### LITHUANIAN INSTITUTE OF AGRARIAN ECONOMICS

# AGRICULTURAL AND FOOD SECTOR IN LITHUANIA

2014

UDK 338.43(474.5) Li 334

An analytical review of the Lithuanian agricultural and food sector over the period of 2010–2014. "Agricultural and Food Sector in Lithuania 2014" 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, fisheries and rural areas.

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#### **ABBREVIATIONS**

AIRBC - Agricultural Information and Rural Business Centre

AFMIS - Agricultural and Food Market Information System

CAP - Common Agricultural Policy

CN - combined nomenclature

EAGF - European Agricultural Guarantee Fund

EC – European Commission

EU - European Union

EU-12 - Member States since 2004 and 2007

EU-15 - the old EU Member States

EU-27 – all EU Member States in 2007

EU-28 – all EU Member States since 1 July 2013

LIAE - Lithuanian Institute of Agrarian Economics

RDP - Rural Development Programme for 2007-2013

TPNS –transitional period national support

UAA - utilized agricultural area

WTO - World Trade Organisation

Quoting requires reference to the source and website address.

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#### **FOREWORD**

The publication "Agricultural and Food Sector in Lithuania 2014" is the sixteenth edition of the annual publications by the Lithuanian Institute of Agrarian Economics (LIAE). This analytical economic survey of agriculture, processing industry and fisheries was prepared referring to the statistical information, accountability data of companies, and the findings of research conducted by the LIAE staff.

The year 2014, full of ordeals, changes and challenges, was complicated for Lithuania's agriculture and food sector. A decline in agricultural product purchase prices resulted in a drop of gross output (at current prices) by 7.7%. Export of agricultural and food products also went down, even though export in products of Lithuanian origin in 2014 was by 0.7% higher as compared to 2013. Balance of foreign trade in agricultural and food products has been positive since 2004. In 2014, it was 1.8 times higher than in 2010 and amounted to EUR 963 million. National agricultural development was further encouraged by the European Union (EU) and national budget support. Due to delay in funding of the 2014–2020 period measures, the amount of funds allocated for 2014 agricultural direct and investment support, intervention and other market regulation measures was lower by 6.5% than 2013.

The publication provides the five-year period variations in the agricultural and food sector development indicators, special attention focusing on the events and outcomes in 2014, except a review "Achievements of the agricultural and agri-food sector in the framework of the objectives of the CAP over the EU membership decade". Pursuing the opportunity to compare the key tendencies, data in all surveys is provided following the single methodology and structure.

As in any previous year, some preliminary statistical indicators for the year 2014 were used. Final economic and financial outcomes will be reflected in the later publications of the Department of Statistics and in the next-year LIAE survey. Insignificant deviations due to rounding are possible in statistical data.

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

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

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

## I. ACHIEVEMENTS OF LITHUANIAN AGRICULTURAL AND AGRI-FOOD SECTOR AND THEIR UNDERLAYING FACTORS

# 1. Achievements of the agricultural and agri-food sector in the framework of the objectives of the CAP over the EU membership decade

From the perspective of the agricultural sector, the decade of the membership of Lithuania in the EU was rather erratic, characterised by climate change challenges and financial difficulties caused by the global crisis. The EU support under the Common Agricultural Policy (CAP) helped Lithuanian producers and processors of agricultural products to deal with new risks and to pursue their business activities. Although agriculture had been identified as a priority branch of the country's national economy and received support from the national budget already before Lithuania became a member of the EU, neither the scope nor the diversity of measures of the national aid could compare to the support that became available after the accession. Lithuanian farmers and entities engaged in farming activities started receiving support through direct payments and measures of rural development programmes financed by the EU. Compared to the support available till then, the farmers could avail themselves of huge amounts of money. In 2004 through 2014, the amount of the EU direct payments came up to EUR 2,641 million. A further EUR 777 million was contributed by the national budget of Lithuania. Another support measure – support for rural development – was of crucial importance not only to farmers but also to rural population in general and over the period from 2004 to 2014 it amounted to EUR 2,286 million (from the EU and Lithuanian national budget).

The EU support gained special relevance in the light of the new farm structure prevailing after the re-establishment of Lithuania's independence. The Soviet farming system was fully transformed by means of land restitution. In a very challenging environment, new Lithuanian farmers had to go the whole length of farm establishment and organisation despite their lack of financial resources and business management knowledge. The land reform launched following the declaration of independence not only introduced major changes in the ownership structure, but also substantially slimmed down the basic agricultural infrastructure of the past. The reform resulted in reduced arable areas, decreased numbers of livestock, and lower volumes of agricultural output. Due to low incomes, agriculture came to be economically unattractive when compared to other economic activities. The EU membership provided the national Lithuanian agricultural policy with CAP resources and experience of implementation.

Since the start of the implementation of the EU agricultural policy instruments in the Lithuanian agricultural sector in 2004, Lithuania has seen an emerging problem of the compatibility of the CAP and national objectives as perceived by the farmers and agricultural policy makers. Throughout the life of the CAP, the objectives of the policy have been changing in the light of the challenges in agriculture and the need to have the CAP objectives matched with public expectations. Since CAP changes represent the result of multilateral negotiations between different interest groups, this process was

characterised by inconsistency resulting from political compromises. Both scientists and the policymakers find it difficult to break the CAP into stages and to identify when one stage ends and another starts. Nevertheless, the European Commission (EC) maintains that three stages can be distinguished with respect of the main objectives of this policy: improvement in productivity, promotion of competitiveness, and sustainable development (Fig. 1.1).

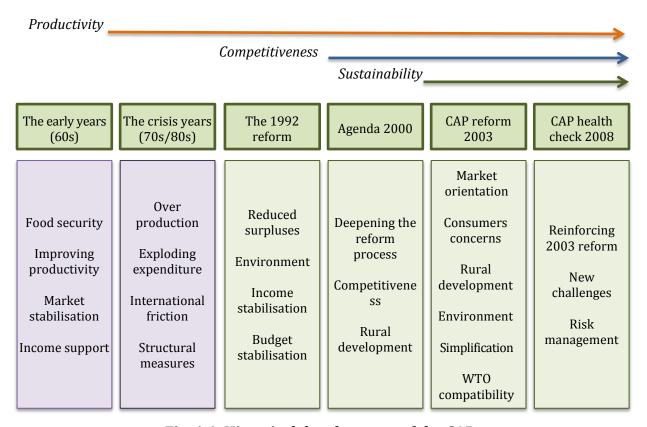


Fig. 1.1. Historical development of the CAP

Source: European Commission Agricultural and Rural Development. 2011. The CAP in Perspective: from Market Intervention to Policy Innovation. Agricultural Policy Perspectives Brief No 1, January 2011 [Interactive]. Available from Internet: <a href="http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/01\_en.pdf">http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/01\_en.pdf</a>.

Created in response to food shortages in Europe after the Second World War, the aim of the first CAP stage was to increase the volumes of agricultural output and to improve productivity. The growth in productivity not only guaranteed food self-sufficiency, but also led to an increase in the farmers' income and absorbed the fast reduction in the numbers of persons employed in agriculture consequent on the migration of population from rural to urban areas. However, the focus on improvements to agricultural output prompted the problem of over-production in the EU, which put the farmers in danger of bankruptcy. This situation was tackled within the framework of export promotion measures, which encouraged disposal of agricultural surpluses to third countries and an increase of agricultural output prices in the domestic market, and market regulation instruments such as intervention buying and private storage. However, the general public had to pay for this policy twice: once for financing the measures to increase production, and the second time for financing interventions addressing overproduction. The latter increased the food prices in the domestic market and consequently the users were forced to use their private money to pay for this policy again.

The CAP objectives of the EU agricultural competitiveness were adopted in response to the problems caused by the support measures of the earlier period. At this stage, the ideas of economic liberalisation aimed to encourage farmers to react promptly to the market needs and to reduce their income dependency on the aid. Support was also given to food supply chain building measures, including marketing. Furthermore, the transformation process was promoted by changes in the structure of rural population employment. Industrialisation of agriculture drastically reduced the numbers of persons engaged in agricultural activities, which affected the spread of the CAP measures among rural population. It was difficult to explain to the general public why such large-scale public resources were allocated to farmers, who represented only a small part of rural population. Therefore rural policy measures, which gave access to support to all rural population rather than the farmers only, were applied ever more widely in parallel with direct payments and market regulation measures intended to support agriculture.

The emergence of sustainable development ideas in the agricultural and rural policy was driven to a large extent by public expectations of safe and clean environment and preservation of natural resources for future generations. The industrialised and monocultural agriculture oriented toward increase of productivity and reduction of production costs came to be a source of chemical pollution posing a risk to biodiversity and the danger of soil erosion. Furthermore, social problems in the EU rural areas became equally important. Owing to shrinking levels of employment in agriculture and difficult conditions for starting alternative businesses in rural areas, the migration outflows from more remote rural areas into urban areas remained large. The migration of rural population damages the vitality of communities and most importantly becomes a threat to agricultural activities: some regions have increasing areas of abandoned land. In the light of increased risks associated with globalisation and climate change, which pose threats to farm viability, diversification of activities and other risk management measures became essential in effort to increase the sustainability of farming activities.

By their nature, the CAP objectives were evolutionary. That means that once a new target was set, the previous objectives were not rejected as a failure but rather they were restricted to avoid any conflict with the new objectives. For instance, following the adoption of the objectives to enhance competitiveness, productivity was promoted only to the extent the increase in the production volumes emanated from market needs. The objective of sustainable growth limited the ability to compete using the cost-based pricing strategy in order to achieve short-term economic goals without considering the need to restore natural resources that are necessary for food production or the social needs of the local community. Under such policy framework, new support measures were added to the list without abandoning the old measures that had been used to attain earlier objectives. Adjustments were made to the latter to respond to the new challenges.

Lithuania consequently did not use the opportunities provided by the CAP exclusively for sustainable development of agriculture, which the EC saw as the most important CAP objective at the time when Lithuania joined the EU. The arsenal of the CAP support instruments allowed Lithuania to pursue the objectives that had been implemented by the old EU countries in the earlier policy stages. That is one of the reasons why throughout all programming periods since 2004 Lithuania has been seeking to use a wider set of support measures while at the same time other countries were able to concentrate on the priorities of sustainable development of agriculture and innovations.

The 10<sup>th</sup> anniversary of Lithuanian membership in the EU provides a great opportunity to review the achievements in agriculture in an effort to achieve the objectives of sustainable development, productivity and competitiveness.

**Productivity.** The issue of food security has never been a serious concern in independent Lithuania. According to the Department of Statistics, in 2004, the output in Lithuanian agricultural sector exceeded the domestic consumption. Per capita agricultural production included 864 kg of grain, 112 kg of vegetables, 302 kg of potatoes, 547 kg of natural milk, 255 eggs, and 65 kg of meat (carcasses). In the above year, one Lithuanian citizen consumed 127 kg of cereal products, 99 kg of vegetables, 124 kg of potatoes, 302 kg of milk and milk products, and 215 eggs. At the beginning of the EU membership, only meat and meat product consumption (71 kg per person) exceeded the production because the meat production volumes shrank due to the reduction in the animal numbers. Therefore, after the Lithuanian accession to the EU, the objective of improvements to agricultural output was set for reasons not due to a need to address the problem of food shortages unlike in other EU countries at the start of the CAP.

The policy orientation toward improvements to agricultural output was driven by the understanding of Lithuanian farmers that larger production volumes meet the needs of the society and generate higher incomes for the farmers. In 2004, most of the farming experience had been gained by the farmers in the period of planned economy under the conditions of persisting deficit of food products and fixed agricultural output buying-in prices. Therefore, the problem of price decrease due to overproduction, e.g. when an export market closes, was hardly known to them. In the allocation of the EU funds for improvements to agricultural output, the priority was given to supporting investments intended to provide farms with capital. As a result, over the period from 2004 to 2014, the gross output and the prices in agriculture, forestry, and fisheries increased more than twofold, from EUR 1,608.4 million to EUR 3,363.2 million (national accounts data). Some of this growth came from the rising agricultural output prices. According to Eurostat data on agricultural accounts, the growth of the agricultural output in response to the increase in prices in 2004 through 2013 accounted for 80.7%. That represented more than one third of the increase in the agricultural output value over this period. The gross value added generated in agriculture, forestry and fisheries was also growing. In 2004 through 2014, it climbed from EUR 760.3 million to EUR 1,133.9 million or by 49.1% (Table 1.1).

Intensification of production gave rise to the growth in the production volumes. Income support measures (direct payments and compensation aid) represented a working capital facility for the farmers, who could consequently use more intensive technologies. Those processes were reflected by higher intermediate consumption expenditure in agriculture. According to Eurostat data on agricultural accounts, over the period from 2004 to 2014 the intermediate consumption expenditure per 1 ha of agricultural land increased twofold. The growth of expenditure on fertilisers/soil improvers and plant protection products (2.3 and 2.5 times, respectively) was faster than the average. Due to increased farm equipment fleets their repair and maintenance costs swell 3.1 times. During the analysed period, the key growth item was agricultural production costs, which are not classified in the group of material costs: other goods and services increased even 3.8 times (this cost group covers a very broad range of goods and services: lease of industrial buildings and long-term assets, salaries for consultants, surveyors, and accountants, communications and transportation costs, insurance

premiums, bank charges and costs of financial intermediation services, permit and licence fees, cooperative and trade union membership fees, etc.).

Table 1.1. Macroeconomic indicators of agriculture, forestry and fisheries in 2004–2014

Indicators	2004	2006	2008	2010	2011	2012	2013	2014
Gross output in agriculture, forestry and fisheries, at current prices, EUR mill.	1608,4	2132,3	2833,6	2377,8	3025,6	3331,9	3363,2	n.a.
Gross value added created in agriculture, forestry and fisheries, EUR mill.	760,3	929,5	1072,5	827,8	1071,3	1319,2	1196,9	1133,9*
Gross value added created in manufacture of food products, beverages and tobacco products, EUR mill.	655,5	793,6	1000,0	1130,5	1283,9	1374,8	1517,0	1539,8**

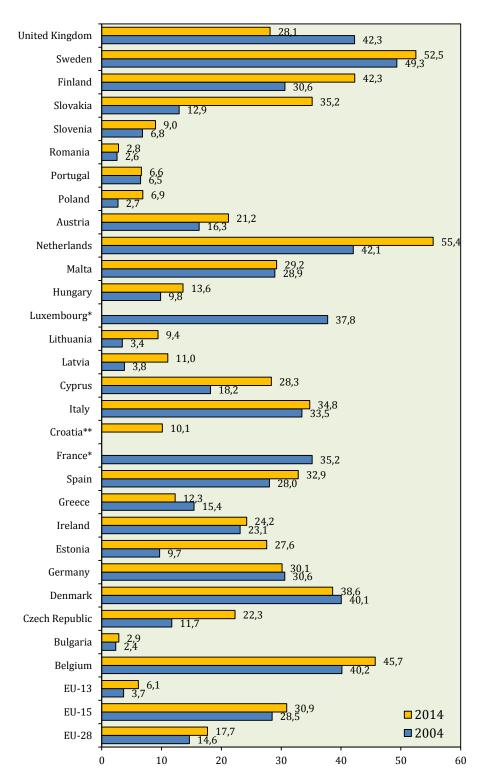
<sup>\*</sup> Preliminary data.

Sources: Data of Statistics Lithuania; Eurostat National accounts.

Modern technologies gave rise to an increase in the technical efficiency of agriculture and consequently agricultural output. In 2004 through 2014, the yield of cereal rose by 22.5%, sugar beet for processing by 53.9%, field vegetables by 24.5%, and potatoes by 33.3%. In the livestock sector, the milk yield per cow demonstrated a growing trend. In 2014, this indicator increased by 35.7% over 2004 – from 4,176 kg to 5,665 kg. The data of economic accounts for agriculture show that owing to higher crop and livestock yields the value of agricultural output per 1 ha of agricultural land grew from EUR 475 to EUR 859 or by 80.6%.

The growth of labour productivity was driven by both growing gross value added in agriculture, forestry, and fisheries and shrinking workforce. Just as in the old EU Member States, industrialisation of agriculture in Lithuania became the cause of reduced employment in this sector. According to Eurostat data, in 2004 through 2014 the numbers of employees in agriculture, forestry, and fisheries decreased from 165.4 thousand employees in full time unit to 147.0 thousand or by 18.4 thousand. Over the period from 2004 to 2014, the gross value added of agriculture (excluding direct payments) per one agricultural worker in full time unit grew up 2.8 times – from EUR 3.4 thousand to EUR 9.4 thousand. Thanks to improved labour productivity, Lithuania was able to reduce the disparity of this indicator with the EU-15 average and to successfully outstrip the levels in EU-12. The value added per capita created in Lithuanian agricultural sector in 2004 accounted for only 11.9% of the average labour productivity in EU-15 and 91.9% of the average in the new Member States. In 2014, it was 30.4% and 154.1%, respectively (Fig. 1.2).

