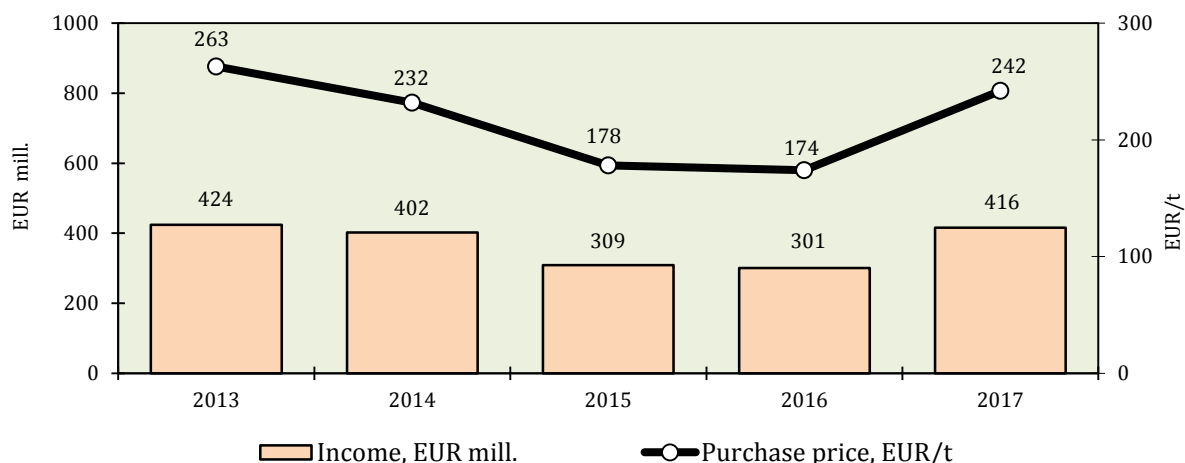
76.4% of milk in 2016 was produced in farmers' farms and family farms. During the reference period, however, the relative weight of agricultural companies and enterprises has been increasing: the agricultural companies and enterprises in 2013 produced 19.0% of milk and in 2016 – 23.6%.

Amount of 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 2017 reached 406.5 thou. t and compared to 2016 increased by 16.1%. Compared to 2013, import of raw milk in 2017 just increased by 1%. Raw milk is imported from Latvia (65% of milk imported in 2017), Estonia (34.4%) and 0.6% from Poland. The average price of imported raw milk per tonne in 2017 was EUR 337.

During 2017, exports of raw milk amounted to 58.9 thou. t – by 26.5 less than in 2016 and by 36.4% less than in 2013. A decline in exports resulted from the increased demand for raw milk on the domestic market. The major portion of raw milk (65.4%) in 2017 was exported to Poland and 34.6% to Latvia. The average price of the exported raw milk was 350 EUR/t. The foreign trade balance of raw milk remained negative within the entire period. In 2013 import was by 309.8 thou. t higher than export, and in 2017 higher by 347.6 thou. t.

In 2017, milk composition indicators, as compared to 2013, have improved: in 2017 the average fatness of the purchased milk was 4.19%, protein content 3.32%, whereas in 2013 fatness amounted to 4.16%, protein content was 3.25%. In 2013, 96.4% and in 2017, 96.7% of the total purchased milk complied with the EU veterinary and hygiene requirements.

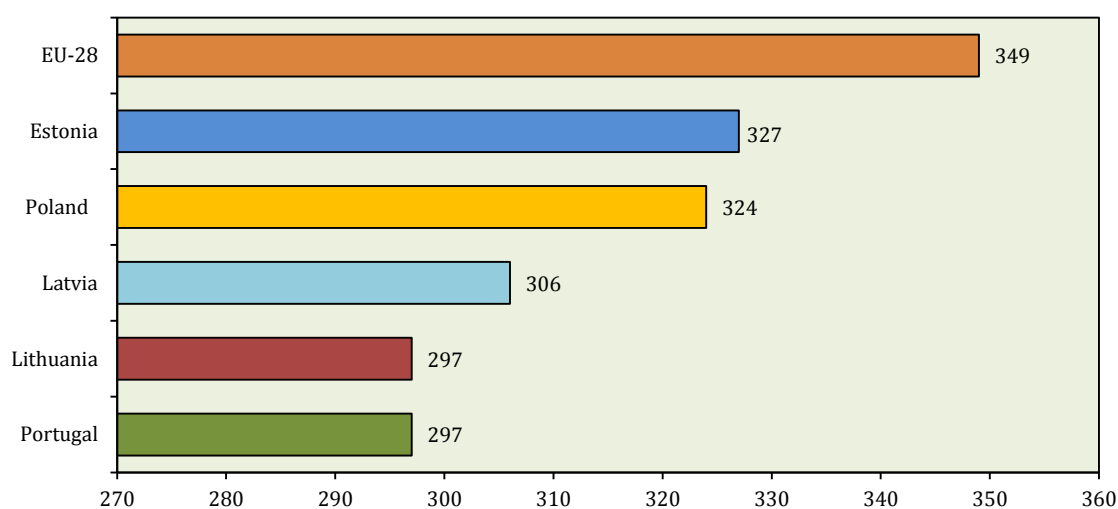
The milk purchase price within the reference period has fluctuated. In 2013, the average purchase price for milk of basic indicators that jumped up to 263 EUR/t reached the record-equalling price of all times. From the beginning of 2014 to the middle of 2016, it went on decreasing and only from the second half-year of 2016 it was increasing. In 2017, the purchase price for milk of basic indicators reached 242 EUR/t (Fig. 2.10). Comparing to 2013, it has decreased by 8%. The average price for liquid milk per tonne in 2017 was EUR 297.



**Fig. 2.10. Purchase price and income from sales of milk of basic indicators in 2013–2017**

Sources: *Agriculture in Lithuania 2016*. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658. *Agricultural and Food Market Information System. Milk Sector: Domestic market.* – AIRBC, [2018-03-21]. <<http://www.vic.lt/zumpris/2018/03/20/2018-03-20-zalio-pieno-supirkimas-is-lietuvos-pieno-gamintoju-2015-2017m.-metiniai-duomenys/>>.

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 milk purchase price in Lithuania over the reference period, except 2013 and 2017, was lowest in the EU. In 2013 Latvia (EUR 9.6) and in 2017 Portugal (EUR 0.8) was outrun (Fig. 2.11).



**Fig. 2.11. Milk (natural fatness) purchase price in Lithuania and in some other EU countries in 2017, EUR/t**

Sources: *Agricultural and Food Market Information System. Milk Sector: Domestic market.* – AIRBC, [2018-03-21]. <<http://www.vic.lt/zumpris/2018/03/20/2018-03-20-zalio-pieno-supirkimas-is-lietuvos-pieno-gamintoju-2015-2017m.-metiniai-duomenys/>>; *EU milk prices – DG Agri. DairyCo*, [2018-04-05]. <<https://dairy.ahdb.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dg-agri/#.Wrj88H-xXbg>>.

From 2013 to the end of 2017 the number of cow-keeping farms decreased by 23.0 thousand, or by .3% (Table 2.20). In 2017, 61% 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 2017, the number of cows per farm was 6.6. The smaller average dairy farms were only in Romania: in 2016 the average farm in Romania had 2.4 cows, and in Lithuania 6.1 cows. Milk production farms, however, are becoming larger in Lithuania. In 2017, as compared to 2013, the average dairy farm has increased by 37.5%.

**Table 2.20. Dairy farms by number of cows in 2013 and 2017  
(at the end of the year)**

Number of cows per farm	Number of farms			Number of cows, thou.		
	2013	2017	change 2017 compared to 2013, %	2013	2017	change 2017 compared to 2013, %
1-2	45014	26416	-41,3	56,8	33,7	-40,7
3-9	14250	10298	-27,7	65,7	48,6	-26,0
10-19	2642	2216	-16,1	35,8	30,3	-15,4
20-29	1003	949	-5,4	23,9	22,8	-4,6
30-49	781	719	-7,9	29,7	27,1	-8,8
50-99	457	487	6,6	31,0	33,0	6,5
>=100	244	269	10,2	67,5	76,6	13,5
Total	64391	41354	-35,8	310,4	272,1	-12,3
Average per farm, heads	X	X	X	4,8	6,6	37,5

Sources: Agricultural and Food Market Information System. Milk Sector: Domestic market. – AIRBC, [2018-03-21].