<sup>\*\*</sup> LIAE calculation.



<sup>\* 2014</sup> data not available. \*\* Joined EU in 2013.

Fig. 1.2. Gross value added created in agriculture, forestry and fisheries per annual working unit in EU countries in 2004 and 2014, EUR thousand

Source: Data of Eurostat National accounts

**Competitiveness.** The issue of competitiveness in agriculture was particularly relevant in Lithuania, which produced more agricultural products and foodstuffs than it consumed. Foreign trade was strongly influenced by the Lithuanian membership in the EU, which opened up the opportunity of free trade in the common market. After accession, export subsidies from the EU budget became available to Lithuania. Those payments were made to improve the competitiveness of Lithuanian products in the EU Member States in third-country markets.

Compared with the export levels in other sectors, in 2004 through 2014 the exports of agricultural products and foodstuffs were experiencing exceptional growth. In 2004, it came up to EUR 856 million or 11.5% of the total exports. Over the period from 2004 to 2014, the export volumes of those products increased 5.4 times and in 2014 reached EUR 4,662 million or 19.1% of the national export structure. From the perspective of the contribution of Lithuanian agriculture and food industry, there was a clear trend that the growth of the export levels of agricultural products and foodstuffs was driven not only by the growth of exports of products originating in Lithuania, but also by increased volumes of re-export. In 2004, re-exports of agricultural products and foodstuffs came up to EUR 114.2 million, compared to EUR 1,621.3 million in 2014 – more than 14 times up.

Sector specialisation based on the comparative advantage has a particularly strong impact on the export structure of Lithuanian agricultural products and foodstuffs. The competitiveness of the agricultural sector and its contribution to the national trade balance and economic growth in general depends on the choice of products that should dominate in the Lithuanian agricultural structure and the availability of the best alternative resources for their production and other competitive advantages. At the time Lithuania became independent and later, all strategy documents guiding the rural policy (Priority 4 of the Single Programming Document of Lithuania for 2004-2006, Rural Development Programme (RDP) for 2007-2013) identified livestock farming as a priority. However, since accession, the structure of the Lithuanian agricultural output has been consistently changing in favour of crop growing. In the first years of independence, the decline in the numbers of animals resulted from the new farm structure that emerged after the restitution. After accession, this process was also partly attributable to the use of the EU support. With the view of a larger dairy farm, which in 2004 was only 2.6 cows, rural citizens approaching retirement, who had a small number of cows, were suggested to transfer their holdings, in return for a consideration, to larger and thus more competitive farms. However the successors usually changed the farm operations from livestock to cereal and rapeseed production.

The changes in the agricultural output production structure were also driven by the EU support. Upon Lithuanian accession, EU institutions established a model of direct payments from the Lithuanian budget based on the expectation that it would not lead to an increase in the production volumes or surplus problems but would rather motivate the farmers to be flexible and to make their own choices of what to produce with regard of the market needs. Therefore the amount payable to a farm was not specifically tied to the production volumes or output types. The support amount depended on the number of agricultural land hectares the farmer declared. However, this support model failed to eliminate an impact on the output structure. At first sight this may not be seen, as the support prompted agricultural producers to opt for production having regard to the volumes of required resources rather than particular output types. Greater support was

received by farms with less capital and labour intensive production per one hectare of agricultural land. Because of this support model, Lithuanian farmers opted for growing cereals and rapes. Over the period from 2004 to 2014, the structure of the agricultural output changed in favour of crop growing (Fig. 1.3).

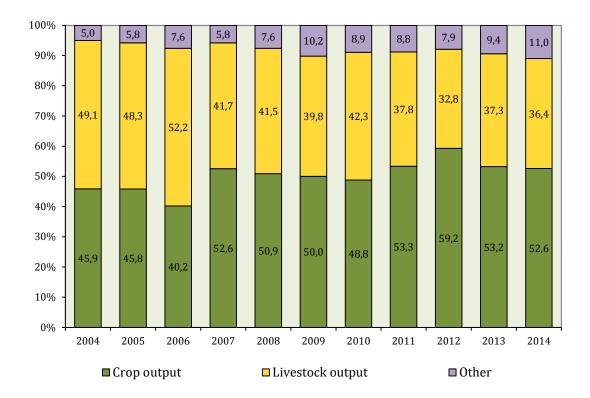
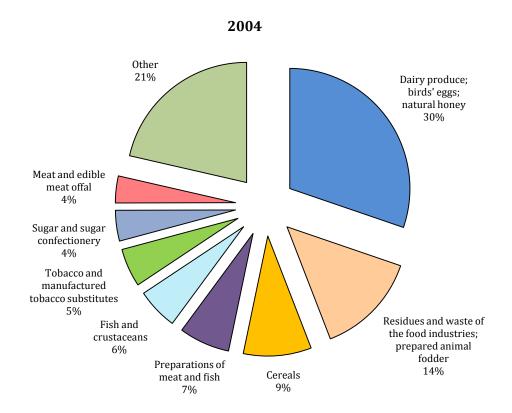


Fig. 1.3. Structure of agricultural output (at current prices) in Lithuania in 2004–2014

Source: Data of Eurostat Economic Accounts for Agriculture.

Agricultural producers' determination to reduce animal numbers and to increase cereal and rape areas shaped the changes in the export structure. After the restitution of the independence, the key exports of Lithuanian agricultural and food sector were milk and dairy products. After accession, those products have retained their leading position, although their share in total exports of Lithuanian origin has been steadily decreasing – from 30.2% in 2004 to 19% in 2014 – despite the fact that over the decade its value increased 2.4 times. Cereals also kept increasing their exports share. Furthermore, this growth was supported by the shrinking feed grain demand in the domestic market, which was caused by the decreasing animal numbers. According to the data of the Department of Statistics, in 2004, cereals accounted for 9.2% of Lithuanian agricultural exports. Over the ten-year period this share came up to 19.2%.



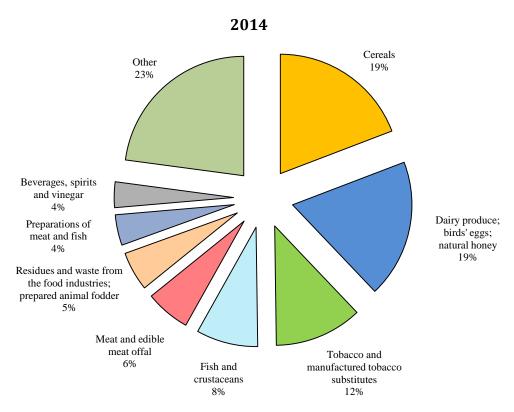


Fig. 1.4. Export structure of agricultural and food products of Lithuanian origin in 2004 and 2014

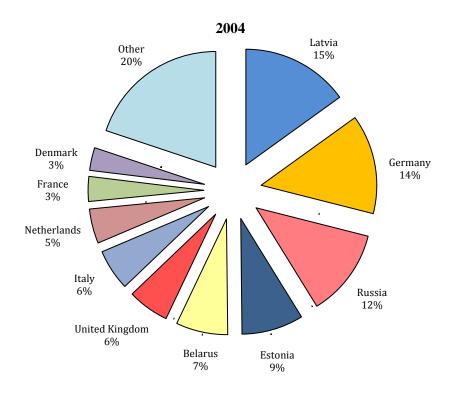
Source: Data of Statistics Lithuania.

With growing rapeseed crop areas their export also increased. In 2012, oilseeds, straw and fodder amounted to 7.4% of Lithuanian agricultural exports, compared to 3.0% in 2004. In 2014, this share decreased to 3.2%, although there was a 4.3-fold increase in their value over 2004. Although cereal and rapeseed export is profitable for economic entities and exporters, selling cereals in foreign markets means that Lithuania brings out a raw material, i.e. a product with the lowest value added.

Changes in the structure of agricultural exports reflect a shift from livestock to cereal and rapeseed production in the long-standing orientation of the Lithuanian agriculture, which was best suited for natural conditions. In effort to reverse this process, in 2010 Lithuania started paying some of the direct payments to beef cattle, sheep and goat breeders. In view of the negative experience, when the support under the extensive growth strategy strengthened large farms, the payments were differentiated, taking account of the number of animals kept on a farm, and consequently smaller farms received bigger livestock aid.

Changes in the specialisation of agriculture gave rise to the growth of imports of raw materials for the food industry. Owing to the increasing export potential and decreasing animal numbers, some of the Lithuanian agricultural production volumes became insufficient to satisfy the need of raw materials for food industry, which led to a fast growth of their imports. According to the data of the Department of Statistics, from 2005, when raw milk imports started, to 2014 its imports increased 10.7 times – from 39.5 to 421.9 thousand tons, while its average price went up 1.2 times – from EUR 275.3 to EUR 332.2 per tonne). Already in 2004 Lithuania was importing small quantities of meat existed, however from 2004 to 2014 meat imports were growing very fast and the imported meat value increased 3.2 times. Pork imports experienced exceptional growth and in 2014 it was 3.6 times up from 2004. Statistical data show that in the same period live animal imports were also increasing. In 2014, the imports of bovine animals accounted for EUR 2.6 million, compared to EUR 0.9 million in 2004; the imports of pigs came up to EUR 19.7 million and EUR 1.4 million, respectively.

The EU membership allowed Lithuania to expand its exports of agricultural products and foodstuffs into new markets. Before the accession, the main agricultural and food product export, including re-export, market was Russia. In 2014, exports to this country accounted for 23% of total agricultural and food product exports (export and reexport of products originating in Lithuania), compared to 13% in 2004. Lithuanian businesses primarily took advantage of trading in the large nearby Russian market, where it had previous experience and where Lithuanian foodstuffs were well known. The SWOT analysis of most strategy papers of Lithuanian agriculture, including the Lithuanian Rural Development Programme for 2014–2020, identify Lithuanian geographical neighbourhood with Russia as a strength of Lithuanian agriculture. However, analysis of the export structure by countries of origin reveals that in 2014 this market was more important for reexport than for products originating in Lithuania. In 2004, the Russian market was less important for exports of Lithuanian agricultural products and foodstuffs than the Latvian market (15% of exports of Lithuanian products) or Germany (14% of exports of Lithuanian products). Lithuanian products enjoyed successful exports to a number of the EU states: Estonia, the UK, Italy, the Netherlands, France, and Denmark. The exports to Russia and Belorus, which has a common economic area with Russia, accounted for 12% and 7%, respectively (Fig. 1.5.).



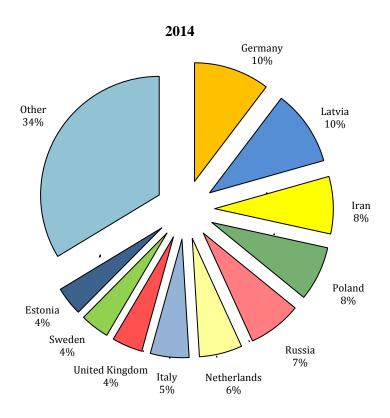


Fig. 1.5. Export structure of agricultural and food products of Lithuanian origin by country in 2004 and 2014

Source: Data of Statistics Lithuania.

Lithuanian membership in the EU opened up the opportunity to sell agricultural output on the Community market with identical rules. It appeared that the EU became the most important exports market for Lithuanian agricultural products and foodstuffs. In the mean time, exporters of Lithuanian agricultural products and foodstuffs were consistent in seeking to strengthen their positions in the Russia market, although they were continuously faced with the problem of the market closure on political grounds. In 2008, Lithuanian exports to Russia amounted to 16%, but later they shrank year by year. After the embargo imposed in August 2014, this market was down to 7.3% of total exports of Lithuanian agricultural products and foodstuffs.

Sustainability. Upon Lithuanian accession, the CAP was putting increasing emphasis on the importance of sustainable development in agriculture. In agricultural policy, sustainable development meant that, alongside the dimension of the economics, an important task of the CAP is not only to address food security issues or pursue the objectives of international trade by focusing support on the interests of the exporters, but also to contribute to finding solutions to environmental and social challenges in rural areas. The EU regulations placed particular emphasis on environmental issues, including possibilities to support environmentally friendly methods of farming and measures to protect biodiversity, and compensatory payments for lost income. An extensive list of environmental measures was included in the programmes implemented in Lithuania. However, in 2004 through 2014, the most notable progress in the implementation of the European environmental protection objectives was made through promotion of organic farms and increase of agricultural land areas for organic farming. One of the main reasons why this measure proved to be so popular among farmers was its consistency with the objectives of the growth of organic output and promotion of competitiveness - the support boosted the comparative advantages of organic production over traditional farming. This led to a significant increase in large farm involvement in the process of organic farming. In 2014, the average organic farm size was 68.3 ha, compared to 36.5 ha in 2004. The numbers of organic farms and areas certified in organic farming were experiencing exceptional growth. In 2014, Lithuania had 2,457 organic farms – 2.1 times up from 2004, when 1,178 farms, including fish farms, were engaged in organic farming on 43 thousand hectares. This was a 2.1-time increase in the number of farms and a 3.9-time increase in the farm area, which came up to 167.5 thousand ha.

The sustainable development ideas entrenched in the CAP meant a shift from the objectives of productivity and competitiveness to the priorities of improving farm viability and reduction of farming risks. The agricultural sector ranks among higher risk businesses since apart from commercial and financial risk factors agricultural performance is also affected by natural conditions. In order to reduce risks, the CAP proposed risk management techniques including diversification and insurance of activities, loan guarantees, etc. However, in Lithuania there was only a marginal use of those tools compared to the productivity and competitiveness promotion measures. For instance, a new system of managing farmers' economic risks resulting from natural causes was launched in 2007. Farmers were encouraged to earmark a percentage of their revenues for insurance so that they could get coverage in the event of a loss. Furthermore, they were entitled to have their insurance premiums partly covered by the State. In 2013–2014, insured crops accounted for only 212 thousand ha or 7.6% of the total declared crop area in 2014. The low degree of the use of risk management measures among the farmers was influenced by the fact that the payments received by the farmers

substantially reduced income fluctuations, catered for sustained farm revenues, and turned agriculture into a profitable business even in an unfavourable year. The business risk reducing policy role strengthened in 2004, as the launch of the EU support instruments in Lithuania triggered a rapid growth in different payments from the EU and national funds to agricultural entities. According to the data on agricultural accounts, in 2004 through 2014, the annual amount of payments went up from EUR 174.3 million to EUR 449.2 million or 2.6 times. In 2004 through 2014, the growth rate of agricultural factor income (a macroeconomic indicator of the total of agribusiness revenue, wage costs, and payments) in Lithuania was way ahead of the average growth of this indicator in EU-27 (the comparison includes only the states, which were the EU members in 2004). According to Eurostat data, the average growth of this indicator in EU-27 over the said period was only 10%. Lithuania had the fastest-growing agricultural factor income in the EU - even 2.3 times. Similar trends were also observed in other new EU states, e.g. in Estonia and the Czech Republic the factor income increased 1.8 times, in Poland – 1.9 times, and in Slovakia - 1.6 times. The rapid growth in the new Member States can be explained by extremely low farmers' income levels before the accession. Factor income per one agricultural worker in full time unit grew even faster - 2.6 times. Only Estonia enjoyed a faster growth rate. Here the factor income per worker increased 3.2 times. In Lithuania the growth of this indicator was driven by the drop in agricultural employment. According to Eurostat data, in 2004 the average number of agricultural workers came up to 165.4 thousand, whereas in 2014 this number dropped to 88.8% of the number of workers in the year of accession, i.e. to 147.0 thousand.

Sustainable development in agriculture is not possible without new developments in the farming community. The social aspect of sustainable development in agriculture became highly relevant due to the demographic challenges in the rural areas. Therefore measures for encouraging the younger generation to get involved in the agricultural sector were included in the CAP. Young farmers were also strongly supported in Lithuania. The data of the agricultural census of 2003 and farm structure analysis of 2013 allow for an analysis of the changes in the demographic structure of the farmer population over the decade and the achievement of the objectives of sustainable development in agriculture from the social perspective. The comparison of the structure of the farmer population in full time unit in 2003 and 2013 reveals that the share of persons under 44 in the total number of workers increased from 45.9% to 48.6%; however, the numbers of young farmers followed the decrease in the absolute number of workers. Over the 10-year period, the number of workers under 44 reduced by more than a fifth or 21.5%. One of the reasons behind this process was the fact that the support received by some small and medium commercial farms was insufficient to upgrade the production cycle and to boost viability. Due to the support model promoting income stratification, the CAP measures only had a limited impact on poverty reduction among rural population. The data of the Department of Statistics show that a rapid increase in the volumes of direct payments, which serve as a measure of farmers' income support, the poverty indicators in rural areas went much higher than the average in Lithuania. In 2013, the poverty risk gap in rural areas was 26.3%, compared to 28% in 2007. In 2013, the at-risk-of-poverty rate before social transfers (pensions excluded) was 42%, compared to 38.5% in 2007. Since agriculture remains to be an important employer for rural population, the poverty indicators show that the EU support has spread very unevenly among rural households and it had only a limited impact on sustainable social development in agriculture.

**Summary.** Analysis of the achievements of the agricultural and agri-food sector in the framework of the objectives of the CAP over the decade of the Lithuanian membership demonstrates that the growth of both the agricultural production and export was driven by the use of support instruments for productivity and competitiveness promotion. In this period there was shift in the orientation of the Lithuanian agriculture: in the output structure the share of livestock production kept shrinking and the share of crop production, cereal and rapeseed growing in particular, was increasing. The model of direct payments implemented in Lithuania in 2007 through 2013 prompted agricultural producers to opt for less capital and labour intensive production per one hectare of agricultural land. The new orientation in specialisation was not based on the comparative advantages of Lithuania but rather evolved as an additional support effect and consequently the income of agricultural producers and exports of foodstuffs became dependant on the support model, while the business risk increased.

Now Lithuania is entering the second decade of its membership in the EU with an upgraded CAP. Owing to the reinforced requirements to put in place economic, environmental, and social risk mitigation measures imposed by the EU, the new support model enables Lithuania to boost the sustainability of the agricultural sector. Furthermore, the CAP gave the countries more responsibility in choosing the most suitable means for these objectives to be achieved. The experience of the first decade of the EU support in agriculture showed that due to insufficient focus on risk management increasing production volumes fail to cater for sustained farm revenues and can result, inter alia, in losses if the level of demand reduces. Therefore increasing sustainability of agriculture means efforts to cater for sustained farm revenues and the ability to diversify risks in the long term.

### 2. Gross agricultural output

According to the preliminary data of the Department of Statistics, the gross agricultural output produced in 2014, if calculated at the current prices of the period, amounted to EUR 2.35 billion, i.e. by 7.7% less than in 2013. This was due to the reduced purchase prices for the major part of agricultural products. Within the entire period under analysis, the crop output comprised the larger portion of the gross agricultural output value as compared to livestock output. This share that went on increasing until 2012, in 2014, as compared to 2013, decreased by 0.2 percentage points (Table 1.2), and in comparison with 2012 – even by 5.5 percentage points.

Table 1.2. Structure of gross agricultural output\* in 2010-2014

Outrout	2010	)	2011		2012		2013		2014**	
Output	EUR mill.	%								
Total	1850,2	100	2354,0	100	2711,2	100	2548,7	100	2352,9	100
crop output	1006,8	54,4	1397,5	59,4	1752,1	64,6	1512,0	59,3	1390,6	59,1
livestock output	843,4	45,6	956,6	40,6	959,1	35,4	1036,7	40,7	962,3	40,9

<sup>\*</sup> At current prices. \*\* Preliminary data.

Source: Data of Statistics Lithuania..

The value of crop output in 2014 at the current prices of the period, as compared to 2013, was by 7.7% lower. This was conditioned by the decreased prices for rapeseed and grain crops (by 16.0% and 14.8%, respectively). The crop output value reduction was also impacted by the 9.0% decreased yield of rapeseed resulting from 17.0% smaller harvested area.

The value of livestock production in 2014, as compared to 2013, got reduced by 7.2%. This was owing to the decreased purchase prices for cattle, milk, pigs, poultry and eggs (12.0%, 11.4%, 11.3%, 6.9% and 6.0%, respectively).

At estimating the gross agricultural output by counties, the highest share of crop output in 2013 was found in Šiauliai, Marijampolė and Kaunas counties (69.8%, 66.9% and 61.3%, respectively), and lowest in Vilnius, Tauragė and Utena counties (44.5%, 49.1% and 50.1%, respectively). The highest growth in the share of crop output in 2013, as compared to 2009, was fixed in Telšiai, Klaipėda and Kaunas counties (by 5.3, 3.8 and 3.2 percentage points, respectively), whereas in Utena, Tauragė and Panevėžys counties this share got decreased (by 3.5, 1.8 and 0.1 percentage points, respectively).

The gross agricultural output if calculated at constant prices increased by 5.6%. Upon analysis of the 2010–2014 period, it is seen that in 2010, in comparison with the previous years, the reduction in crop and livestock output was highest, by 17.4% and 8.6%, respectively. Its highest increase was in the year 2012. Crop output in 2014, as compared to 2013, increased by 7.5%, whereas growth in livestock output was somewhat lower – by 2.8%.

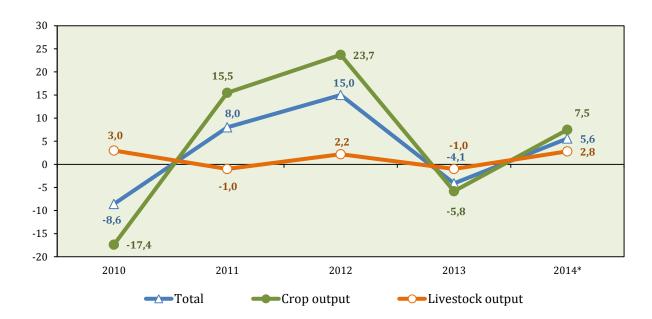


Fig. 1.6. Changes in gross agricultural output\*\* in 2010-2014\*\*\*, per cent

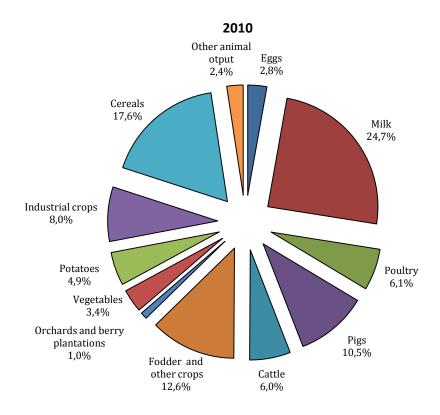
Source: Data of Statistics Lithuania..

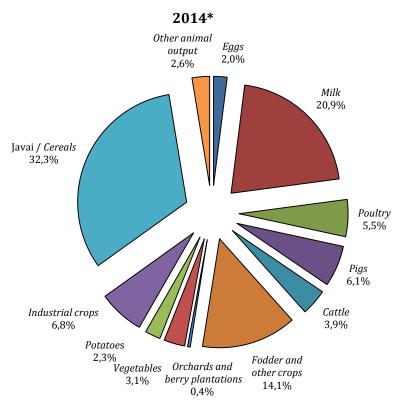
In 2010, the highest share of the gross agricultural output in Lithuania consisted of milk (24.7%), while in 2014– grain crops (32.3%) (Fig. 1.7).

<sup>\*</sup> Preliminary data.

<sup>\*\*</sup> At constant prices.

<sup>\*\*\*</sup> Compared to the previous year.





<sup>\*</sup> Preliminary data.

Fig. 1.7. Structure of gross agricultural output in 2010 and 2014  $\,$ 

Source: Data of Statistics Lithuania.

In 2014, as compared to 2010, the share of cereals and fodder crops increased most of all in the gross agricultural output structure (by 14.7 and 1.5 percentage points, respectively), whereas the share of pigs and milk decreased most considerably (by 4.4 and 3.8 percentage points, respectively). The negatives changes in the pig-breeding sector were much impacted by low purchase prices for pigs and problems relating to the implementation of environmental requirements. The main reasons for negative tendencies in the dairy sector are low purchase prices for milk and relatively lower direct payments as compared to crop products.

The gross agricultural output structure in the EU varies from country to country. All the EU countries as to the gross agricultural output structure may be divided into three groups. The first group consists of the countries where livestock production is prevailing (e.g., Ireland, Denmark), the second group – countries where the share of crop and livestock output is almost equal (e.g., Poland, Germany), the third group – countries where crop output is predominant (e.g., Romania, Greece). Lithuania is listed in the third group. It is notable that at the beginning of the period under analysis the crop output in Lithuania made up the gross output share that was lower by 4.7 percentage points. In 2014, the crop output share was similar to that in France and Slovakia (Table 1.3).

Table 1.3. Structure of gross agricultural output in EU countries in 2010 and 2014

		2010			2014	
Country	crop	livestock	gross agricul-	crop		gross agricul-
dountry	output,	output,	tural output,	output,	output,	tural output,
	%	%	EUR/ha UAA	%	%	EUR/ha UAA
Ireland	28,4	71,6	1073	25,9	74,1	1403
Denmark	38,2	61,8	3438	33,7	66,3	3746
Finland	38,0	62,0	1590	37,6	62,4	1740
United Kingdom	40,1	59,9	1274	39,8	60,2	1738
Malta	41,8	58,2	10360	40,8	59,2	10412
Belgium	47,1	52,9	5655	42,0	58,0	5918
Austria	48,6	51,4	1974	45,4	54,6	2191
Luxembourg	44,5	55,5	2276	46,7	53,3	3129
Estonia	46,2	53,8	633	47,2	52,8	863
Sweden	49,1	50,9	1543	48,9	51,1	1770
Germany	51,7	48,3	2637	48,9	51,1	2944
Poland	52,3	47,7	1326	49,3	50,7	1543
Cyprus	49,6	50,4	5521	51,4	48,6	5874
Slovenia	54,4	45,6	2255	51,6	48,4	2345
Netherlands	57,4	42,6	11758	53,4	46,6	12895
Latvia	55,3	44,7	478	54,2	45,8	618
Portugal	58,4	41,6	1674	56,8	43,2	1728
Slovakia	51,9	48,1	883	58,5	41,5	1053
Lithuania	54,4	45,6	683	59,1	40,9	905
France	62,9	37,1	2239	59,6	40,4	2392
Spain	64,5	35,5	1635	60,2	39,8	1706

		2010			2014			
Country	crop	livestock	gross agricul-	crop	livestock	gross agricul-		
Country	output,	output,	tural output,	output,	output,	tural output,		
	%	%	EUR/ha UAA	%	%	EUR/ha UAA		
Italy	63,9	36,1	3088	61,7	38,3	3362		
Hungary	61,5	38,5	1206	62,7	37,3	1551		
Croatia	62,1	37,9	2089	64,4	35,6	1690		
Bulgaria	66,6	33,4	723	69,6	30,4	798		
Greece	71,1	28,9	2752	72,3	27,7	2704		
Romania	74,0	26,0	1049	73,8	26,2	1114		

Source: Data of Statistics Lithuania.

In 2014, Lithuania's gross agricultural output per 1 ha UAA was among the lowest in the EU. Compared to Denmark where conditions are similar, this indicator was lower by more than 4 times. This was due to the purchase prices for agricultural products that were lower than in other countries. In 2014, the highest gross agricultural output per 1 ha UAA was in the Netherlands, Malta, Belgium, and Cyprus. These countries utilised rationally their natural and industrial resources, selected priorities according to their competitive advantages and situation on the market.

Procurement volumes and prices for agricultural products as well as prices of material resources necessary for their manufacture have the strongest impact on the volumes of the gross agricultural output. The volume and structural changes of the agricultural production in Lithuania were also determined by the ever changing market conditions. Volumes of separate purchased agricultural products during the period of 2010–2014 varied unevenly. In 2014, in comparison with 2013, purchase of fruit and berries decreased by 24.9%, rapeseed by 19.0%, potatoes by 8.9%, whereas grain and vegetables increased by 9.7% and 1.8%, respectively. Volumes of purchased animals and livestock products in 2014, as compared to 2013, increased. Purchased milk, as well as animals and poultry (live weight) increased by 7.2% and 2.6%, respectively. These changes to a great extent were influenced by the prices of agricultural products and resources required for their production.

Price index variation tendencies for agricultural products and resources required for their production somewhat differed within the period of 2010–2014. The highest price indexes on crop and livestock products as well as on inputs were in 2011. The lowest purchase price indices for crop and livestock products were in 2014, and the price index for inputs was lowest in 2013. In 2014, as compared to 2013, prices for crop and livestock products reduced by 15.0 and 9.9%, respectively, and prices of inputs dropped by 3.1%. These price index variations during the period of 2010–2014 predetermined the disproportion (the so-called price scissors) between the purchase price for agricultural products and price of inputs (Table 1.4).

Table 1.4. Price indices of agricultural products and inputs in 2010-2014, per cent

Indicators	2010	2011	2012	2013	2014
Price scissors	110,5	103,9	91,7	108,5	90,7
Purchase price indices of agricultural products					
total	116,6	123,8	99,5	102,5	87,9
crop products	122,6	137,5	97,1	97,1	85,0
livestock products	112,4	113,3	101,7	107,2	90,1
Price index of inputs	105,5	119,1	108,5	94,5	96,9

<sup>\*</sup> Compared to the previous year.

Source: Data of Statistics Lithuania.

Over the entire period of 2010–2014, the year 2010 was most favourable for agricultural producers, and the years 2012 and 2014 were most unfavourable. The year 2014 was unfavourable either for crop or livestock producers, even though price scissors were bigger in the crop production sector. Purchase prices for crop products dropped to a greater extent than for animal products.

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

The goals, pursued by the CAP, are to increase agricultural productivity by promoting technical progress and by ensuring the optimum utilisation of the factors of production, in particular labour force, to ensure a fair standard of living for the agricultural community, to stabilise markets, to assure the sufficient supplies, and to ensure the acceptable prices for consumers. To achieve these goals, aid to agricultural entities is granted from the EU and national budget. In 2014, part of the funds, allocated for funding of agriculture, made up EUR 875.1 million, i.e. by 6.5% less than it was allocated in 2013 (EUR 936.3 million).

**Direct payments.** Since 2004 a scheme of single direct payments for areas has been applied in Lithuania. This is a support scheme under which direct payments are paid for the owned utilised agricultural area, animals and quota milk. In 2014, like in 2013, direct payments in Lithuania were paid from the European Agricultural Guarantee Fund (EAGF) and from the national budget by paying the transitional period national support (TPNS) payments. In 2014, share of EAGF funds, allocated for Lithuania's direct payments accounted for 92.3% (EUR 393.2 million), paid – EUR 378.0 million (Fig. 1.8.). If compared to 2013, part of the allocated EAGF funds increased by 3.4%, and the paid amount dropped by 18.2%.

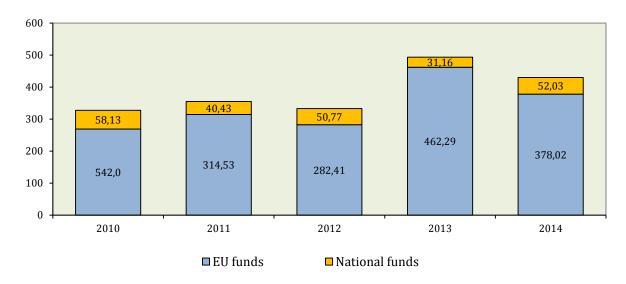


Fig. 1.8. Funds for direct payments in 2010-2014, EUR million

Source: Data of the National Paying Agency.

In 2014, the share of TPNS paid for animals and UAA declared in 2013 and earlier years amounted to EUR 52.0 million, i.e. by 67% more than in 2013 (EUR 31.2 million).

The TPNS amount intended to be paid for animals and UAA declared in 2014 constituted EUR 32.9 million, i.e. by 3% less than the TPNS funding allocated in 2013.

In 2014, the size of the basic direct payments paid to the applicant for UAA (irrespective of the plant type) amounted to 114.4 EUR/ha, i.e. by 12.6% less than in 2013 (in 2013 – EUR 130.9). Such decline was predetermined by redistribution of basic direct payments. Since 2014 while redistributing the funding allocated for basic direct payments "first hectare" payments were paid additionally. Redistribution payments ("first hectare" payments) are the element of support in a direct payment scheme, intended to support smaller farms by their UAA. In 2014, a complementary payment – 30.8 EUR/ha (Table 1.5) – was paid for the first time to Lithuanian farmers for the first 30 ha of UAA. A limit of 30 ha was established by the Ministry of Agriculture of the Republic of Lithuania, in consideration of the fact that the number of farms in Lithuania with an area of 30 ha or less is constantly decreasing due to insufficient profitability.