<[http://archyvas.vic.lt/uploads/file/06\\_ukiu140101\\_pagal\\_gyvas\\_karvs11.pdf](http://archyvas.vic.lt/uploads/file/06_ukiu140101_pagal_gyvas_karvs11.pdf)>;

<[http://archyvas.vic.lt/uploads/file/07\\_ukiu140101\\_pagal\\_gyvus\\_karvs21.pdf](http://archyvas.vic.lt/uploads/file/07_ukiu140101_pagal_gyvus_karvs21.pdf)>;

<[http://archyvas.vic.lt/uploads/file/08\\_ukiu140101\\_pgLgy\\_kar22.pdf](http://archyvas.vic.lt/uploads/file/08_ukiu140101_pgLgy_kar22.pdf)>;

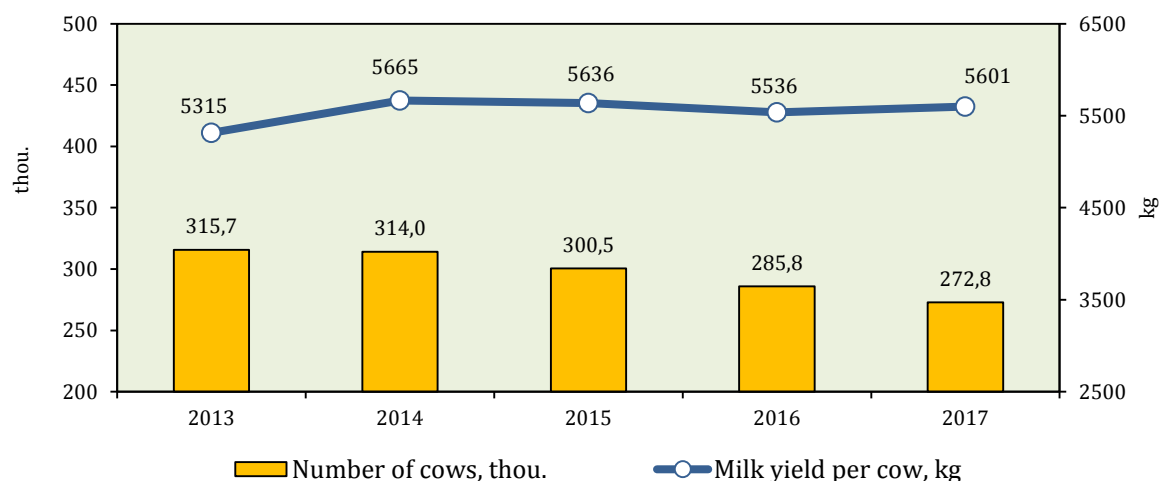
<[http://archyvas.vic.lt/uploads/file/06\\_ukiai\\_karves\\_1\\_180101.pdf](http://archyvas.vic.lt/uploads/file/06_ukiai_karves_1_180101.pdf)>;

<[http://archyvas.vic.lt/uploads/file/07\\_ukiai\\_karves\\_2\\_180101.pdf](http://archyvas.vic.lt/uploads/file/07_ukiai_karves_2_180101.pdf)>;

<[http://archyvas.vic.lt/uploads/file/08\\_ukiai\\_karves\\_3\\_180101.pdf](http://archyvas.vic.lt/uploads/file/08_ukiai_karves_3_180101.pdf)>.

The process of enlargement of an average dairy farm takes place alongside the diminishing number of small and medium-sized farms and the gradually increasing number of large farms. The number of farmers keeping 1–9 cows is decreasing most rapidly: their number in 2017, as compared to 2013, has dropped by 38.1%. In 2017, however, 30.2% of the herd of cows has been still kept in the farms of that size. Only the number of farms keeping 50 and more cows is increasing. During the five-year period their number increased by 55 (7.8%), and in 2017 the herd of cows kept in the mentioned farms amounted to 40.3%.

According to the data of the Lithuanian Department of Statistics, from 2012 to the end of 2016, the number of dairy cows decreased by 45.2 thousand (Fig. 2.12). Their number was consistently diminishing throughout the whole reference period. In 2016, as compared to 2015, the number of cows reduced by 4.9%. This was the biggest annual decrease in the number of cows within the reference period.



**Fig. 2.12. Number of dairy cows (at the end of the year) and average milk yield per cow in 2013–2017**

Sources: *Agriculture in Lithuania 2016*. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658; *Statistics Lithuania*

The average productivity per cow in Lithuania in 2017 was 5601 kg. The productivity of cows in 2014, as compared to 2013, has increased by 6.6%. However, in 2015 and 2016 the cow productivity went on decreasing. 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, as compared to 2016, the cow productivity increased by 1.2%, and, comparing with 2013, by 5.4%, though the 2014–2015 level has not been reached. The average milk yield of cows under control during the control period of 2016–2017 reached 7507 kg – by 3.2% more than in 2015–2016 and by 11.0% more than in 2012–2013. During the control period of 2016–2017, 51.7% of all dairy cows were under control in the country.

**Manufacturing of dairy products.** The dominant position in the milk processing sector of Lithuania belongs to the five groups of milk processing companies: Rokiškio sūris AB, Pieno žvaigždės AB, Žemaitijos pienas AB, Vilkyškių pieninė AB, and Marijampolės pieno konservai UAB. The first four groups of companies during the reference period of 2013–2017 generated 70-80% 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. From 2017, it started manufacturing dry products of high value added intended exclusively for export markets. The remaining milk processing companies are smaller, though some of them are also exporting the large portion of their products.

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

The reviving global economies after the 2013–2014 global crises created conditions for increasing dairy product sales (Table 2.21). However, in 2015, as compared to 2014, as a result of the diminished global demand in dairy products and Russia's embargo imposed on imports of food products from the EU, sales dropped by

21.4% and comparing with 2013 by 19.7%. With an increase in the demand for dairy products, sales started increasing again in 2016–2017. In 2017, as compared to 2016, sales increased by 19.3%, and in comparison with 2013 by 2.7%. Export during the five-year period has dropped by 1.6%.

**Table 2.21. Key indicators of the milk processing industry in Lithuania in 2013–2017**

Indicators	2013	2014	2015	2016	2017
Number of milk processing enterprises & subsidiaries	32	33	34	36	36
Sales of dairy products and dairy products with vegetable oils, EUR mill.	939,7	959,8	754,3	808,3	964,7
share in total output of the food industry, %	31	31	25	26	29
Export income of milk processing companies, EUR mill.	541,0	558,5	379,3	400,0	532,5
share in total income from sales of dairy products and dairy products with vegetable oils, %	58	58	50	49	55

Sources: *Production of commodities 2013–2016*. Vilnius: Statistics Lithuania. ISSN 1648-5777;  
*Industrial Production*. Statistics Lithuania, [2018-03-18]: <<http://osp.stat.gov.lt/statistiniu-rodikliu-analize1>>;  
*State Food and Veterinary Service, 2018 -03-23*: <<http://vetlt1.vet.lt/vepras/>>.

The key trend in the specialisation of the milk processing industry in Lithuania is the production of cheeses. These products also prevail in the export structure. During the period of 2013–2017, the cheese production structure got changed: manufacture of fresh cheeses increased by 46.2%, whereas of non-processed cheeses decreased by 45.7%. The total amount of cheeses manufactured within that period, however, just dropped by 8.3%. Manufacture of fresh dairy products in 2017, as compared to 2013, has also declined, and production of the remaining dairy products went up. A substantial increase was in the production of canned milk products (81.2%) and butter (22.6%) (Table 2.22). In 2017, as compared to 2016, manufacture of almost all dairy product groups has diminished, except ice-cream (increased by 77.2%), sweet cream (increased by 11.9%), and non-processed cheese (increased by 7.3%).

**Table 2.22. Production of main dairy products in 2013–2017, thou. t**

Products	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Drinking milk	100,7	110,2	93,0	109,5	98,4	-2,3
Cream	60,8	61,7	68,9	63,1	70,6	16,1
Sour milk, kefir	37,1	37,8	37,8	37,3	36,7	-1,1
Yoghurt	19,7	19,5	18,2	17,3	15,6	-20,8
Sour cream & mixes	27,9	27,1	25,8	24,5	23,9	-14,3
Curd	27,4	24,1	20,4	21,3	21,1	-23,0
Butter and other milk fats	11,5	16,3	13,9	17,0	14,1	22,6
Fresh cheese	35,3	42,1	39,1	51,7	51,6	46,2
Unprocessed cheese	51,4	37,8	32,9	26,0	27,9	-45,7

Products	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Dried milk and whey products	41,2	49,3	47,7	55,3	43,6	5,8
Ice cream, mill. l	29,3	30,8	28,2	37,7	35,1	19,8
Canned dairy products	13,3	16,2	13,8	13,6	24,1	-81,2

Source: Production of Commodities 2013–2017. Vilnius: Statistics Lithuania. ISSN 1648-5777.

**Domestic market in dairy products.** Consumption of milk and milk products in milk equivalent per capita in Lithuania in 2016, as compared to 2013, increased by 4.6%. Over the period of 2013–2017, consumption of certain dairy products, manufactured industrially, fluctuated and topped out in 2017. This resulted from the increased purchasing power of the average monthly net wages calculated according to dairy product prices (Table 2.23). The purchasing power went up as a result of increase in wages. Retail prices for dairy products have apparently increased in 2017 and were higher than in 2016 and 2013 (with small exceptions).