Table 1.5. Direct payments in Lithuania in 2010–2014

Kind of payment	2010	2011	2012	2013	2014
EU budget payments					
basic payment, EUR/ha	98,8	107,2	117,0	130,9	114,4
payments on the first hectares, EUR/ha	-	-	-	-	30,8
quota sugar payment, EUR/t	99,6	99,6	99,6	99,6	99,6
special milk support, EUR/t	-	-	-	-	9,2
beef cattle payment, EUR/head	-	123,4-158,1	148,0-187,7	128,0-162,5	86,5-109,8
sheep (meat breeds) payment, EUR/head	-	11,0-19,4	11,0-19,7	9,0-15,9	6,3-11,1

Kind of payment	2010	2011	2012	2013	2014				
Complementary national direct payments for production*									
grain crops, rape EUR/ha	17,4	9,6	-	2,9	-				
protein crops, EUR/ha	29,0	21,7	13,0	13,0	13,0				
fibre flax, EUR/ha	71,5	62,8	43,4	43,4	44,0				
perennial herbs for seed and fodder crop mix, EUR/ha	17,4	9,6	-	-	-				
suckler cows, EUR/head	170,9	115,8	89,8	89,8	87,0				
bulls, EUR/head	157,3	157,3	173,8	231,7	173,0				
bull production extensification, EUR/head	14,5	-	-	8,7	-				
slaughtered adult cattle, EUR/head	61,7	8,7	-	8,7	-				
ewes, EUR/head	13,9	11,6	11,3	7,5	5,8				
quota milk, EUR/t	25,2	20,3	20,3	18,8	15,1				

<sup>\*</sup> Total sum of coupled and decoupled payments.

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

To avoid the breach of the TPNS procedure that was coordinated with the European Commission (EC) and to maintain the permissible support level in the livestock sector with the national funds, a decision was taken to discontinue payments for grain crops declared in 2014. Slaughtering and bull extensification payments were also abolished. In 2014, as a result of the reduced TPNS share (reduced in consideration of the maximum limits of TPNS payments for agricultural production as established by the EC) payments for animals and quota milk dropped. However, from 2014, in order to give a more considerable support to dairy farms in Lithuania, the coupled specific support for milk (in 2014, 9.2 EUR/t), coordinated with the EC, was granted. In 2014, the specific support scheme for beef cattle and sheep of meat breeds was continued.

Beef cattle keepers meeting the requirements for payments under a specific support scheme were additionally paid from EUR 86.5 to EUR 109.8 per head and keepers of sheep of meat breeds were guaranteed an additional payment from EUR 6.3 to EUR 11.1 per head (Table 1.6).

Table 1.6. Direct payments for beef cattle and sheep of meat breeds in Lithuania in 2014

Beef cattle groups by number of heads	Payment, EUR/head	Sheep of meat breeds groups by number of heads	Payment, EUR/head
1-5	109,8	1–50	11,1
6-50	105,9	51-100	7,8
51-100	97,9	101–150	7,2
101-150	94,1	>150	6,3
>150	86,5		

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

Fluctuations in payments were conditioned by the principles for distribution of payments under the specific support scheme – payments are differentiated by the number of animals in the farm, i.e. the larger number of meat animals the lower average payment per head.

2014 was the last year in implementing the specific support scheme for beef cattle and sheep of meat breeds and the only year of specific support payment for milk. The first hectare support that took start in 2014 is planned to be maintained until the year 2020. This new support element in the direct payment scheme is of special importance for agricultural entities engaged in the smaller farms by UAA.

**Market regulation measures.** In Lithuania since 1998 the agricultural and food market regulation and export promotion measures, namely, product manufacture quotas, intervention purchases, private storage, consumption promotion and export refund payments, have been implemented.

While carrying out obligations to the WTO, Lithuania, as a member of the EU, ensured the abolition of the forms of export subsidies (direct export subsidies, export credits, etc.) until the end of the year 2013. The last export refund payments in Lithuania were paid in July 2013. In 2014 export was promoted by supporting trademarks, popularising regional products and encouraging export of products manufactured at Lithuanian enterprises by electronic communication means, presenting products of Lithuanian origin at international exhibitions, etc.

Since 2010 no applications have been submitted in Lithuania for intervention purchase of products as market prices during the period of 2010–2014 were higher than the established intervention prices.

Private storage services in 2014 were used more intensively than in 2013 (in 2013 it was just 346 t of butter that was left for storage). In 2014, not only butter (119 t), but also skimmed milk powder (2841.4 t) and cheese (170.1 t) were under storage. Even though products under storage were more numerous, the paid support amount, as compared to 2013, has not changed and constituted EUR 18.9 thousand. Financing of this measure is performed from the EU funds

Lithuania is one of the first EU countries where the implementation of the measure – support with food products – has been started. The implementation of the EU Programme of Food Distribution from Intervention Stocks to the Most Deprived Persons of the Community got stuck in 2014 due to the adjustment of support distribution procedures in the new financial period. Only in May 2014 the food distribution to most deprived persons in Lithuania was effected. The Programme support was funded from the state budget funds alone (EUR 469.5 thousand allocated). The EC funds for the programme implementation are foreseen only for the year 2015. These support funds were used for acquisition of food products and they were distributed to 224 thousand people.

With an aim to improve eating habits of children and juveniles, to promote the consumption of dairy products on the domestic market and to reduce a disbalance on the dairy product market, the support programme "Milk for Children" is being implemented in Lithuania. In 2014, 1617 educational establishments benefited from the support programme measure "Milk for Children", the number of supported children amounted to 218.7 thousand, i.e. by 0.7% more than in 2013 (217.1 thousand). For

implementation of this measure in 2014 EUR 3.1 million was paid out, by almost half as less than in 2013 (EUR 5.6 million), including the share from the EU funds accounting for 11.3%.

In the school year 2013–2014, 1387 educational establishments participated in the programme "Promoting of Fruit Consumption at Schools". In September–November 2013, oranges, bananas, apples, pears, and carrots, as well as of exceptional quality and organic apples, pears and carrots were distributed to children in pre-school establishments and primary schoolchildren in general education schools. From 1 December 2013 to 31 May 2014, with the programme administration rules having changed, only of exceptional quality and organic apples, pears, carrots and juice or their mixtures were distributed to children. During the 2013–2014 school year, 2665.3 thousand kg/l of fruits, vegetables and juice were distributed to children. The amount of EUR 2.9 million was paid for fruits, vegetables and juice distributed to children (by 49% more than in the 2012–2013 school year), including 50.1% from the EU funds.

Due to the adjustment of the support distribution procedures for the new financial period of 2014–2020, some part of the EU funds did not reach Lithuania. In 2014, EUR 11.9 million was spent for funding of market regulation measures in Lithuania, i.e. by 36.4% less than in 2013 (EUR 18.7 million) (Fig. 1.9). The share of EU funds in 2014 consisted of EUR 5.2 million, i.e. less by half than in 2013 (EUR 10.8 million).

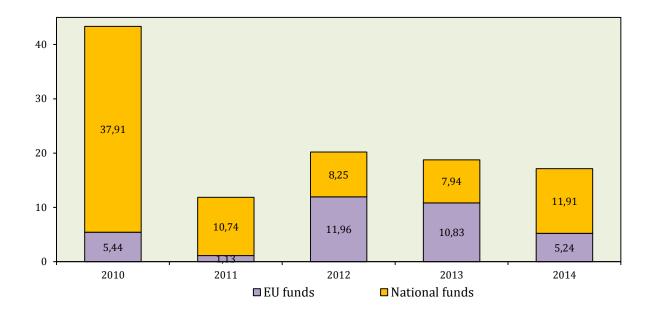


Fig. 1.9. Funds for market regulation measures in 2010–2014, EUR million *Source: Data of the National Paying Agency.* 

With the funding for market regulation measures from EU funds reduced, the national funds in 2014 increased by 50%, if compared to 2013 (EUR 7.9 million) and comprised EUR 11.9 million.

**Rural development measures.** The 2007–2013 Rural Development Programme (RDP) of Lithuania, according to which the investment and compensatory support to agriculture and countryside was distributed, also continued in 2014. That year the earlier obligations were further fulfilled and calls were announced with regard to the not utilized financial resources, intended for the 2007–2013 RDP period.

Upon the completion of the 2007–2013 programming period, also including the year 2014, almost 929.1 thousand of applications were collected, of which 97.1% was approved. The support amount requested reached over EUR 2946 million, whereas support approved amounted to EUR 2286 million. Until the end of the year 2014, around 93.6% of the total 2007–2013 RDP approved support has been already paid out (Fig 1.10).

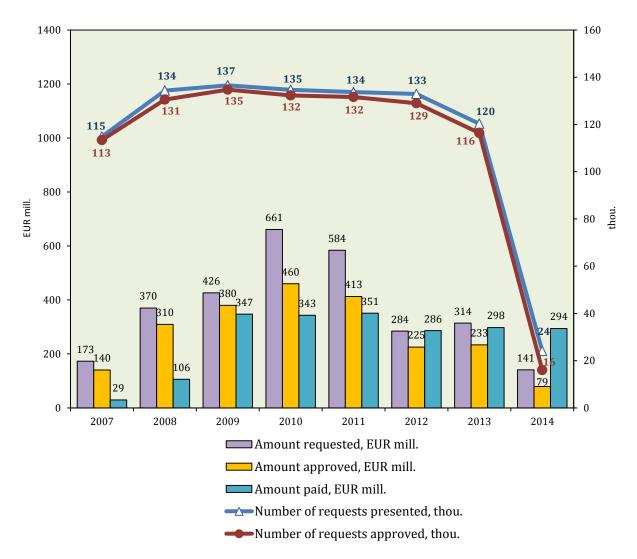


Fig. 1.10. Funds for RDP measures and numbers of requests in 2007–2014

 $Source: \ Data\ of\ the\ National\ Paying\ Agency.$ 

According to the National Paying Agency data, measures for strengthening the competitiveness of the agricultural sector from the very 2007 were distinguished from the measures devoted to the rural development as to their popularity. Quite a lot of applications were received, and the approved investment projects were timely and smoothly implemented. For implementation of the measures under RDP Axis 1 "Improving the Competitiveness of the Agricultural, Food and Forestry Sectors", the most substantial support was granted – EUR 1.2 billion. During 2007–2014 under this Axis 144.2 thousand of applications were approved and the support amount requested reached more than EUR 1 billion.

Within the entire RDP implementation period, of the RDP measures of Axis 1, "Early Retirement", "Modernization of Agricultural Holdings" and "Semi-subsistence Farming" may be distinguished. Most applications (114.4 thou.) were received under the measure "Early Retirement".

In 2014, the structure for funding of the RAP measures differed slightly from the previous years; the limited funds (the 2007–2013 RDP funding balance) decreased the scale of financing of the RAP measures.

In 2014, 4680 applications were collected under Axis 1, and support requested amounted to EUR 29.4 million. Young farmers were most active in submitting applications. 462 applications were submitted under the RDP measure "Setting up of Young Farmers", and the amount of support requested reached EUR 17.8 million.

During the eight years of the RDP implementation the applications submitted under RDP Axis 2 compensatory measures for improvement of environment and landscape were most numerous (82.1% of the total collected applications). Compensatory payments under these measures were paid for certain restrictions of activities. In 2014, applications were not collected under the RDP Axis 2 measure "Payments to Farmers in Areas with Handicaps, Other than Mountain Areas", which in the earlier years have made the major part of applications, submitted under Axis 2 measures. With regard that only 16.5 thousand applications were submitted in 2014 under the axis in question, i.e. by 83.3% less than in 2013, the amount of the requested support reached EUR 71.9 million. In 2014 other RDP Axis 2 measures were financed in the similar way as in the previous years.

Within the whole period EUR 310 million of support funds was allocated to implement the measures under RDP Axis 3 "The Quality of Life in Rural Areas and Diversification of the Rural Economy", 17.6 thousand applications were submitted, of which 13.7 thousand applications were estimated positively. The requested amount reached EUR 249.9 million. The opportunity to replace asbestos roofs gained high popularity among the rural residents. In 2014, 2.6 thousand applications were submitted according to the activity area "Replacement of Asbestos Roofs" under the RDP Axis 3 measure "Village Renewal and Development", and the requested support amount reached EUR 5.3 million.

Special interest during the entire RDP implementation period was accorded to the RDP investment measure "Support for Business Creation and Development". The total requested support amount according to the applications approved under the said measure (533 of 1336 submitted applications) reached EUR 103.2 million. This measure gained popularity in 2014 as well. A total of 222 applicants showed interest in the opportunity to start or develop their business in the countryside, and the requested support amount reached EUR 26.4 million. However, due to the limited financial

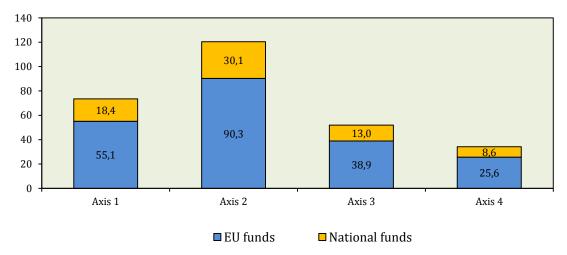
opportunities, only 27 applications were approved, the support amount – EUR 3.2 million.

For implementation of the measures under RDP Axis 4 "Measures Implemented by LEADER Method" EUR 140.9 million was allocated in total. The major part of support (EUR 125.7 million) was approved under the RDP measure "Implementation of Local Development Strategies". The local action groups prepared successfully local activity strategies according to this measure and currently are implementing them with success. Local action groups while guiding the implementation of the strategy announce independently calls for submission of local projects, assess the eligibility of these applications for support and administer the implementation of the financed projects. The majority (about 2.6 thou.) of the community projects have already been completed. Infrastructure improvement projects took the lead: community houses and public spaces were put to order; quite a lot of water management projects were implemented.

LEADER method is implemented by all measures under RDP Axis 3. Over the period of 2007–2014 the rural communities submitted applications for local projects most numerously (1.9 thou.) under the RDP measure "Village Renewal and Development" by LEADER method. In 2014, calls for submission of applications under RDP Axis 4 "Measures Implemented by LEADER Method" were not announced.

The year 2014 while implementing the RDP measures was also notable for the systemized information on the recreation infrastructure objects installed in private forests, which were created using the support funds under the measure "Non-productive Investments in Forests" and which may be used free and without payment by the public. Sites of the projects, implemented according to the aforementioned measure, were designated on a map, which is displayed on the website of the National Paying Agency.

In 2014, a total of 24,000 applications were submitted, i.e. by 81.4% less than on the average over the RDP period of 2007–2013. The requested support amounted to EUR 141.2 million, whereas the approved support amount in 2014 was by 44% less than it was requested. In 2014, EUR 280 million of support was paid (according to Axis 1 measures EUR 73 5 million, Axis 2 – EUR 120.4 million, Axis 3 – EUR 51.9 million and Axis 4 – EUR 34.2 million). Payments from the EU budget funds amounted to EUR 209.9 million, from the national budget EUR 70.1 million (Fig. 1.11).



 $Fig.\ 1.11.\ Funds\ for\ rural\ development\ measures\ in\ 2014,\ EUR\ million$ 

Source: Data of the National Paying Agency.

The major portion of support in 2014 was paid in Vilnius, Kaunas and Panevėžys counties – EUR 44.8 million, EUR 37.8 million and EUR 35.4 million, respectively, the least amount in Marijampolė County – EUR 16.7 million. In 2014, like in 2013, the majority of applications was submitted in Utena, Vilnius and Panevėžys counties – 2.7, 3.6 and 2.3 thousand, respectively, the least number in Marijampolė County – about 0.9 thousand.

**State aid.** To develop the competitive and effective agriculture and food sector, to improve the quality of agricultural production and food products, the State aid measures are implemented in Lithuania. The funds from the national budget are allocated for implementing these measures. In 2014, like in 2013, the following State aid measures were funded from the said funds: biofuel production, compensation of part of insurance premiums for agricultural activity entities, livestock pedigree breeding, animal by-products handling, safeguarding of certified national heritage products, promotion of manufacture, popularization and sales of qualitative agricultural and food products, development of agricultural consulting, science and training system, organization of international and national exhibitions, professional, cultural and educational events, etc.

Traditionally, the major share of the aid was paid under the measure "Support to the Development of Biofuel Production", in 2014 – EUR 11.5 million (50% of the 2014 total funding of the State aid measures), i.e. by 49% more than in 2013 (EUR 8.6 million). Such enhancement of support was partly conditioned by the obligations of the earlier years. Under the above-mentioned measure which is targeted to promote biofuel production and use of agricultural production for the needs other than food, the State aid is granted by compensating part of the price for rapeseed and cereals purchased for the production of rapeseed oil and dehydrated ethanol.

In 2013, the number of farmers insuring crop areas got reduced. The same tendencies were also observed in 2014; therefore the State aid measure "Support for Compensating Insurance Premiums" was less popular than in the period of 2010–2012. In 2014, EUR 2.1 million of support was paid, i.e. by 16% more than in 2013 and about 2.5 times less than it was paid on the average in 2010–2012.

In 2014, farmers in Lithuania were further encouraged to breed high-valued pedigree animals and to improve their pedigree qualities and to increase animal productivity. During 2014, 13.9% of all the foreseen funds for the State aid measures, i.e. EUR 3.2 million (by 3.5% more than in 2013) were allocated to this measure (Fig. 1.12).

Aiming to utilize dead animals with fewer losses, agricultural entities use actively the State aid measure "Support for Handling of Animal By-products". In 2014, nearly EUR 2.8 million or around 12.3% of the funds foreseen for funding with the State-aid measures were paid under this measure.

In 2014, EUR 23.1 million, i.e. by 55.2% more than in 2013 (EUR 14.9 million), was paid for implementation of all State aid measures. Such enhancement of the funds, allocated for financing with the State aid measures, was owing to the obligations remaining after the fulfilment of the measure "Support to the Development of Biofuel Production" in the year 2013 and earlier years, the increased compensation percentage on the part of interest paid to the credit institution (from 30% to 80%) in order to reduce farmers' losses as a result of the ban to ship agricultural products from the EU countries to Russia, emergence of new measures, etc.

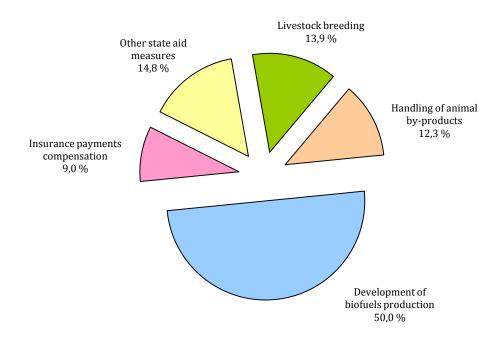


Fig. 1.12. Structure of state-financed measures in 2014

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

The year 2014 was made significant since a list of State aid measures was complemented with the support for compensation of losses suffered when carrying out the measures for elimination of foci of infectious diseases and measures for prevention of those diseases, amounting to EUR 82.3 thousand. A new support measure "Ensuring the Activity of Fishery Produce Auction" was also implemented and was aimed at creating favourable conditions for fishermen to sell their products (EUR 30 thou. was allocated).

Measures for promotion of the development of the fisheries sector. With a view of stimulating the development of the fisheries sector, its competitiveness increase, ensuring economic, environmental and social sustainability, saving and recreation of fish resources, the 2007–2013 Operational Programme for the Lithuanian Fisheries Sector has been implemented in Lithuania since 2007. Even though the programme period has been foreseen until the year 2013, applications were also collected in 2014. During the period of 2007–2014, the support funds for the Lithuanian fisheries sector were granted from the European Fisheries Fund and the national budget of the Republic of Lithuania. The paid support under the Operational Programme measures within the period of 2007–2014 reached EUR 56.2 million (77.9% of the funds, foreseen for the 2007–2013 programme), of which share of the EU budget accounted for 75.9%.

Seeking to achieve the common goal in the 2007–2013 Operational Programme for the Lithuanian Fisheries Sector, the measures under five priority axes were implemented. During 2014, under the Operational Programme measures (except for "Technical Support") 14 applications were submitted, i.e. by 3 times less than in 2013. Such a small number of applications were due to the low financing, since the major part of the goals foreseen in the programme was implemented within the years 2007–2013 (the goals of the first priority axis "Adaptation of the Marine Fishing Fleet" have been

implemented until 2011). In 2014, support funds, by 25.6% (EUR 9.7 million) less than in 2013 (EUR 13.0 million), were paid in Lithuania. Calls for applications under the 2014–2020 Programme for the Lithuanian Fisheries Sector are foreseen just from the year 2015.

In 2014, no applications were collected under the measures of the second priority axis "Aquaculture, Inland Fishing, Processing and Marketing of Fishery and Aquaculture Products", though the obligations of the previous years have been implemented. In 2014, under the measures of the second priority axis, EUR 4.3 million (Fig. 1.13) was paid, i.e. twice less than in 2013 (EUR 8.7 million). The most substantial support funds in 2014 were paid under the Axis 2 measure "Processing and Marketing of Fishery and Aquaculture Products", i.e. EUR 2.3 million (54.6% of the total funds foreseen under the measures of this axis in 2014).

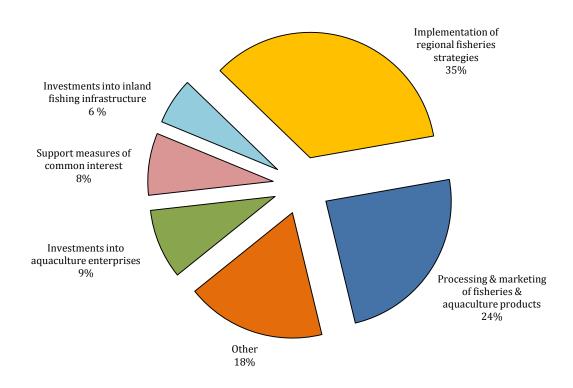


Fig. 1.13. Structure of fishery measures funding in 2014

Source: Data of the National Paying Agency

In 2014, under the third priority axis of the 2007–2013 Operational Programme for the Lithuanian Fisheries Sector "Measures of Common Interest" EUR 1.4 million was paid, i.e. by 10.7% less than in 2013 (EUR 1.6 million).

Under the fourth priority axis "Sustainable Development of Fisheries Areas", intended for local action groups in the fisheries areas, support funds were paid according to two measures: "Implementation of Strategies for the Development of Fisheries Areas" and "Regional and International Cooperation of Local Action Groups in the Regional Fisheries Areas" in 2014 constituted EUR 3.5 million (by 64% more than in 2013).

Under the Operational Programme measures 399 applications for support were submitted until the year 2015. The major part of applications within the said period was submitted under the priority Axis 2 of the Operational Programme "Aquaculture, Inland Fishing, Processing and Marketing of Fishery and Aquaculture Products" (196 applications).

In 2014, the 2007–2013 programming period of the Common Agricultural Policy came to an end. The year 2014 performed an important function in the transitional period, when striving to acquaint the agricultural entities with new opportunities, regulations, and possible challenges of the new programming period 2014–2020 of the Common Agricultural Policy, which will be implemented from 2015.

### 4. Economic entities in agriculture and food industry

**Agricultural entities.** According to the AIRBC data, the number of agricultural entities that declared UAA by categories changed unevenly within 2010–2014. Even though in 2014, as compared to 2010, the total number of the registered farmers' farms increased by 11.0%, the number of registered farmers who declared UAA within the aforementioned period increased by just 2.4%. In 2014 the farmers' farms who declared UAA accounted for 63.3% of the total number of the registered farmers' farms. During the said five years the number of agricultural companies and other agricultural entities who declared UAA increased by 41.7%, and farms owned by natural persons decreased by 31.7% (Table 1.7).

Table 1.7. Number of agricultural entities who declared agricultural area in 2010-2014

Agricultural entities	2010	2011	2012	2013	2014	Change 2014, compared to 2013, %
Registered farmer farms, thou.	72,0	72,5	73,2	73,4	73,7	0,4
Agricultural companies and enterprises	662	734	796	844	938	11,1
Households, thou.	99,2	94,0	85,5	76,8	67,8	-11,7

Sources: Data of the Register of Agriculture and Rural Business of the Republic of Lithuania. (The Register of Holdings) and Simplified Direct Payments Information System.

The average size of the farm according to the UAA declared by all agricultural entities in 2014 in Lithuania was 19.9 ha (Table 1.8), i.e. by 7.6% larger than in 2013 and by 27.6% larger than in 2010. In total, the agricultural entities in 2014 declared the farms by 5.7% less than in 2013, their declared area increased slightly – by 1.1%. Even though in 2014, as in the previous years, farms with UAA up to 5 ha constituted around half of the farms which declared UAA, their number in 2014 decreased by 8.4%. The number of such farms as compared to 2010 got reduced by 21.9 thousand, or by 23.8%.

A group of farms with 5.1-10 ha is reducing every year. Within the reference period, the number of farms in this group reduced by 16.6%, whereas their part in the structure changed insignificantly. In 2014, if compared to 2010, the number of farms in the groups from 10.1 to 20 ha and from 20.1 to 50 ha reduced correspondingly by 10.5 and 4.8%. However, in the structure of farms part of these groups increased slightly. During the reference period the number of farms increased in the groups of farms of 50.1-100 ha and 100.1-500 ha by 8.2% and 32.4%, respectively. In the group of the largest – over 500 ha – the number of farms and their share in the structure changed insignificantly within the years 2010-2014.

Table 1.8. Structure of farms by declared agricultural area in 2010-2014

Farm	201	10	20	11	201	12	20	13	20	14
size, ha	number, thou.	share, %								
≤ 5	92,1	53,6	88,8	53,1	82,7	51,8	76,6	50,8	70,2	49,2
5,1-10	37,4	21,7	36,3	21,7	34,8	21,8	33,6	22,2	31,2	21,9
10,1-20	20,9	12,2	20,6	12,3	20,1	12,6	19,0	12,6	18,7	13,2
20,1-50	12,6	7,4	12,2	7,3	12,1	7,6	11,8	7,8	12,0	8,4
50,1-100	4,9	2,9	5,1	3,0	5,3	3,3	5,3	3,5	5,3	3,7
100,1-500	3,4	2,0	3,8	2,3	4,1	2,6	4,3	2,8	4,5	3,2
> 500	0,4	0,3	0,4	0,3	0,5	0,3	0,5	0,3	0,5	0,4
All farms	171,8	100	167,3	100	159,5	100,0	151,1	100,0	142,5	100,0
Average	15	,6	16	,3	17	,5	18	,5	19	,9

Sources: Data of the Register of Agriculture and Rural Business of the Republic of Lithuania. (The Register of Holdings) and Simplified Direct Payments Information System.

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

Even though the average size of a farm within the past years is increasing in Lithuania, the farms, however, are smaller than in the neighbouring countries. In 2013, the farms in Latvia were on average 1.4 times larger than in Lithuania and in Estonia 3.1 times (Fig. 1.14). The Lithuanian farmers' farms were larger, on average, than farms in Poland and Slovenia. It should be noted that in all countries which submitted data the average size of a farm increased during the reference period.

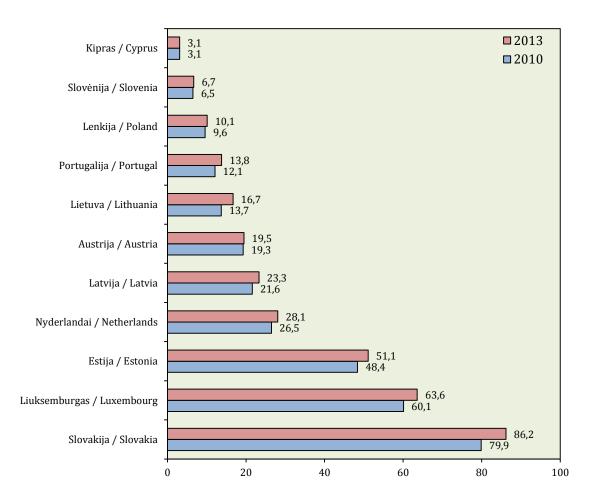


Fig. 1.14. Average farm size in some EU countries in 2010 and 2013, hectares

Source: Data of Eurostat.

According to the AIRBC data, by the end of 2014, the Register of Holdings held a record of 193.8 holdings. This was by 3.9% less than in the previous year. Reduction in holdings is conditioned by the fact that from 2011 at the beginning of each year the holdings not complying with the requirements of the law are selected and the removal from registration of the holdings the data thereof has not been renewed within the past three years is initiated.

As compared to 2013, the number of registered holdings reduced by 3.8%. Even though the number of holdings reduced, the area of holdings managed by the owners augmented by 1.8% to 2.93 million ha of the total land area, where their held UAA has also increased (reached 2.42 million ha). The average size of a holding in 2014 by total holding area constituted 15.1 ha, according to UAA – 12.5 ha. Holdings with UAA up to 5 ha constituted 65.1% of all the holdings (11.8% of all UAA). In 2014, as compared to 2013, the number of holdings of that size reduced by 4.7%. The number of holdings covering 5–20 ha and their held UAA got reduced by 2%. The number of holdings and UAA held in the group from 20 to 50 ha remained the same. In 2014, the number of holdings in the group of 100–300 ha increased by 3.7%, and UAA held here by 3.4%. In the group of over 300 ha the total number of holdings increased by 1.2% and the total

UAA reduced by 0.8%. In 2014, the largest holdings in the holding structure by number comprised 0.4%, and according to the UAA eld – 26.2% (Fig. 1.15).

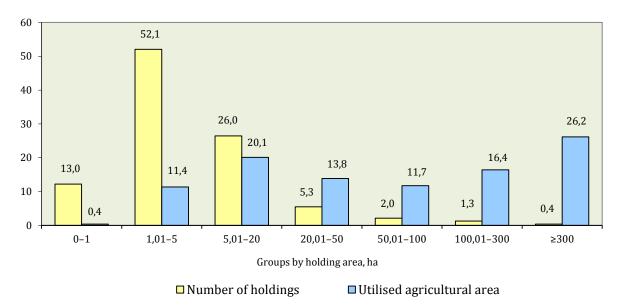


Fig. 1.15. Distribution of holdings and their agricultural area by group of different size in Lithuania in 2014, per cent

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

In the areas favourable for farming 56.2% of UAA in the total number of registered holdings is registered. In 2014, the age of 44.5% of the owners of all holdings was over 60. This tendency has also retained in the analysis of the number of holding owners by regions, where the share of owners over 60 in highly disadvantaged areas is highest, even 51.3%. Young farmers under 40 accounted for 12.5% of all the holdings in the country, their largest share in the areas favourable for farming standing at 12.9% (Table 1.9).

Table 1.9. Distribution of holdings by type of farming area and owners' age in 2014

Indicators		Areas						
indicators		highly disadvantaged	less disadvantaged	normal				
Number of holdings, %		11,1	40,8	48,1				
Area of holdings, %		7,0	36,8	56,2				
Average size of holding, ha	a	7,9	11,2	14,5				
v 1 61 11	< 40 y.	11,3	12,3	12,9				
Number of holding owners by age, %	40-60 y.	37,4	42,6	44,6				
owners by age, 70	> 60 y.	51,3	45,1	42,5				

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

More than half of UAA is managed by the owners of registered farmers' farms – 62.3% of all the owners of holdings. The number of registered farmers' farms in 2014 increased by 3.6%, as compared to 2013. Over the period of 2012–2014 the structure of farmers' farms by utilized land area has changed insignificantly in several groups – increased in the group of up to 3 ha, and reduced in the groups from 10 to 20 ha and from 20 to 50 ha. In Lithuania, farms utilizing from 3 to 10 ha of land (41%) prevailed, farms of up to 3 ha comprised 32%, and the largest farms accounted for 2% of the total farmers' farms (Fig. 1.16).

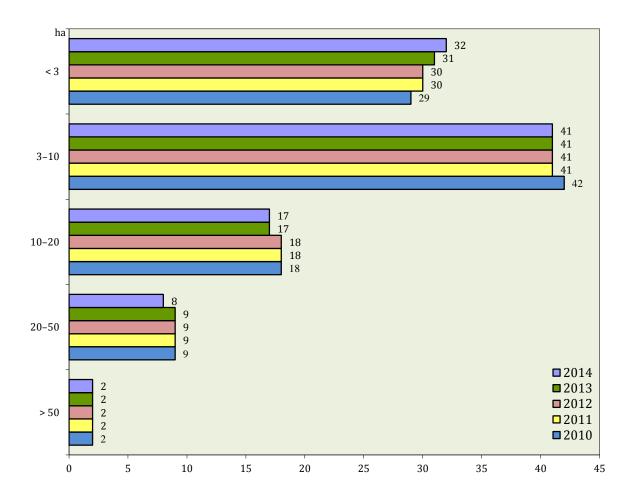


Fig. 1.16. Number of registered family farms by used land area in 2010–2014, per cent

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

The structure of registered farmers and holding owners by age was similar, as 40.6% of the registered farmers are at the age of retirement (over 62) and 16.6% – persons under 40, i.e. young farmers (Fig. 1.17).