**Table 2.23. Changes in consumption of milk and dairy products and factors influencing consumption in 2013–2017**

Products	2013	2014	2015	2016	2017	2017, compared to 2013, %
Per capita consumption of milk and dairy products, kg						
Milk and dairy products (in milk equivalent)	307	312	315	321	n. d.	...
Cheese*	20,4	17,3	18,9	20,2	20,7	1,5
Butter*	3,9	3,0	3,4	4,1	4,4	12,8
Sour milk products*	31,1	28,8	28,1	31,5	32,0	2,9
Drinking milk*	32,5	33,2	31,7	34,7	30,9	-4,9
Purchasing power of average monthly net wages and salaries						
Butter, kg	72	72	83	93	80	11,1
Sour cream, 20–30 % fat content, kg	177	176	195	214	204	15,3
Curd, 5–9% fat content, kg	132	132	152	174	183	38,6
Milk, 2,5% fat content, l	694	675	757	833	904	30,3
Average retail price of milk and dairy products, EUR/kg						
Butter	6,96	7,31	6,69	6,44	8,25	18,5
Milk, pasteurised, 2,5% fat content, EUR/l	0,72	0,78	0,73	0,72	0,73	1,4
Sour cream, 20–30% fat content	2,83	3,00	2,84	2,81	3,23	14,1
Curd, 5–9% fat content	3,78	3,98	3,64	3,44	3,60	-4,8

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

Sources: Production of Commodities 2013–2017. Vilnius: Statistics Lithuania. ISSN 1648-5777;  
 Economic and social Development in Lithuania, Latvia and Estonia 2013–2017. Vilnius: Statistics Lithuania. ISSN 2029-5936;  
 Agriculture in Lithuania 2016. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658;  
 Economic and Social Development in Lithuania 2017/12. Vilnius: Statistics Lithuania, 2015. ISSN 2029-364X, [2018-04-05].  
 <<http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=29100>>;  
 Data of Statistics Lithuania.



The overall Lithuanian market of dairy products at wholesale prices in 2017 amounted to EUR 563 million. In comparison with 2013, it has augmented by 8.9%. 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 2013, the imported dairy products accounted for 22.9% of the total dairy products sold on the Lithuanian market (excluding raw milk import), and in 2017 for 23.3%.

Imports of dairy products from other EU countries accounted for 99.4%. Here the neighbouring countries are predominant: 50.9% of dairy products are imported from Poland, 13.0% from Latvia, 8.5% from Estonia, and 11.4% from Germany. Cheeses, fermented and acidified dairy products, concentrated milk and sweet cream are dominating in the structure of imports of dairy products. In 2017, the total amount of imported dairy products (including ice-cream, lactose, and casein, but excluding raw milk) made EUR 131.0 million, or by 10.6% more than in 2013. The volumes of products sold by Lithuanian producers of dairy products on the domestic market in 2017 amounted to EUR 432.2 million, and, if compared to 2016, got increased by 5.9%, and, comparing to 2013, by 8.4%.

The wholesale prices for dairy products sold by Lithuanian producers on the domestic market in 2013 and the first half of 2014 went on increasing, and in 2015 and at the first half of 2016 fluctuated slightly. The rise of wholesale prices started again from September 2016 and made a pause at the end of 2017. Throughout 2017, the wholesale prices of dairy products have increased by 16.3%, and in December 2017, as compared to December 2012, the wholesale prices for dairy products sold by Lithuanian producers on the domestic market have increased by 24.6%.

**Export of milk and milk products.** Balance of Lithuania's foreign trade in milk and milk products in 2013–2017 was positive: in 2013 export surpassed import by EUR 358.0 million, and in 2017 by EUR 304.5 million. The shrinking export surplus was conditioned by the 3% increment in imports of milk and milk products and by the 7.4% decrement in exports.

Export of milk and milk products went on increasing in 2013, in the period of 2014–2015 slowing down, and in 2016–2017 augmenting again. Export of milk and milk products (including ice-cream, lactose, and casein) in 2017 amounted to EUR 572.5 million. 39.5% of the total export consisted of cheese and curd, 32.2% of not-concentrated milk and sweet cream, and 7.4% of whey. The exported raw milk amount comprised 3.6% of the total exports of milk and milk products. In 2017, as compared to 2013, the export structure of milk and milk products got changed noticeably. Changes in exports of certain milk and milk product groups in the direction of both increasing and decreasing were significant (Table 2.24).

**Table 2.24. Exports of milk and dairy products in 2013–2017, EUR mill.**

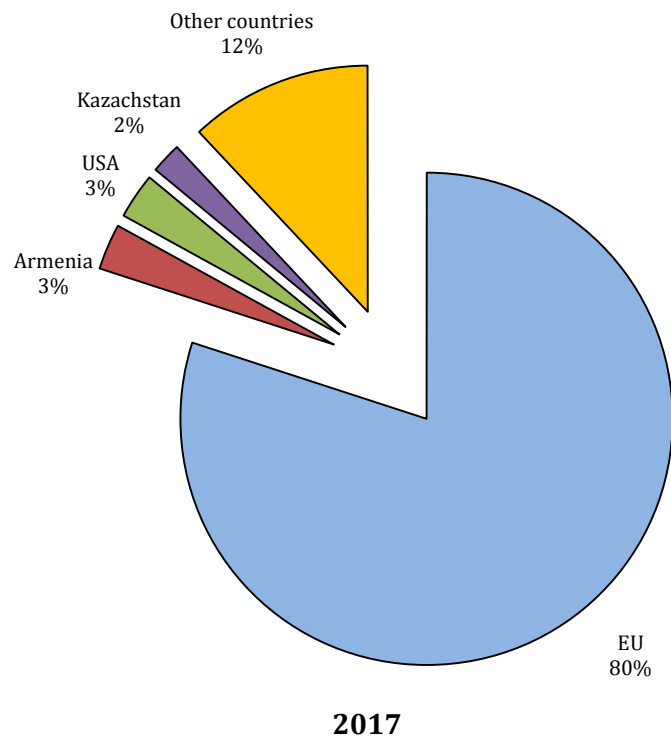
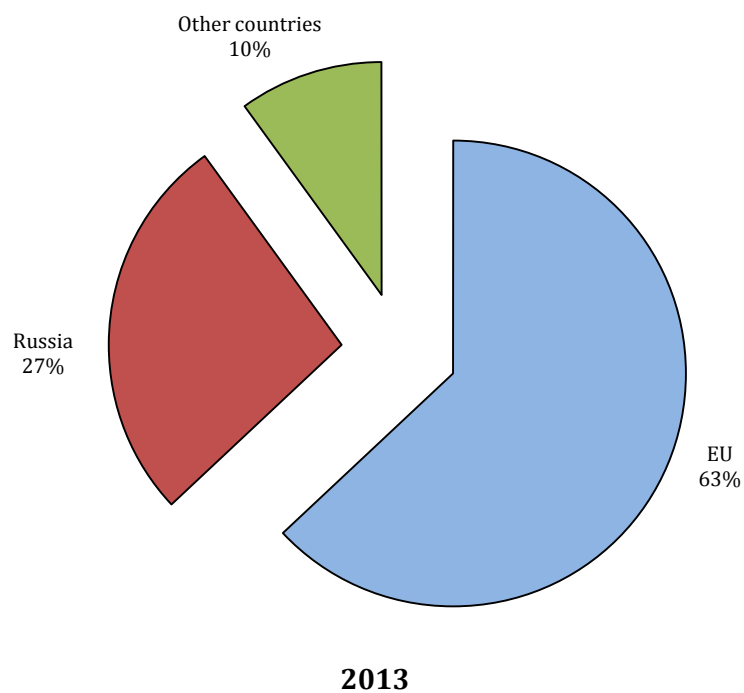
CN code	Products	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
0401	Milk & cream, not concentrated	142,9	140,1	113,4	118,5	184,4	29,0
0402	Milk & cream, concentrated	82,0	93,0	40,7	32,8	41,5	-49,4
040210	Skimmed milk powder	66,4	79,5	28,2	19,8	16,1	-75,8
040221	Whole milk powder	2,5	0,5	0,5	0,7	1,6	-36,0
040291	Condensed milk without sugar	1,2	3,2	3,3	4,9	16,8	14*
040299	Condensed milk with sugar	11,9	9,6	8,8	7,4	6,9	-42,0
0403	Fermented or acidified milk & cream	20,3	16,7	8,3	9,7	8,2	-59,6
040310	Yogurt	9,9	8,0	1,7	2,2	1,8	-81,8
0404	Whey & products consisting of natural milk constituents	43,0	31,8	20,9	22,0	42,1	-2,1
0405	Butter & other fats & oils derived from milk, dairy spreads	24,1	31,0	21,8	34,2	25,0	3,7
0406	Curd & cheese	270,6	255,9	186,2	189,6	225,9	-16,5
040610	Fresh cheese & curd	123,7	121,3	104,9	110,6	136,2	10,1
040690	Other cheese	141,3	129,5	77,0	74,1	83,9	-40,6
210500	Ice cream	21,4	26,3	27,3	30,1	34,2	59,8
350110	Casein	0,0	0,0	0,0	0,7	0,0	...
170211-19	Milk sugar	13,7	14,4	8,9	8,5	11,2	-18,2

\* Times

Source: Statistics Lithuania

Out of the enlarged nomenclature groups of milk and milk products (CN 4 symbols), the most substantial increase was in the exports of ice-cream (59.8%) and not-concentrated milk and sweet cream (29.0%), and most-significant decrease was of exports of fermented or acidified milk and sweet cream (59.6 %) and concentrated milk and sweet cream (49.4 %). Considerable changes occurred within these groups.