The EU CAP measures have an impact on the farm restructuring process. In 2014, the National Paying Agency collected 72.4 thousand applications for the EU support under the rural development measures. The major part consisted of applications according to the measure "Compensatory Allowance per Hectare of Agricultural Land in Other Areas with Handicaps".

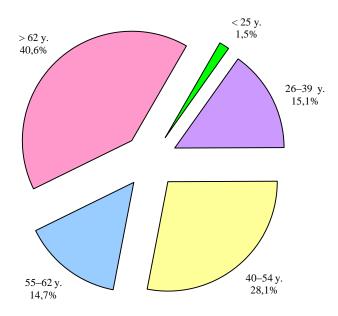


Fig. 1.17. Structure of registered farmers by age in 2014

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

In 2014, the certified organic production area in Lithuania covered 167.8 thousand ha. During the period of 2010–2014 the certified area increased by 12.5%, and the number of farmers since 2010 has decreased by 7.9%. In 2014, as compared to 2013, the area decreased by 2.1%, the number of farms by 4.4% (Fig. 1.18). The average size of the certified farm (including fisheries farms) in 2014, as compared to 2013, increased insignificantly from 66.7 ha to 68.3 ha. In 2014, only 37.6% of organic farms kept animals, i.e. 35.2 thousand of cattle heads, 20.2 thousand sheep, 6.2 thousand poultry, 0.9 thousand goats and 0.3 thousand pigs.

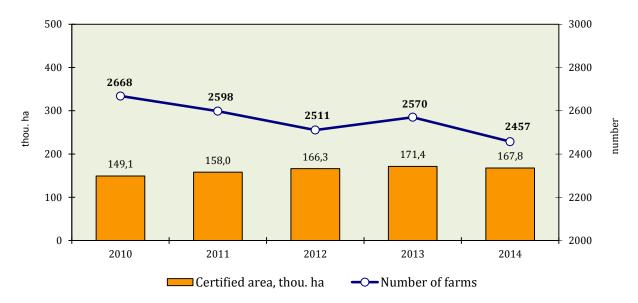


Fig. 1.18. Number of organic farms and certified area in Lithuania in 2010-2014

Source: Data of the Public Enterprise "Ekoagros".

**Food industry enterprises.** In 2014, 971 enterprises for manufacture of food products and beverages were in operation in Lithuania, including 18.6% of individual enterprises. During the period of 2010–2014 the total number of enterprises increased by 8.5%, whereas the number of individual companies decreased by more than 25.2% (Fig. 1.19).

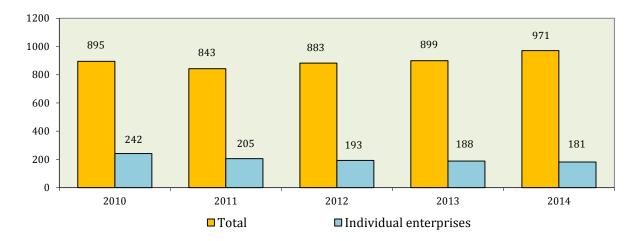


Fig. 1.19. Number of enterprises of manufacture of food products and beverages in 2010–2014 (at the end of the year)

Source: Data of Statistics Lithuania.

According to the data of the Department of Statistics, most of food production companies are located close to the major cities. 25.2% of all food and beverage production enterprises are sited in Kaunas County, over 21.9% in Vilnius County (Fig. 1.20). The least number of food industry enterprises is in the counties of Utena and Alytus, accounting for 2.8% and 3.5%, respectively. In 2014, if compared to 2013, in all counties the number of food and beverage production enterprises increased, most of all in Vilnius, Kaunas and Šiauliai counties –by 17.7%, 9.9% and 7.1%, respectively.

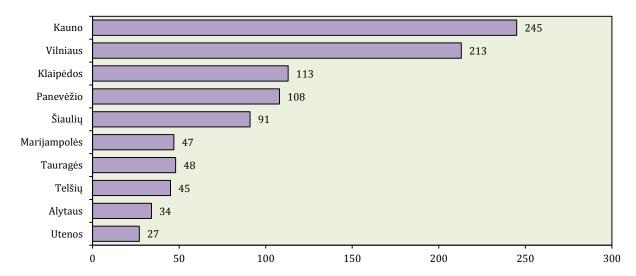


Fig. 1.20. Number of enterprises of manufacture of food and beverages by county in 2014 (at the end of the year)

Source: Data of Statistics Lithuania.

Over the reference period of 2010–2014, the total number of enterprises increased by 8.5% while in many sectors their number decreased. An increase was observed only in the sectors of preparation, processing and canning of fruit, berries and vegetables, preparation and processing of fish and fish products – by 13.9% and 1.9%, respectively. The number of enterprises in the manufacture of grain milling products and starch decreased by 6.5% as well as in the production of meat and meat products went down by 2.7%. The number of enterprises in processing of milk and production of dairy products stayed unchanged as in 2010, even though within the reference period it reduced significantly (Table 1.10).

Table 1.10. Entities of the food industry in 2010-2014

Indicators	2010	2011	2012	2013	2014		
Production of food pr	oducts an	d beverag	es				
Number of enterprises	895	843	883	899	971		
Number of employees	42867	40999	40828	41385	42843		
Sales in domestic market, EUR mill.	1835,5	2126,2	2281,5	2390,2	2501,6		
Export value, EUR mill.	1230,2	1439,9	1659,0	1765,3	1768,3		
Production of grain milling production	lucts, star	ch and sta	rch produ	cts			
Number of enterprises	31	28	28	28	29		
Number of employees	1229	1245	1063	798	1213		
Sales in domestic market, EUR mill.	51,1	86,4	79,6	65,7	53,3		
Export value, EUR mill.	62,0	102,3	102,9	115,9	125,5		
Production of meat and meat products							
Number of enterprises	182	159	167	167	177		
Number of employees	9103	8726	8372	8185	8415		
Sales in domestic market, EUR mill.	333,5	378,4	515,4	536,2	553,3		
Export value, EUR mill.	118,1	151,4	171,2	167,2	141,4		
Production of milk	and dairy	products					
Number of enterprises	33	29	25	31	33		
Number of employees	5848	5526	5713	7735	7557		
Sales in domestic market, EUR mill.	441,9	551,2	548,0	544,7	554,1		
Export value, EUR mill.	373,1	465,7	527,7	581,0	594,3		
Preservation and processi	ng of fish	and fish pı	oducts				
Number of enterprises	52	44	49	51	53		
Number of employees	4582	4181	4565	4658	4895		
Sales in domestic market, mill. EUR	67,9	74,2	76,7	113,8	186,1		
Export value, mill. EUR	260,1	286,5	296,9	289,8	323,0		
Preparation, processing and cann	ing of frui	t, berries a	and vegeta	ables			
Number of enterprises	36	32	39	39	41		
Number of employees	985	934	1053	1024	1058		
Sales in domestic market, EUR mill.	25,9	29,0	39,8	43,2	42,4		
Export value, EUR mill.	15,1	21,7	29,8	38,2	30,6		

<sup>\*</sup> VAT and excise duty incl.

Source: Data of Statistics Lithuania.

The total number of employees involved in the manufacture of food products and beverages in 2014, as compared to 2013, increased slightly – by 3.5%, but in comparison with 2010 dropped by 0.1%. During the reference period, the highest decrease in the number of employees was fixed in 2012. Tendencies in various sectors were different. In 2014, as compared to 2013, the number of employees increased most significantly in the enterprises involved in the manufacture of grain milling products, starch and starch products – by 52.0%, preparation and processing of fish and fish products – by 5.1%, preparation, processing and canning of fruit, berries and vegetables – by 3.3%., in the sector of manufacture of meat and meat products – by 2.8%. Reduction was observed only in the milk and dairy product sector – by 2.3%. In 2014, 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 employee number they were relatively smaller than the enterprises in other sectors.

With an increase in the number of enterprises, the average number of employees per enterprise dropped by 4.3%. In 2014, the average number of employees per enterprise in different sectors varied substantially: the smallest number was in the sector of animal and vegetable fats and oils – 15 employees. The average number of employees per enterprise in the sectors of preparing, processing and canning of fruit, berries and vegetables, bakeries and bakery products was 26, 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 (229 and 92 employees, respectively).

By the average number of employees per enterprise in 2014 the counties of Telšiai, Marijampolė and Utena took the lead and were ahead of the average in Lithuania by 2.3, 1.9 and 1.4 times, respectively (Fig. 1.21).

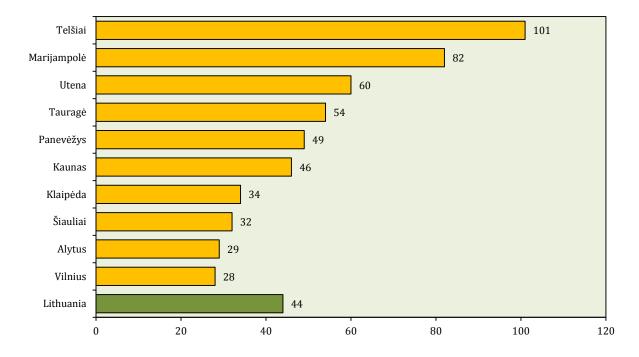


Fig. 1.21. Average number of employees per enterprise of manufacture of food and beverages by county in 2014 (at the end of the year)

Source: Data of Statistics Lithuania.

In 2014, on average, one Lithuanian enterprise operating in the manufacture of food products and beverages employed 44 employees (in 2013 – 46). This indicator by several times exceeded many EU countries. The higher number of employees per enterprise, on average, was only in Denmark, Ireland and the United Kingdom, respectively, 99, 63 and 50 employees (Fig. 1.22). The average number of employees in Poland, Latvia and Estonia was by 1.5 times lower than in Lithuania, but it was much higher than in many old EU Member States.

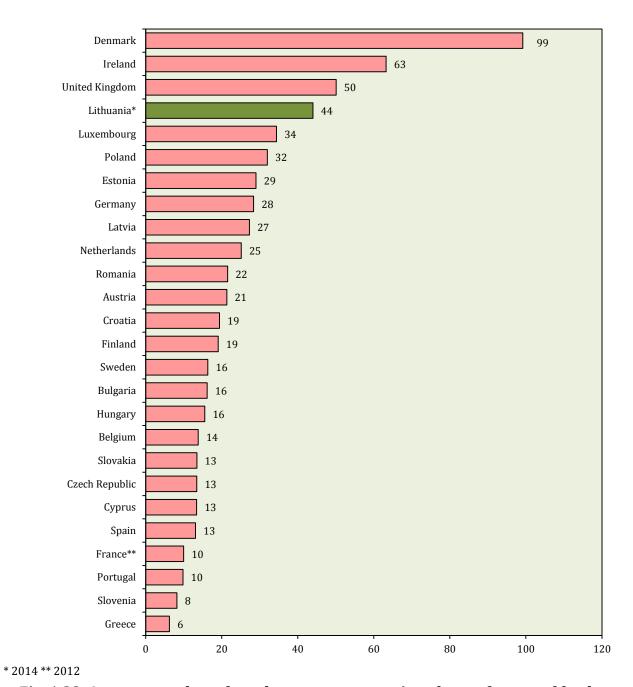


Fig. 1.22. Average number of employees per enterprise of manufacture of food and beverages in some EU countries in 2013

Source: Data of Eurostat.

50.6% of the total number of the enterprises operating in the manufacture of food products and beverages in Lithuania by employee number are assigned to very small (less than 10 employees), 31.0% to small (10–49 employees) and 14.3% to medium-sized (50–249 employees) companies (Fig. 1.23). Enterprises with over 250 employees accounted just for 4.1% in 2014, whereas the number of employees working here comprised nearly 46.1% of the total number of employees involved in the sector of manufacture of food products and beverages.

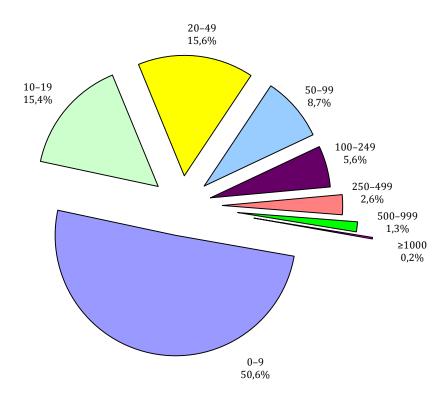


Fig. 1.23. Structure of enterprises of manufacture of food and beverages by number of employees in 2014 (at the end of the year)

Source: Data of Statistics Lithuania.

Within the last five-year period, changes occurred in the structure of enterprises involved in the manufacture of food products and beverages. In 2014, as compared to 2010, the number of very small companies increased from 42.1% to 50.6%. The number of small enterprises also reduced in the structure from 37.1% to 31.0%. The number of large enterprises in the structure, however, increased from 3.6% to 4.1%.

## 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

In 2014, retailing of food products, beverages and tobacco on the domestic market exceeded the pre-crisis turnover of 2008 by 0.3%. Within the period of 2010–2014 the scale of retail trade increased by 23.5% (Table 2.1). With the number of the population in the country decreasing (5.3%), statistics on per capita consumption of these products was higher – consumption of food products, beverages and tobacco within five years increased by 38.4%.

Table 2.1. Retail sales of food products, alcoholic beverages and tobacco products in 2010–2014

Indicators	2010	2011	2012	2013	2014	Change 2014, compared to 2010,
Total sales, EUR mill.	3103,9	3330,5	3481,3	3688,0	3833,3	23,5
Per capita, EUR	944,5	1033,7	1162,8	1246,9	1307,1	38,4

Source: Statistics Lithuania.

During the period of 2010–2014, average net earnings increased by 17.1% (Table 2.2), and the price index of food products (in December 2014, as compared to December 2010) was by 15.5% higher. In 2014, as compared to 2010, the country's population could afford more meat products, eggs and sugar, but less dairy products and bread.

According to the Department of Statistics 2012 research, food expenditure by the population of Lithuania made the largest portion – 34% of total household expenditures; as compared to 2008, this expenditure was higher by 1.3 percentage points.

Table 2.2. Purchasing power of net earnings of employees in the whole economy in 2010–2014

Indicators	2010	2011	2012	2013	2014*	Change 2014, compared to 2010, %		
Average monthly net earnings, EUR	449,6	461,8	478,3	501,1	526,5	17,1		
Purchasing power of average net month	Purchasing power of average net monthly earnings in IV Q							
beef ham with bone, kg	101	91	89	97	103	2,0		
pork ham without bone, kg	130	124	122	134	141	8,5		
milk, 2.5% fat content, l	757	684	718	665	675	-10,8		
butter, 82% fat content, kg	79	71	75	69	73	-7,6		
eggs, 10 pcs	442	459	339	430	450	1,8		
rye bread, kg	362	342	343	348	353	-2,5		
sugar, kg	543	424	435	487	609	12,2		

<sup>\*</sup> LIAE calculation.

Per capita daily consumption of food products in Lithuania, on average, is more than 2 kg. Since the standard of living in Lithuania is not high, consumption of cheaper products – potatoes, bread, flour, groats and other grain products – is higher, whereas intake of meat, milk and milk products, fish, vegetables and fruit is lower (Table 2.3).

Table 2.3. Per capita consumption of main agricultural products in 2010-2014, kg

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Products	2010	2011	2012	2013	2014*	EU average**	Difference between the EU average and Lithuania
Cereal & cereal products	117	117	116	119	120	112	8
Meat & meat products	74	74	73	77	77	85	-8
Eggs	208	216	200	212	218	210	8
Dairy products	278	302	303	307	302	n.a.	
Potatoes	94	99	95	93	95	72	23
Vegetables, watermelons, melons products	92	100	101	101	102	116	-14
Fruit & berries	63	59	58	67	60	100	-40
Sugar	29	31	30	37	37	38	-1
Fish & fish products	16	15	16	18	18	23	-5

<sup>\*</sup> LIAE calculation.

Sources: Data of Statistics Lithuania, EC and FAO.