The main countries for export of dairy products in 2017 were the EU countries. Export of milk and milk products to these countries amounted to 80%. The share of milk and milk products exported to the EU countries in 2017, as compared to 2013, increased by 17 percentage points. Of the total amount of milk and milk products exported to the EU in terms of value, 30% was shipped to Poland (the dominant products: not-concentrated milk and sweet cream) and 24% to Italy (the dominant products: cheeses and curd). Of third countries, somewhat larger portion of dairy products was shipped to the USA and Armenia (3% each). As a result of an embargo on food products, imposed in August 2014 by Russia, the share of milk and milk products exported to this country reduced noticeably: from 27% in 2013 to 0.6% in 2017 (Fig. 2.13). 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.



**Fig. 2.13. Structure of the export of milk and dairy products by country group in 2013 and 2017**

Source: Statistics Lithuania.

Prices of exported milk products went up in 2013. From 2014 they began dropping again and started increasing at a rapid pace in the middle of 2016. Prices that somewhat declined at the beginning of 2017 reached new heights in September, but in December came back again to the level of January. In December 2017 as compared to December 2012, prices for exported milk and milk products increased by 4.1%.

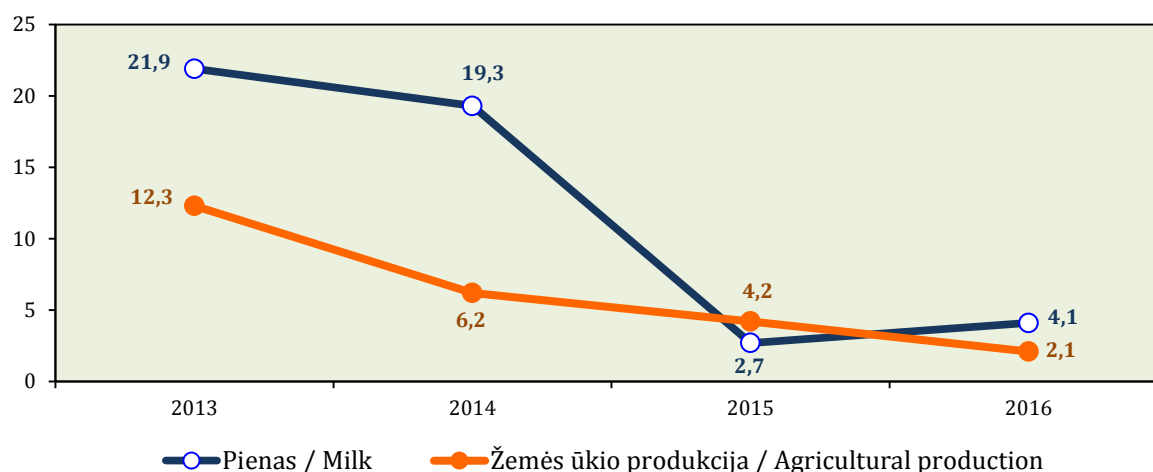
**Market regulation measures.** In Lithuania, like in the entire EU, the common market organisation measures for milk and milk products have been in operation.

For the year 2013 EUR 25.4 million of the decoupled transitional period national aid for milk was calculated, and for the year 2014 EUR 19.3 million. Moreover, in 2014, a special support for milk amounting to EUR 12.3 million was granted. In 2015, the transitional period national aid for milk amounted to EUR 18.25 million and additionally EUR 28.1 million of the temporary support to milk producers who suffered losses due to an import embargo imposed on milk products by the Russian Federation and EUR 22.3 million of the coupled support for dairy cows was allocated. The transitional period national aid for milk in 2016 comprised EUR 17.21 million, and the coupled support of EUR 24.94 million for dairy cows. Moreover, the target support amounting to EUR 24.45 million was assigned to milk producers and EUR 17.66 million of the national aid to milk producers (*de minimis*). The 2017 transitional period national aid for milk comprised EUR 15.3 million, and the coupled support for dairy cows EUR 26.71 million.

Of the common market organisation measures for milk and milk products, in the period of 2013–2017 intervention purchases, private storage of skimmed milk powder, butter and cheese were used, as well as consumption of milk products in educational establishments under the programme “Milk for Children” was supported. In 2015, 8896 t, in 2016, 26065 t, and in 2017, 5683 t of skimmed milk powder were purchased to intervention warehouses. In 2014 applications were satisfied for private storage of 2841 t of skimmed milk powder, 139 t of butter and 170 t of cheese, in 2015 for 5049 thou. t of skimmed milk powder and 1816 t of butter, and in 2016 for 1232 t of butter. According to the programme “Milk for Children”, the support amounting to EUR 5.79 million in 2013, EUR 3.05 million in 2014, EUR 3.55 million in 2015, EUR 3.27 million in 2016 and EUR 3.2 million was disbursed.

**Economic indicators.** Pursuant to the FADN data relating to the respondent farms, the main earnings of which consisted of income derived from milk, the net profitability (net profit and production subsidies per one EUR of sales income from agriculture, including VAT deduction) in 2013 amounted to 36.0% of income, and without subsidies to 17% of losses. In 2016, the net profitability reached 4.0%, subsidies inclusive, and 66.5%, subsidies exclusive.

Milk production was one of the more profitable branches of farming pursued at agricultural companies and enterprises in 2013–2014 (Fig. 2.14). Milk production profitability in 2013 was by 9.6 percentage points higher than the average profitability of agricultural production sales, and in 2014 higher by 13.1 percentage points. In 2015 the average agricultural production profitability by 1.5 percentage points was ahead of the milk production profitability, which reached 2.7%, whereas in 2016 the milk production profitability again outran the agricultural production profitability by 2.0 percentage points. The milk production profitability over the period of 2013–2016 was most highly impacted by the variation in milk procurement prices.



**Fig. 2.14. Profitability (without subsidies) of milk and total agricultural production in agricultural companies and enterprises in 2013–2016, %**

Sources: Official statistical forms of agricultural companies and other agricultural enterprises 2012–2015. AIRBC, [2017-03-29]. <[http://www.vic.lt/uploads/file/OSFI\\_uz\\_2015m\\_.pdf](http://www.vic.lt/uploads/file/OSFI_uz_2015m_.pdf)>.

The average cost price of sold milk production in agricultural companies and enterprises in 2013 amounted to 237 EUR/t, if calculated by reckonable weight, and in 2016 decreased to 208 EUR/t, i.e. by 12.2%. The cost price of liquid milk in 2016 was 256 EUR/t.

The operation of the 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 Vilnius Stock Exchange, was profitable during the period of 2013–2017 (Table 2.25).

**Table 2.25. Net profitability of major dairy enterprises in 2013–2017, %**

Indicator	2013	2014	2015	2016	2017
Net profitability	3,1	1,4	2,3	5,6	2,6

Source: NASDAQ OMX, [2018-05-02]. <<http://www.nasdaqbaltic.com/market/?pg=reports&list%5B%5D=BAMT&list%5B%5D=BAIT>>.

In 2013, the profitability of the processing enterprises has been increased due to the augmented global prices for milk products, even though a ban on exports of milk products to Russia at the end of the year had a certain impact on the profitability in 2013. In 2014, the profitability decreased as a result of the fall in prices for exported milk products and an import embargo on food products announced by Russia in August. In 2015, even though the global prices for milk products went on further diminishing and Russia's embargo was not lifted, the noticeably reduced milk purchase prices helped the processing enterprises generate a higher profit. In 2016, as compared to 2015, the profitability of processing companies has increased by more than twice, since the milk product prices have boosted from the middle of the year, and the raw milk purchase prices have been more noticeably raised only from the third quarter of the year. In 2017, even though prices for milk products were higher than in 2016, due to the increased

prices for raw milk, the profitability of processing enterprises has dropped. In 2017, one of the groups of enterprises (Pieno žvaigždės AB) suffered losses, and the total net profitability of the remaining three enterprises was 3.8%.