About 3% of all food products in the retail sale are sold in local markets. Almost half of these products consisted of meat and meat products (Table 2.4), the turnover of

<sup>\*\*2011-2012</sup> 

which within 2010–2014 got reduced by around 30%. The trade volumes of other livestock products – milk and eggs – dropped in a similar way. The sales volumes of vegetables, fruit and berries, however, increased.

Table 2.4. The turnover of food products in local markets in 2014–2010, EUR million

Products	2010	2011	2012	2013	2014	Change 2014 compared to 2010, %
Food products	156,3	138,8	125,1	128,9	131,6	-15,8
Meat and meat products	90,5	76,2	63,5	64,5	63,8	-29,5
Vegetables and potatoes	32,3	31,3	32,4	32,5	35,9	11,1
Fruit and berries	13,8	13,7	12,7	15,1	15,1	9,4
Milk and milk products	4,6	4,2	3,6	3,5	3,2	-30,4
Eggs	5,5	4,0	3,1	2,9	3,2	-41,8
Other food products	9,6	9,3	9,7	10,4	10,3	7,3

Source: Statistics Lithuania.

In 2014 the highest yield of cereals was harvested in Lithuania (Table 2.5). Production and processing of agricultural products satisfied the needs of the domestic market (except pig meat) and made it possible to export a substantial part of cereals, bovine meat and poultry meat.

Table 2.5. Production and purchase of agricultural products in 2010–2014, thousand tonnes

Indicators	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Production						
Grain production	2867	3304	4737	4564	5324	85,7
Sugar beet for industry	723	878	1003	967	1014	40,2
Livestock & poultry, slaughtered (l. w.)	296	299	315	327		
Milk production	1737	1786	1778	1742	1790	3,1
Egg production, mill. pcs	825	817	810	788		
Purchase						
Cereal	1927	1661	3092	2954	3240	68,1
Rapeseed	386	395	582	501	406	5,2
Livestock & poultry (l. w.)	235	234	244	262	268	14,0
Natural milk	1278	1317	1360	1339	1436	12,4
Eggs, mill. pcs	446	412	392	463	483	8,3

Source: Statistics Lithuania.

In 2014, a rich grain harvest yielded in the world reduced grain purchase prices in autumn by 10–15%. Owing to the augmented milk production and declining milk product prices on the global market, milk purchase prices went on shrinking from April

and almost reached the 2009 level. These price tendencies and an embargo by Russia impacted product retail prices on the domestic market. In essence, within 2014, the major part of products became cheaper on the domestic market, whereas some exclusion also occurred – prices for rye bread and milk went up slightly (Table 2.6).

Table 2.6. Retail prices of food products in December 2010-2014, EUR per kg

Products	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Beef ham with bone	4,77	5,42	5,67	5,29	5,12	7,3
Pork ham with bone	3,08	3,29	3,60	3,49	3,39	10,1
Chicken, drawn	2,35	2,49	2,62	2,58	2,48	5,5
Milk, 2.5 % fat content, EUR/l	0,65	0,72	0,75	0,77	0,78	20,0
Butter, 82 % fat content	6,40	6,94	6,64	7,39	7,25	13,3
Curd, 5–9 % fat content	3,30	3,65	3,59	3,99	3,90	18,2
Eggs, 10 pcs	1,08	1,08	1,49	1,19	1,19	10,2
Best quality wheat flour	0,70	0,75	0,70	0,68	0,68	-2,8
Rye bread	1,34	1,44	1,46	1,47	1,50	11,9
Best quality wheat flour bread	1,57	1,65	1,58	1,65	1,63	3,8
Potatoes	0,35	0,23	0,23	0,35	0,26	-25,7

Source: Statistics Lithuania.

Products by local processors are predominant on the domestic market. The volume of Lithuanian meat and meat products accounts for around 93%; bread, pastry and milling products – 90%, and milk products – 79%.

The Ministry of Agriculture in 2014 initiated the project "AuGink savo kraštą", targeted to stimulate one to choose products grown in close vicinity. The project encourages growing safe and healthy products in rural areas, which are grown and manufactured in the clean and nice-looking environment using sustainable methods.

## 2. Foreign trade in agricultural and food products

The improved economic situation and stronger demand in 2010 both in Lithuania and on the markets of its main foreign trade partners after the 2008–2009 global financial and economic crisis offered opportunities for export and import of Lithuanian agricultural and food products to revert again to the stage of growth. In 2010, as compared to 2009, the value of export and import increased about 1.2 times. Over the period of 2011–2013, Lithuania's foreign trade in agricultural and food products augmented at a rapid pace reaching its peak in 2013 during the reference period (Fig. 2.1). Comparing to the year 2010, the export value in 2013 increased 1.7 times, import 1.6 times, and the foreign trade turnover 1.6 times.

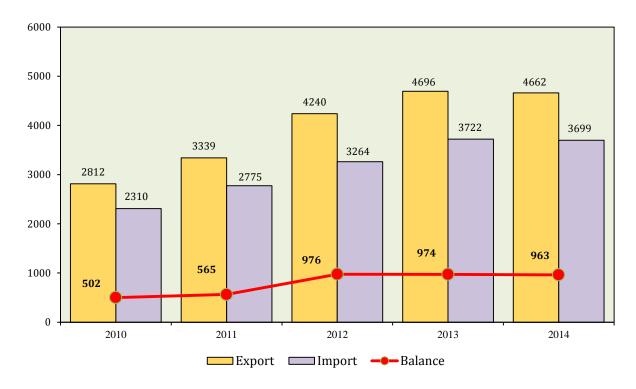


Fig. 2.1. Export, import and foreign trade balance of agricultural and food products in 2010–2014, EUR million

The year 2014 was complicated for Lithuanian farmers and entrepreneurs, full of ordeals, changes and challenges: the reduced prices for exported products, the effects of African pig plaque, and an import embargo imposed by Russia – one of the main Lithuania's export markets – on certain agricultural and food products (dairy products, meat and meat products, fish and fish products, vegetables and fruit). According to the preliminary data of the Department of Statistics, Lithuania in 2014 exported agricultural and food products for EUR 4.7 billion and imported for EUR 3.7 billion. If compared to 2013, export dropped by 0.7% and import by 0.6%. Exports of products of Lithuanian origin reached EUR 3.0 billion, accounted for 65% (in 2003, 64%) of the total exports of agricultural and food products and increased by 0.7%. The value of exports of products of non-Lithuanian origin got reduced by 3.3%. The balance of trade was positive, but dropped by EUR 11 million (1.1%), as compared to 2013, and amounted to EUR 963 million. Foreign trade turnover reached EUR 8.4 billion.

Trade in agricultural and food products makes a significant part in the total foreign trade of Lithuania (Fig. 2.2.). In 2010, the share of export in agricultural and food products accounted for 18.0% and of import for 13.1%. In 2014, the share of export in agricultural and food products stayed at the level of the year 2013, whereas the share of import, comparing to 2013, reduced by 0.3 percentage points and accounted for 13.9% of the total import of Lithuanian goods.

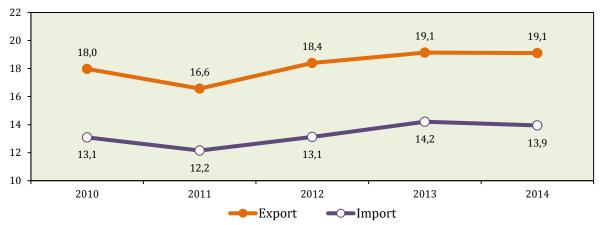


Fig. 2.2. The share of foreign trade in agricultural and food products in total foreign trade in 2010–2014, per cent

In 2014, like in 2013, vegetable products (CN Section II) prevailed in exports. Their share constituted 36.4% of the total value of exported agricultural and food products and, if compared to 2013, dropped by 3.4 percentage points (Fig. 2.3). This decline was due to the considerably reduced export of fruits and nuts, vegetables and oil seeds. Export values and shares of all other three CN product sections in the total export value of agricultural and food products increased slightly. 35.6% included the prepared foodstuffs, non-alcoholic and alcoholic beverages, and tobacco products (CN Section IV), 26.3% live animals and animal products (CN Section I) and just 1.8% fats and oils (CN Section III). Products of Lithuanian origin made the largest portion (88%) of exported products under CN Section I. 66% of products exported under CN Section IV, 50% under CN Section II and 27% under CN Section III were grown or manufactured in Lithuania.

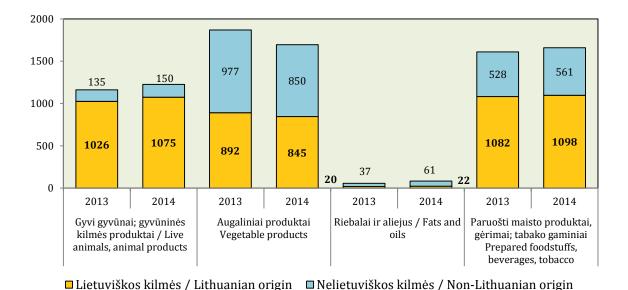


Fig. 2.3. Exports of agricultural and food products by CN section and origin of products in 2013 and 2014, EUR million

Source: Statistics Lithuania.

In 2014, Lithuania exported agricultural and food products to 122 countries (of Lithuanian origin to 119 countries). Most of all increased export of fish and crustaceans (1.3 times), tobacco products (1.1 times), cereals (by 6.1%), live trees and other plants, cut flowers (1.4 times), animal and vegetable fats and oils (1.5 times), products from cereals and bakery confectionery (1.2 times), cocoa and cocoa products (by 9.4%), shellac, plant extracts (4.7 times), and non-alcoholic and alcoholic beverages (1.4%) (Fig. 2.4).

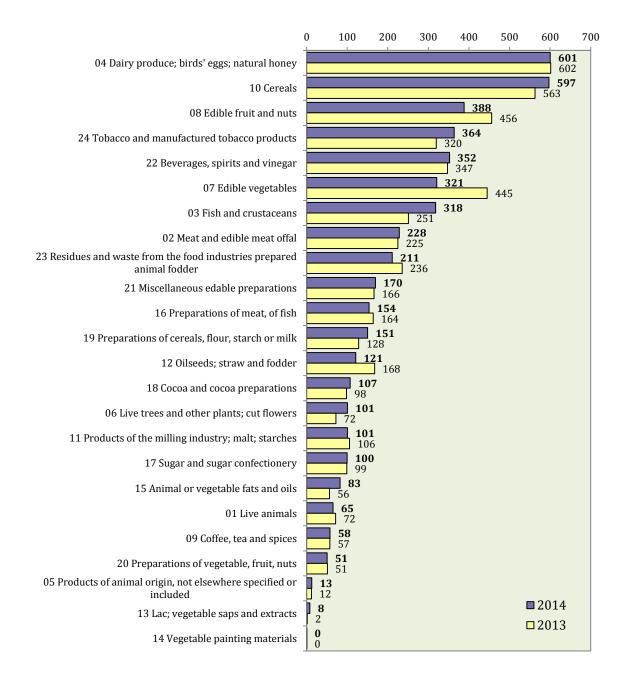


Fig. 2.4. Exports of agricultural and food products in 2013 and 2014, EUR million *Source: Statistics Lithuania.* 

Export of vegetables (1.4 times), fruit and nuts (1.2 times), oil seeds, straw and fodder (1.4 times), residues and waste from the food industries and prepared animal fodder (10%), meat and fish products (6.2%), live animals (8.9%), and products of the milling industry, malt and starch (4.7%) decreased most considerably.

In 2014, the value of exported products of Lithuanian origin reached EUR 3041 million. 73% of the value of products of Lithuanian origin consisted of cereals, milk and dairy products, eggs and honey, tobacco products, fish and crustaceans, meat and meat offal, residues and waste from the food industries and prepared animal fodder, meat and fish products (Fig. 2.5).

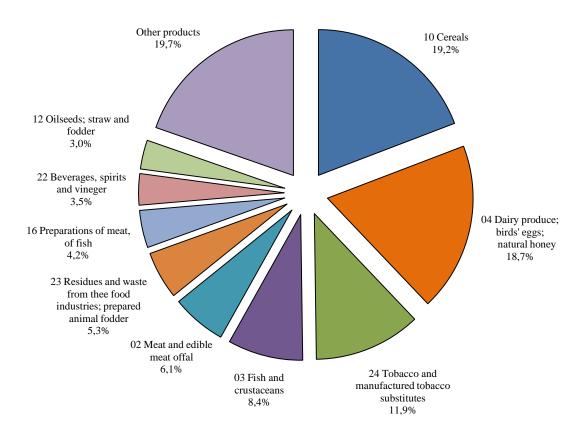


Fig. 2.5. Structure of exports of Lithuanian origin agricultural and food products in 2014

Source: Statistics Lithuania.

During the reference period, exports of the majority of products of Lithuanian origin increased. Most considerable increase of export was noted of fish and crustaceans – 1.3 times, tobacco products by 13%, cereals by 5.4%, products from cereals, flour and starch by 16%, cocoa and cocoa products by 9.3%, various food products (CN21) by 5.7%, sugar and sugar confectionery products by 4.9%, meat and meat offal by 1.7%, animal and vegetable fats and oils by 11%.

The most considerable reduction (1.5 times) in exports was of Lithuanian cultivated oil seeds, straw and fodder. Export of residues and waste from the food industries and prepared animal fodder dropped 1.2 times, meat and fish products by 9.4%, fruit and nuts 1.8 times, live animals and vegetables 1.2 times each, and products of the milling industry, malt and starch by 6.3%.

Cereals accounted for 12.8% of the total export value of agricultural and food products. The cereals harvest that was higher in 2014 comparing to 2013 determined an increase in their export value within the reference period by 6.1%, to EUR 597 million. 98% of exported cereals were cultivated in Lithuania. In the structure of exports of agricultural and food products of Lithuanian origin, cereals in terms of value constituted 19.2%. In total, 3049 thousand tonnes of various cereals cultivated in Lithuania was exported, i.e. 1.2 times more than in 2013. Export of barley increased 1.2 times, wheat 1.3 times, buckwheat 1.5 times, oats 1.7 times, and maize 3.7 times. Export of rye dropped 1.7 times and triticale 1.9 times.

The key export partners were the Islamic Republic of Iran (40% of the total exports of cereals), Saudi Arabia (10%), Latvia (8.8%), and Egypt (7.5%).

In 2014 the export value of milk and milk products (CN 0401–0406) reached EUR 575 million. As a result of an embargo imposed by Russia in August 2014, the export value of the products under analysis as compared to 2013 decreased by 1.4% or EUR 8.0 million. Milk and dairy products accounted for 12.3% of the total exports of agricultural and food products. 96% of the above-mentioned products were manufactured in Lithuania.

Within the reference period, exports of milk and milk products of Lithuanian origin declined by EUR 2.5 million. 44% of the value of exports of milk and milk products consisted of cheeses and curd. Export of these products dropped by 4.4% as compared to 2013. Export volume reduced by 1.9% and reached 71.2 thousand tonnes. Not concentrated milk and sweet cream shipment amounted to 228.1 thousand tonnes, i.e. more by 67.2 thousand tonnes. Their export value, however, dropped by 2.1% and constituted EUR 139 million (accounting for 25% of the total value of dairy product exports). In the past year export of raw milk went up rapidly. In 2014, 153 thousand tonnes of raw milk for EUR 50 million was shipped. Comparing with 2013, raw milk export volume increased 1.6 times or by 60 thousand tonnes, its value 1.4 times or by EUR 14 million. 74% of raw milk was exported to Poland, 24% to Belarus and 1% each to Estonia and Latvia. 16% of the export value of milk products consisted of concentrated milk and sweet cream with their exports by 1.2 higher than in 2013. The export volume increased 1.3 times and reached 38.7 thousand tonnes. The amount of exported butter and other milk fats increased 1.7 times, their export value went up 1.6 times.

The main export countries of milk and dairy products of Lithuanian origin were Russia (17% of the total export of dairy products), Italy (16%), Poland (15%), Germany (11%), and Latvia (7.6%).

Third ranked in terms of export value were fruit and nuts, with their exports amounting EUR 388 million (8.3% of the total exports of agricultural and food products). Fruit of Lithuanian origin, however, accounted just for 3.3%. The largest portion of exports consisted of frozen bilberries, gathered in Lithuania (2859 t for EUR 8.0 million), black currant (873 t, EUR 745 thou.). 51% of the total exported fruit and nuts were shipped to Russia, 25% to Belarus, 6.4% to Latvia. 23% of fruit and nuts of Lithuanian origin were exported to Germany, 13% to Belgium, and 11% to Italy.