### **3.3. Meat**

The present situation in the sector of animal husbandry does not look to be satisfying, since the number of livestock-breeding farms and farmers has been decreasing with each year and the amount of products manufactured from animals grown in Lithuania also dropped. The gross production generated by crop production has been considerably higher since 2011 as compared to livestock-breeding, even though the value added to milk and meat is much higher than that to grain. According to Eurostat data, all three Baltic countries within the last decade have increased annually the crop-production, on the average, by 8.5%, and livestock-breeding merely by 2–4%. This gap has been augmenting not only in our country. The rates of growth in Poland, Ireland, Spain and Italy, however, were to the benefit of livestock-breeders. Practice of direct payments changed in the essence the proportion between crop-production and livestock-breeding. The harvest yielded in the regions of Lithuania possessing characteristic low-fertility soils does not generate enough income for recreation of the capital of farms. Here small and medium-sized farms are dominant; the favourable natural environment for breeding of animals is prevailing. Support to livestock-breeding is an important condition for preservation of agricultural activity and competition in these regions. When tackling livestock-breeding problems it is necessary to take into account the needs of consumers and their capacity for self-sufficiency with products of home production. Consumer surveys show that 2/3 of the total consumers when buying meat give preference to the meat of Lithuanian origin. Lithuania's agriculture is able to supply the market with the production manufactured by Lithuanian agriculturists (except pig meat). Whether self-sufficiency with pig meat for us is possible – this depends on the short-term decisions of politicians and the approach to this branch.

**Livestock-breeding.** Over the period of 2013-2017, the number of cattle, dairy cows and pigs went on diminishing, whereas that of poultry and sheep went up (Table 2.26). The declining purchase prices for pigs and milk have not stimulated an increase in the number of pigs, cattle and dairy cows, whereas the dairy farms increased considerably the herd of beef cattle. An increase of poultry and herds of sheep seems to be optimistic.

**Table 2.26. Number of livestock and poultry in 2013–2017 (at the end of the year), thou.**

Kind of animals	2013	2014	2015	2016	2017	Change 2017, compared to 2013, %
Cattle	713,5	736,6	722,6	694,8	676,3	-5,2
of which dairy cows	315,7	314,0	300,5	285,8	272,8	-13,6
Pigs	754,6	714,2	687,8	663,9	611,9	-18,9
Poultry	9761,6	10218,4	9369,6	10098,9	10405,0	6,6
Sheep	99,6	123,8	147,1	163,6	169,7	70,4

Source: Statistics Lithuania.

**Cattle.** During the period of 2013-2017, the number of cattle decreased by 5% and of dairy cows by more than 13%, whereas the number of beef cattle and cross-bred cattle breeds increased even by 71%. At the end of the year, they constituted one-fourth of the total number of cattle.

According to the data of the Agricultural Information and Rural Business Centre (AIRBC), at the end of the year 2017, cattle in Lithuania was raised in 51.6 thousand farms, i.e. by 31% less than five years ago (Table 2.27). The average size of a farm is not big. On the average, 13 head of cattle were raised per farm. The largest number of cattle is raised by Šilalė (42.8 thou.), Šilutė (37.4 thou.), and Kelmė (28 thou.) farmers.

**Table 2.27. Farms by number of cattle in 2013 and 2017 (at the end of the year), thou. heads**

Number of cattle per farm, heads	2013		2017	
	number of farms	number of cattle	number of farms	number of cattle
1–2	37,4	52,5	23,1	32,4
3–5	17,6	65,8	11,4	43,1
6–10	9,2	69,9	7,0	53,1
11–20	5,3	76,6	4,3	62,4
21–30	1,9	46,2	1,8	43,8
31–50	1,6	64,3	1,7	66,4
51–100	1,3	90,8	1,4	98,5
101–150	0,4	47,0	0,4	53,2
>=151	0,5	197,1	0,5	221,3
<b>Total</b>	<b>75,2</b>	<b>710,3</b>	<b>51,6</b>	<b>674,2</b>
<b>Average per farm, heads</b>	<b>X</b>	<b>9,4</b>	<b>X</b>	<b>13,1</b>

Source: AIRBC data.

In Lithuania over the period of 2013–2017, the number of farms where up to 5 head of cattle are kept decreased by 36%. The average size per farm during the five-year period has increased by 39%. The number of farms with more than 30 head of cattle increased.

The number of beef cattle increased considerably (Table 2.28). In the period of 2013–2017, the number of pedigree beef cattle has increased by two times. At end of 2017, in Lithuania, 177.3 thousand head of beef cattle, including 41.5 thousand head of pedigree cattle, were raised. Of pedigree cattle, most popular were Limousine (8.7 thou.), Angus (6.8 thou.), Aubrac (5.9 thou.), and Charolais (5.2 thou.) breeds. Number of cross-bred cattle breeds raised was by three times more.

**Table 2.28. Number of beef cattle and crossbreds 2012–2017  
(at the end of the year), heads**

Kind of cattle	2012	2013	2014	2015	2016	2017	Change 2017 compared to 2013, %
Purebreds:	16312	19860	23939	29264	35901	41539	154,7
heifers	5852	7137	8886	11303	14095	15578	166,2
cows	5666	6766	8126	9656	11751	14462	155,2
bulls	4794	5957	6927	8305	10055	11499	139,9
Crossbreds:	87268	103603	116481	123427	131904	135724	55,5
heifers	34560	40211	45231	47438	50669	52260	51,2
cows	20040	22994	27066	30417	33743	35860	78,9
bulls	32668	40398	44184	45572	47492	47604	45,7
Total	103580	123463	140420	152691	167805	177263	71,1

Source: AIRBC data.

**Pigs.** By the end of 2017 in Lithuania 611.9 thousand of pigs, of which pedigree sows amounted to 50.3 thousand, were raised by 17 thousand pig keepers (Tables 2.29 and 2.30). During the period of 2013–2017, the number of pigs decreased by 19%. Pig breeders in 2017 raised about 1.2 million pigs, of which 310 thousand were exported, and 880 thousand were slaughtered. African swine fever that began spreading in Lithuania from the beginning of 2014 persisted in Central Lithuania in 2017. Restrictions related to this disease had an impact on pig rearing and prices. Two thirds of pigs are raised by companies and enterprises. Nevertheless, the average number of pigs in a Lithuanian farm is one of the smallest – 13 pigs (EU average – 66).



**Table 2.29. Number of pigs in 2013 and 2017 (at the end of the year), thou.**

Group of pigs	2013	2017	Change 2017 compared to 2013, %
Pigs, total	754,6	611,9	-18,9
piglets, under 20 kg	126,9	118,6	-6,5
piglets, 20 to 50 kg	208,0	166,8	-19,8
pigs for fattening, 50 to 80 kg	187,5	147,4	-21,4
pigs for fattening, 80 to 110 kg	119,4	85,8	-28,1
pigs for fattening, over 110 kg	53,0	42,3	-20,2
breeding sows	48,5	50,3	3,7
boars	0,8	0,7	-12,2

Source: Statistics Lithuania.

**Table 2.30. Numbers of pig keepers and pigs and their structures in 2017 (at the end of the year)**

Number of pigs per farm	Number of		Structure, %	
	keepers	pigs	keepers	pigs
1-10	16388	53908	97,2	9,1
11-100	389	8502	2,3	1,4
101-500	18	4160	0,1	0,7
501-1000	13	9189	0,1	1,6
>1000	48	514968	0,3	87,2
Total	16856	590727	100,0	100,0
Average per farm, heads	X	28,3	X	X

Source: AIRBC data.

**Sheep.** Over the period of 2013–2017 the number of sheep increased by almost 70%. According to the AIRBC data, at the end of 2017, 169 thou. sheep were raised in 10.7 thou. farms (Table 2.31), on the average, 16 sheep per farm.

**Table 2.31. Farms by number of sheep in 2013 and 2017 (at the end of the year), heads**

Number of sheep per farm	2013		2017	
	farms	sheep	farms	sheep
1-2	2061	3112	2371	3606
3-5	1819	7084	2445	9487
6-10	1384	10643	2079	16052
11-20	1064	15551	1802	26420
21-30	435	10893	748	18644
31-50	310	11846	639	24896
51-100	192	13221	375	25916
101-150	54	6551	90	11084
>=151	46	21281	101	33349
<b>Total</b>	<b>7365</b>	<b>100182</b>	<b>10651</b>	<b>169454</b>
<b>Average per farm</b>	<b>X</b>	<b>14</b>	<b>X</b>	<b>16</b>

Source: AIRBC data.

According to the data of the Department of Statistics, during 2017 the number of slaughtered sheep amounted to about 74.4 thousand, of which 90% was slaughtered in domestic slaughterhouses. The largest number of sheep is raised by farmers in Alytus (11.5 thou.), Anykščiai (8.6 thou.), Vilnius (8 thou.), and Molėtai (6.7 thou.) districts.

**Poultry.** By the end of 2017 the number of poultry raised in Lithuania amounted to 10 405.0 thousand, of which hens accounted for 98% (Table 2.32). Laying hens comprised more than one third. Within the five-year period, the number of hens got increased by 6.6%, the number of ducks decreased quite considerably (59%), somewhat less than that of geese (11%). During 2017, the number of hens (3%) and other poultry (by 6 times) has increased.

**Table 2.32. Number of poultry in 2013 and 2017, thou.**

Poultry	2013	2017	Change 2017, compared to 2013, %
Hens, total	9620,8	10203,8	6,1
of which laying hens	3079,2	3518,6	14,3
Geese	11,4	10,2	-10,5
Ducks	35,5	14,4	-59,4
Turkeys	85,7	139,2	62,4
Other	8,2	37,7	3,6*
<b>Total</b>	<b>9761,5</b>	<b>10405,4</b>	<b>6,6</b>

\* Times.

Source: Statistics Lithuania.

According to the data of the Department of Statistics, throughout the year 2017, poultry slaughter amounted to 60.8 million, including 54.7 million hens (90%). Poultry were mostly raised in poultry breeding farms in Vilnius and Kaunas counties.

**Meat production.** By provisional data, animal and poultry carcass meat, produced in 2017 in all farms, amounted to 261.7 thou. t. As compared to 2013, meat production increased by more than 7% (Table 2.33).

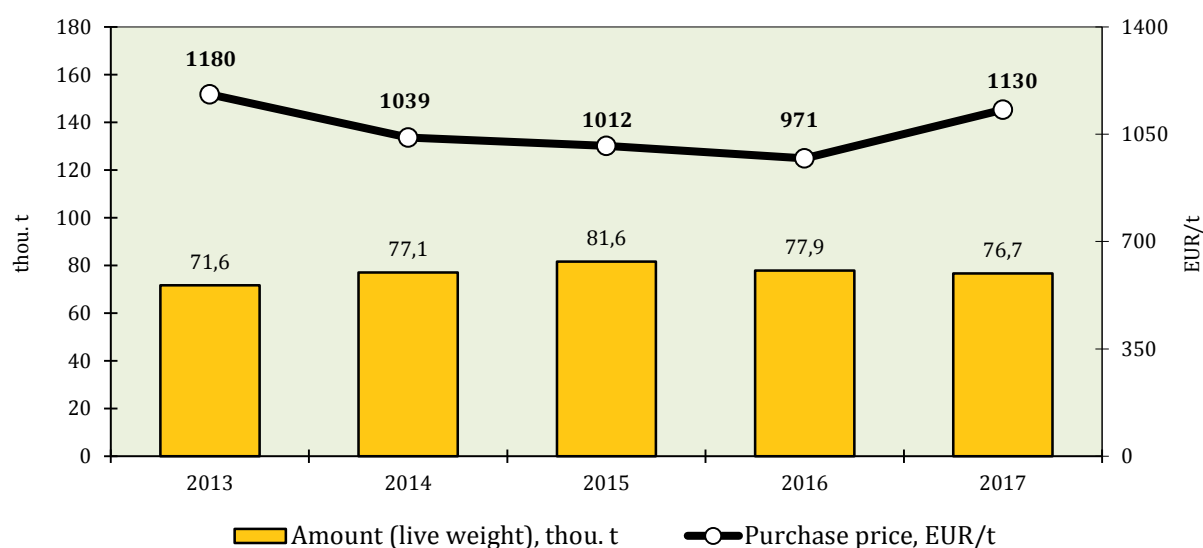
**Table 2.33. Meat production (carcasses) in 2013–2017, thou. t**

Kind of meat	2013	2014	2015	2016	2017*	Change 2017, compared to 2013, %
Meat, total	243,8	253,0	270,1	254,9	261,7	7,3
of which:						
pig meat	101,5	99,5	99,1	86,3	86,8	-14,5
poultry meat	95,8	104,0	115,4	115,5	123,5	28,9
beef	45,3	48,1	53,9	51,2	49,5	9,3
sheep meat	0,8	0,8	1,1	1,3	1,3	62,5

\* LIAE calculation.

Source: Agriculture in Lithuania 2016. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658.

In 2017, the purchased animals and poultry amounted to 297.0 thou. t (live weight), by 4.8% more than in 2016. Over the period of 2013–2017, the purchase price for cattle decreased by 4% (Fig. 2.15).

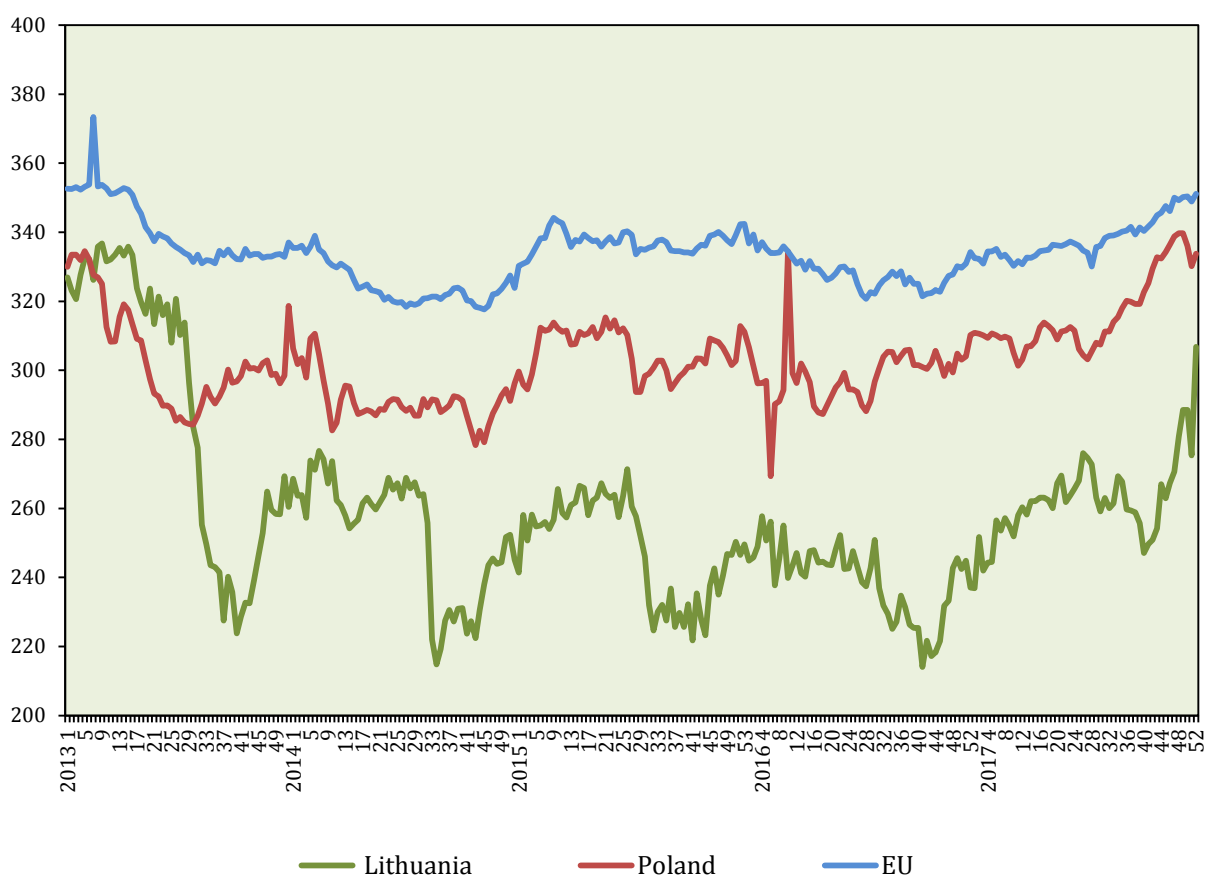


**Fig. 2.15. Amounts purchased and average prices of cattle in 2013–2017**

Sources: Statistics Lithuania and AIRBC data.

In Quarter IV of 2017 the average cattle purchase price in Lithuania was by 17.6% higher than over the same period in 2016. This cattle purchase price in December was higher (6.3%) in almost all EU countries than a year ago. The average purchase price in Lithuania was by 18% lower than the average price in the EU.

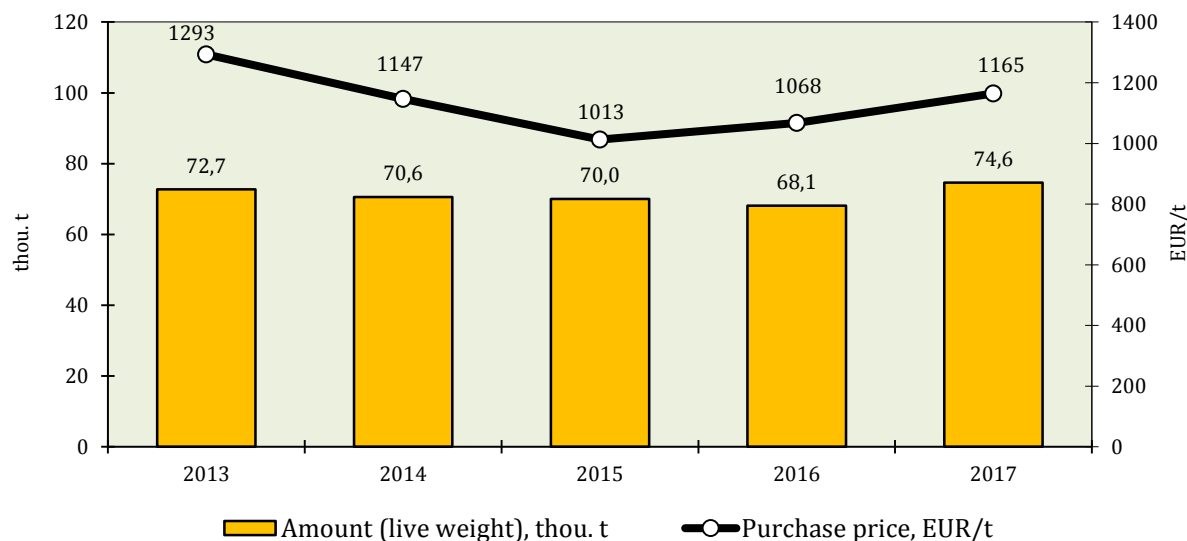
Seasonal prevalence had a considerable impact on price fluctuations in Lithuania in the second half of the years 2013–2016 when the supply of cattle is much higher than the demand. However, the 2017 autumn seasonal prevalence with the purchase prices increasing was much lower (Fig. 2.16).



**Fig. 2.16. Purchase price of beef (Carcass Grade O2) in Lithuania, Poland and EU average in 2013–2017, EUR/100 kg**

Source: EC data.

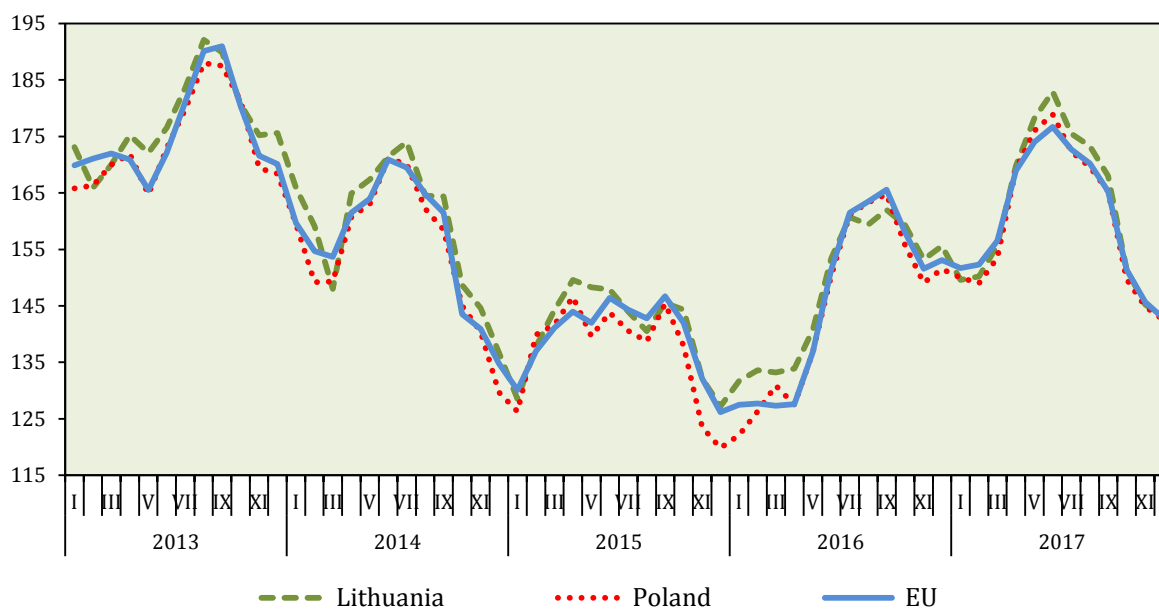
During the year 2017, slaughterhouses and meat processing enterprises have purchased 74.6 thou. t of pigs (live weight) which were raised in farms. In 2017, the average purchase price of live pigs was by 10% lower than in 2013, but by 9% higher than a year ago (Fig. 2.17).



**Fig. 2.17. Amounts purchased and average prices of pigs in 2013–2017**

Source: Statistics Lithuania.

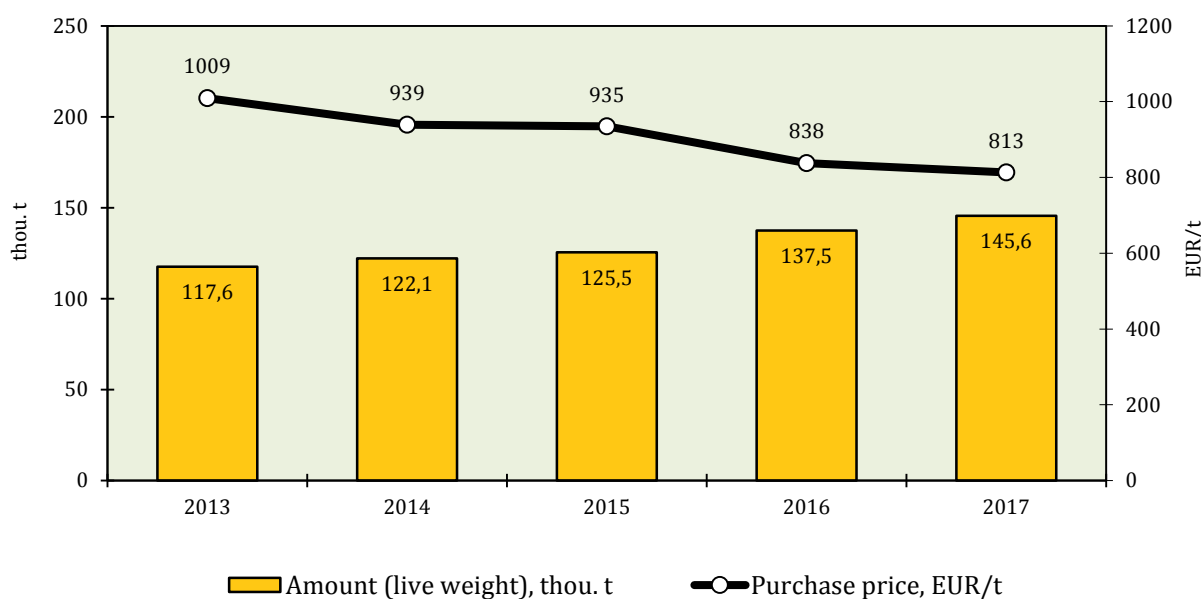
The tendencies of purchase prices for pigs on the Lithuanian market and in the EU countries are similar (Fig. 2.18). In the EU countries in December 2017 the average purchase prices of Grade E pig carcasses were by 7% lower, on the average, than in 2016. Prices in 2017 after the two-year interval have increased considerably. The highest purchase prices for Grade E pigs were in Malta, Cyprus, and Greece, and lowest – in the Netherlands, Belgium, and Spain. In Lithuania the purchase price for pigs (Grade E) was by 0.2% higher than the EU average.



**Fig. 2.18. Purchase prices of pigs (Carcass Grade E) in Lithuania, Poland and EU average in 2013–2017, EUR/100 kg**

Source: EC data.

In 2017, 58.8 million head of poultry were slaughtered in butcher shops and slaughterhouses (by 5% more than in 2016). In 2017, the average purchase price for poultry meat was by 3% lower than in 2016 and by 19% lower than in 2013 (Fig. 2.19). This was impacted by the poultry meat price decrease throughout the EU. In December 2017, as compared to December 2016, the chicken meat wholesale price in the EU was by 5% higher.



**Fig. 2.19. Amounts purchased and average prices of poultry in 2013–2017**

Source: EC data.

The average wholesale prices of chicken carcasses in Lithuania in 2017 were ranked third among the EU countries having the lowest price. As compared to the average in the EU, the wholesale price for chicken meat was by 21% lower. The price for chicken carcasses on the Lithuanian wholesale market was by 11% lower than in Latvia and Estonia. Meanwhile, the wholesale chicken meat price in Poland was by 14% lower than in Lithuania.

**Domestic market.** According to the Lithuanian Department of Statistics data, in 2017, sales of meat and meat products on the domestic market amounted to 245.5 thou. t for EUR 0.5 billion (Table 2.34). In terms of value it was by 7% more than a year ago. Sales of products of all types at value expression was higher, whereas of raw meat (meat and meat offal) dropped by 5%. During the five-year period, consumption of unprocessed beef and pig meat decreased considerably. We consumed almost exclusively the products of local manufacture. Just about 9% of the products were imported.

**Table 2.34. Sales of meat and meat products in the domestic market in 2013 and 2017**

Products	2013		2017	
	<i>thou. t</i>	<i>mill. EUR</i>	<i>thou. t</i>	<i>mill. EUR</i>
Meat and sub-products	98,8	208,0	70,5	155,8
Poultry meat and sub-products	56,5	88,9	55,6	91,3
Meat products	102,2	287,3	97,0	248,6
Imported meat products	21,5	42,7	22,4	52,3
Total	279,0	626,9	245,5	548,0

Source: Statistics Lithuania.

During the period of 2013–2016, meat consumption per capita in the country went on increasing. According to the LIAE calculations, in 2016, per capita consumption per annum in Lithuania was 90 kg of meat and meat products (including Grade I and II meat offal) (Table 2.35). Pig meat and poultry meat remain the mostly consumed sorts of meat (they exceed the EU average), even though we are importing the larger portion of pig meat.

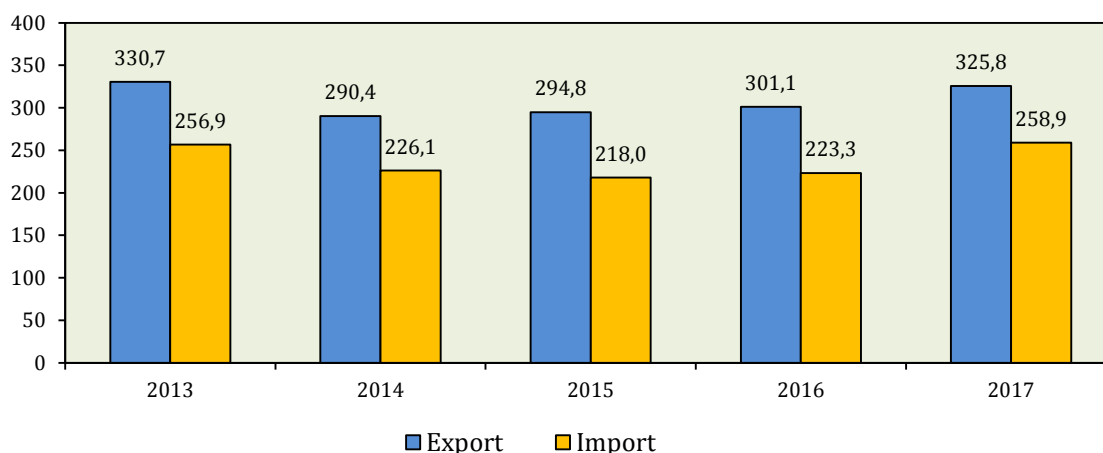
**Table 2.35. Per capita consumption of meat products in 2013–2017, kg**

Meat by kind	2013	2014	2015	2016	2017*
Meat, total	77	83	88	86	90
of which:					
beef	4	4	5	5	5
pork	47	49	50	49	51
poultry	23	26	29	28	30
sub-products, category I and II	3	4	4	4	4

\* LIAE calculation.

Source: Agriculture in Lithuania 2016. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658.

**Foreign trade.** The balance of Lithuanian foreign trade in meat and livestock in 2017 was positive (Fig. 2.20). The export value of meat during the period of 2013–2017 decreased by 1.5%, while that of import increased by 0.8%. The major part of exports consisted of poultry meat (for EUR 95.8 million) and beef (for EUR 84.4 million) and of pig meat imports (for EUR 117.2 million).



**Fig. 2.20. Foreign trade in meat and livestock in 2013–2017, EUR mill.**

Source: Statistics Lithuania.

Export of poultry meat in 2017 made the major portion (Table 2.36). Almost all exported poultry meat (90%) was sold in the EU countries. Poultry meat was mostly purchased in the Netherlands (30%), Latvia (16%), Estonia (12%), and France (9%). Poultry meat export geography covers 49 countries.

**Table 2.36. Meat\* exports by kind in 2013–2017, thou. t**

Meat by kind	2013	2014	2015	2016	2017**
Meat, total	128,1	131,5	136,1	125,1	126,0
of which:					
beef	25,4	29,5	33,5	31,5	30,3
pork	35,7	22,3	27,6	17,0	15,7
poultry	50,9	52,7	56,3	59,3	69,2

\* Meat products in meat equivalent.

\*\* LIAE calculation.

Source: Agriculture in Lithuania 2016. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658; Statistics Lithuania..

Export of beef meat in terms of value was the same as of poultry meat. Sale of beef meat to the EU countries totalled 95%. The major portion of exports went to Italy (26%), Sweden (14%), the Netherlands (13%), and Denmark (10%). Beef meat export geography covers 30 countries.

Exports of live animals increased most of all during the year (by 13%). The major part of exports consisted of cattle (mostly calves) and pigs. The largest amounts of cattle and pigs were exported to Poland (66 %).

Throughout 2017, the highest imports (for EUR 117 million) to the country were of pig meat (50% of the total import value) and of poultry meat (23%) (Table 2.37). 28% of pig meat was imported from Poland, much less from Belgium (16%), Austria (10%), and Denmark (9%). Import of poultry meat by value was by half less, mostly from Poland (72%) and Latvia (17%).



**Table 2.37. Meat\* imports by kind in 2013–2017, thou. t**

Meat by kind	2013	2014	2015	2016	2017**
Meat, total	141,1	145,2	150,1	138,7	136,3
of which:					
beef	2,4	2,2	2,3	2,7	3,2
pork	90,6	84,1	91,8	83,8	70,6
poultry	35,0	36,1	38,7	37,9	42,4

\* Meat products in meat equivalent.

\*\* LIAE calculation.

*Source: Agriculture in Lithuania 2016. Vilnius: Statistics Lithuania, 2017. ISSN 2029-3658; Statistics Lithuania..*

According to the World Food Organization data, the importance of animal husbandry will augment considerably in the nearest 40 years, since livestock production will double. The increased farming intensity, the cultivated new areas of land and innovative technologies will contribute to the production increase. It will depend on our own decisions whether our livestock-breeding will be able to cope with the targets of the period.

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## SUMMARY

In 2017 the sector of agriculture, forestry and fisheries accounted for 3.5% of the gross value-added created in the Lithuanian economy, and agricultural products made up more than 18.3% of the total country's export.

In 2017 the export of agricultural and food products totalled EUR 4.8 billion (by 10.0% more than in 2016), while the import amounted to EUR 3.8 billion (by 11.0% more). Since 2004 the balance of foreign trade in agricultural and food products was positive; in 2017, compared to 2016, it increased by EUR 65 million and totalled EUR 1042 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 2017 the funds for agriculture made up EUR 1042.2 million.

In 2013–2017 the number of agricultural entities by category was changing unevenly. In 2017, compared to 2013, the number of registered farmers' farms went up by 4.3% and, compared to 2016, decreased by 0.1%. The average farm size of agricultural entities that declared UAA in 2017 was 22.2 ha, or by 4.7% larger than in 2016 and by 20.0% more than in 2013.

In 2017 the certified organic area in Lithuania occupied 239.0 thousand hectares, or was by 51.3% larger than in 2013. The average size of a certified farm (including fishery farms) increased from 88.8 ha (in 2016) to 95.9 ha (in 2017).

The composition of the total land area by its intended purpose was almost stable. The largest share occupied agricultural land (52.3%) and forests (33.2%).

The changes in rural employment structure should be considered as an important event of recent years in Lithuania's rural life. In 2013, 27.0% of rural working population were employed in agriculture, forestry and fisheries. Lately, however, when the economic situation has improved, the share of the population employed in agriculture has went down while the share of the population involved in services has augmented. In 2017, 22.6% of the employed rural population were involved in agriculture, hunting, forestry and fisheries.

In 2017, compared to 2013, the number of very small, small and medium enterprises in rural areas increased by 32.1% and reached 14.2 thousand (nearly 80% of which made up very small enterprises).

The overall trend in rural and urban population decline in Lithuania remains. At the beginning of 2017, the rural population made up 936.8 thousand, i. e. it was by 8.5 thousand less than in 2016 and by 45.8 thousand (or by 4.7%) less than in 2013. The rural population accounted for one third, i.e. for 32.9% of the country's population.