Export of tobacco products amounted to EUR 364 million, their share in the total export made up 7.8%. Almost all exported products were manufactured in Lithuania. 73% of export consisted of cigarettes, 25% smoking tobacco, and the remaining part included cigars and tobacco refuse. The key export markets were Algeria, Sweden, the

Netherlands, Latvia, Belgium, Finland, Egypt, and Poland, shipment to these countries made up 74% of tobacco products.

In 2014, 7.6% of the export value belonged to beverages, spirits and vinegar. Their export value increased by 1.4% and reached EUR 352 million. Lithuanian origin beverages, however, accounted for 30% of the export value. The value of the exported alcoholic beverages reached EUR 297 million. The main export partners were Russia (77%), and Latvia (9.6%). The larger portion of non-alcoholic beverages was shipped to Latvia (46%), Estonia (29%), and Russia (6.6%).

Export of vegetables in 2014 amounted to EUR 321 million, its value comprising 6.9% of the total exports. Within the reference period, the export value dropped 1.4 times. Vegetables of Lithuanian origin accounted just for 15% of the total export of vegetables. 78% of Lithuanian origin vegetables consisted of champignons (32% of exports of Lithuanian origin vegetables), chanterelles (19%), dried peas (17%), potatoes (6.2%), and carrots (3.6%). Of vegetables of non-Lithuanian origin, the major part of exports consisted of tomatoes (33% of exported vegetables of non-Lithuanian origin), paprika (21%), butterhead lettuce (5.7%), aubergines (4.4%), chanterelles (3.9%), cucumbers (3.7%), cauliflowers and broccoli (3.5%), and champignons (3.3%).

The major share of exported vegetables belonged to Russia – 64% of the total exports of vegetables. 13% of vegetables were shipped to Belarus, 4.3 to Latvia, and 4.2% to Germany. Vegetables of Lithuanian origin were largely exported to Sweden (15%), Germany (14%), Latvia (14%), Norway (9.1%), Poland (7.3%), the Netherlands (9.1%), and Estonia (5.1%).

Exports of fish and crustaceans amounted to EUR 318 million, this making 6.8% of the total value of exported agricultural and food products. During the reference period the value increased 1.3 times. The largest portion of exports included dried, salted, smoked or otherwise processed fish – EUR 173 million. Fish fillets and other fish meat were shipped for EUR 101 million, frozen fish for EUR 23 million. The main export partners were Germany (42%), Belgium (11%), and Italy (9.3%). Products of Lithuanian origin comprised 80% of the total export of fish and crustaceans.

As compared to 2013, exports of meat and edible meat offal in 2014 increased by 6.3% up to EUR 228 million and accounted for 4.9% of the total exports of agricultural and food products. 81% of the exported meat was of Lithuanian origin. 42% of the export value consisted of poultry meat, 34% of bovine meat, and 8.7% of pig meat.

Poultry meat and poultry offal, manufactured in Lithuania, comprised the larger portion of exports in 2014 – EUR 86 million, by 8.1% more than in 2013. The export volume increased by 4.3% and reached 39.6 thousand tonnes. Poultry meat was exported to 31 countries. 33% of the total exported poultry meat and offal was shipped to the Netherlands, Estonia 13%, France 12%, Latvia 11%, and the United Kingdom 8.5%

Exported meat of bovine animals, manufactured in Lithuania, amounted to 25.3 thousand tonnes, with its value standing at EUR 78 million (its amount increased by 19%, value by 4.1%). Bovine meat was exported to 31 countries: Russia (27% of the total exported bovine meat), Italy (17%), the Netherlands (11%), and Sweden (6.2%).

The value of exported pig meat of Lithuanian origin was 1.8 times lower than in 2013. Pig meat was exported to 18 countries. The major portion was shipped to Latvia (47% of exported pig meat), Estonia (15%), and Poland (14%).

Exported residues and waste from the food industries and prepared animal fodder amounted to EUR 211 million. These products accounted for 4.5% of the total export. The products of Lithuanian origin comprised 76% of the total exports of the products in question. The export partners of the products under this section are the United Kingdom (16%), Poland and Latvia (13% each), Germany (9.3%), Norway (6.0%), and Russia (5.3%).

In 2014, exports of agricultural and food products to the EU-28 countries further retained tendencies for growing. If compared with 2013, export to the EU countries increased by 3.5%, up to EUR 2505 million, and comprised 54% of the total export. This growth was mostly conditioned by exports of products of non-Lithuanian origin, which went up by 25%. Export of Lithuanian origin products dropped by 1% and its share in the total exports to the EU countries by almost 4 percentage points, to 79%.

The major part of products exported to the EU countries consisted of milk and dairy products (14% of the total export to the EU countries), fish and crustaceans (12%), tobacco products (9.9%), prepared animal fodder and residues and waste from the food industries (6.8%), meat and meat offal (6.6%), cereals (5.8%), meat and fish products (5.4%), oil seeds, straw and fodder (4.4%), and various food products (4.4%). The above-mentioned products accounted for 69% of the total export of agricultural and food products to the EU countries. The main partners of export to the EU countries: Latvia (export of products of Lithuanian origin comprised 60%), Germany (91%), Poland (72%), Estonia (57%), and the Netherlands (96%). Export to these countries accounted for 63% of the total export to the EU (Fig. 2.6).

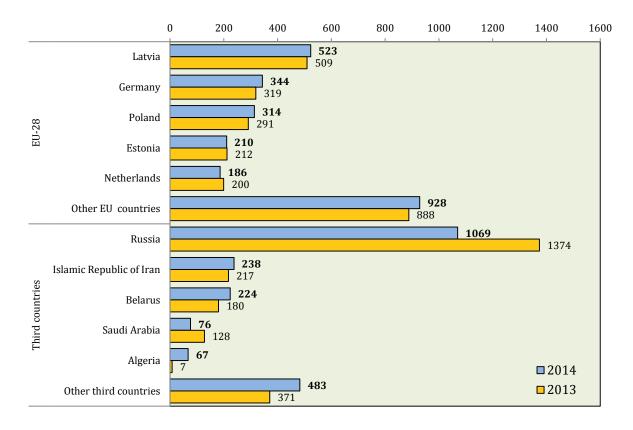


Fig. 2.6. Exports of agricultural and food products by country in 2013–2014, EUR million

Source: Statistics Lithuania.

In 2014, as compared to 2013, export of agricultural and food products to third countries dropped by 5.3% and reached EUR 2157 million. This decrease was conditioned by the slump of export to Russia by 22%, which accounted for almost 50% of export to third countries. The share of export to third countries which belonged to the products of Lithuanian origin made 49%.

The largest share of export to third countries consisted of cereals (21% of the total export to third countries), fruit and nuts (14%), beverages, spirits and vinegar, and vegetables (12% each), and milk and dairy products (11%). The value of these products accounted for almost 70% of the total value of products exported to third countries. The key partners of export to third countries were Russia (21% of the products of Lithuanian origin), Islamic Republic of Iran (almost 100%), Belarus (20%), Saudi Arabia, and Algeria (100% each). Export to these countries comprised 78% of the total export to third countries.

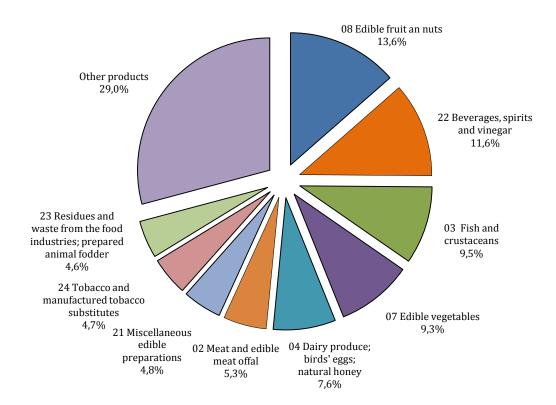
In 2014, Lithuania imported goods from 157 countries, agricultural and food products were imported from 109 countries for EUR 3699.3 million, by EUR 22.9 million less than in 2013. Agricultural and food products comprised 13.9% of the total import of Lithuania. Of the 24 CN chapters, imports of 10 products declined. The highest increase of import consisted of shellac – 2.9 times, vegetable plaiting materials 1.8 times, live plants and cut flowers by 22%, fish and crustaceans by 19%, tobacco and tobacco products by 15%, cocoa and cocoa products by 10.6%, products of cereals and starch by 9.5%, fats and oils, coffee and tea, milk and milk products, eggs and honey by 7.7each (dairy products increased just by 5.3%). Import of live animals dropped by 30%, that of vegetables by 24%, and products of animal origin (CN 05) by 21%.

Over the period of 2010–2014, import of fruit and nuts in terms of value was in the lead. Their value in 2014 accounted for 13% of the total value of imported agricultural and food products. Plenty of various beverages, fish and crustaceans, vegetables, milk and milk products, meat, miscellaneous food products under CN Chapter 21 (extracts, food additives, and spreads), tobacco and tobacco substitutes, residues and waste of the food industries, and fodder were imported. The value of the above-mentioned products accounted for 71% of the total import value of agricultural and food products (Fig. 2.7).

Every year edible fruit and nuts are imported most of all. Even though in 2014, as compared to 2013, their import dropped by 7.5%, their share in the imports of agricultural and food products remained highest and comprised 13.6%. 73 % of the total value of import of fruit and nuts consisted of fresh strawberries, kiwi, raspberries, cranberries, blueberries (18%), apples and pears (17%), citrus fruit (16%), apricots, cherries, peaches, plums (14%). grapes, fresh or dried (7.8%). 36% of fruit and nuts were shipped from the Netherlands, 15% from Spain, 8.1% from Italy, 7.1 from Poland, and 4.3% from Latvia. 77% of the products under this chapter were re-exported.

In 2014, various beverages were ranked second by import volume. 50% of import value in this group consisted of wine, strong spirits 23%, mineral and carbonated waters with sugar or sweetening matter and other flavours 9.3%, and beer 7.1%. Wine was imported from 41 world countries, however, the share of imports from France (EUR 78.9 million), Italy (EUR 53.2 million), and Spain (EUR 44.3 million) constituted 84% of the total imported wine value. Strong spirits were imported from 42 countries, mostly from France, Germany, Latvia, the United Kingdom, Russia, Sweden, and Spain (almost 70%), mineral and carbonated waters with various flavours – from Poland, Latvia,

Austria, and Germany (more than 71%), beer – from Belarus, Germany, Latvia, the Netherlands, and the Czech Republic (70%).



 $Fig.\ 2.7.\ Structure\ of\ import\ of\ agricultural\ and\ food\ products\ in\ 2014$ 

Source: Statistics Lithuania.

As to the volume of imports, fish and crustaceans rank third. In 2014, imports of fish and crustaceans, as compared to 2013, in terms of value increased by 19%. Import amounted to 38 thousand tonnes of fresh and chilled fish, 38 thousand tonnes of fish fillets and other fish meat, and 48 thousand tonnes of frozen fish. Fish import prices during the reference period changed slightly: the average import price for fresh and chilled fish decreased from 4460.9 EUR/t to 4218.6 EUR/t, fish fillet and other fish meat – from 2574.2 EUR/t to 2492.5 EUR/t. 42 % of fish and crustaceans were imported from Sweden (EUR 146.9 million), 11% from Norway (EUR 39.1 million), 9.9% from Germany (EUR 34.8 million), 4.8% from the USA (EUR 17.1 million), and 4.3% from Latvia (EUR 15.1 million). Import from these countries accounted for 72% of the total value of imported fish and crustaceans.

Import of vegetables decreased even by 24%, reached EUR 342.9 million, constituted 9.3% of the total import value of agricultural and food products. Import of champignons, paprika, chanterelles, and aubergines comprised 38% (re-exported 94 thou. t, 90% of imported products in this group), tomatoes 32% (85 thou. t, 83%, respectively), various lettuces 7.4% (22 thou. t, 85%, respectively), various cabbages 5.5% (28 thou. t, 74%, respectively), and cucumbers 4.9% (12 thou. t, 61%, respectively). The major part of vegetables was imported from the Netherlands (64%), Spain (11%), and Poland (8.9%). If estimated by weight, 78% of the products under this chapter were re-exported.

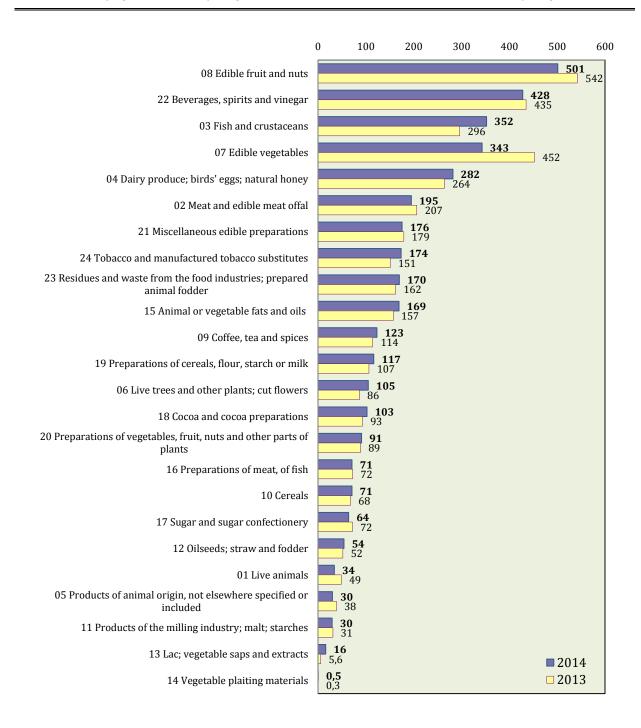


Fig. 2.8. Import of agricultural and food products in 2013 and 2014, EUR million *Source: Statistics Lithuania.* 

Imports from the EU constitute the largest share of the imported agricultural and food products. In 2014, it reached 84% (EUR 3124 million). The share of the old EU Member States (EU-15), compared to 2013, decreased by 2.1 percentage points. The share of the old EU Member States made 63% of the agricultural and food products, imported from the EU. 58% of the total value of imported agricultural and food products consisted of imports from the Netherlands, Poland, Latvia, and Germany.

In 2014, imports of agricultural and food products from the countries of all groups exceeded the 2010 level, whereas the volumes of imports from the EU old countries(EU-15) and Russia, Belarus, Kazakhstan (Customs Union) decreased if compared to 2013. Import from the EU countries of agricultural and food products accounted for 24% of the total import of goods from the EU to Lithuania, from third countries – 5.8% of the total import of goods from third countries (in 2013, 20 and 5.3%, respectively).

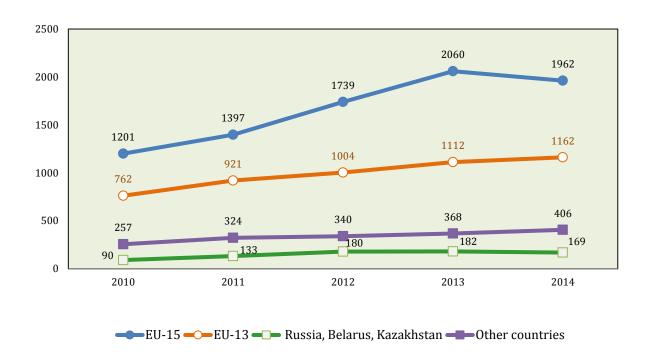


Fig. 2.9. Dynamics of import of agricultural and food products by country group in 2010–2014, EUR million

 $\Delta altinis:$  Statistikos departamento duomenys.

In 2014, imports of agricultural and food products from the countries of all groups exceeded the 2010 level. Import volumes from Russia, Belarus, Kazakhstan and other countries went on increasing permanently until the year 2013. In 2013, it was 2 times and in 2014 – 1.8 times higher than in 2010. Import from the EU also increased and was highest in 2013.

In 2014, import from Russia, Belarus and Kazakhstan, comparing to 2013, decreased by EUR 12.4 million, i.e. by 6.8%. The total import from the Customs Union reached EUR 169 million, accounted for 4.6% of the total import of agricultural and food products and 30% from third countries. Import from other countries comprised 11% (EUR 406 million) of the total import of agricultural and food products.

In 2014, the surplus of foreign trade in agricultural and food products made EUR 963 million. Export of products under CN twelve chapters exceeded import (Fig. 2.10). The highest positive balance of trade stood for trade in grain, CN Chapter 04 products (dairy produce, eggs, and honey), tobacco and tobacco products. The highest negative balance of trade was noted for fruit and nuts, fats and oils, various beverages, coffee and tea.

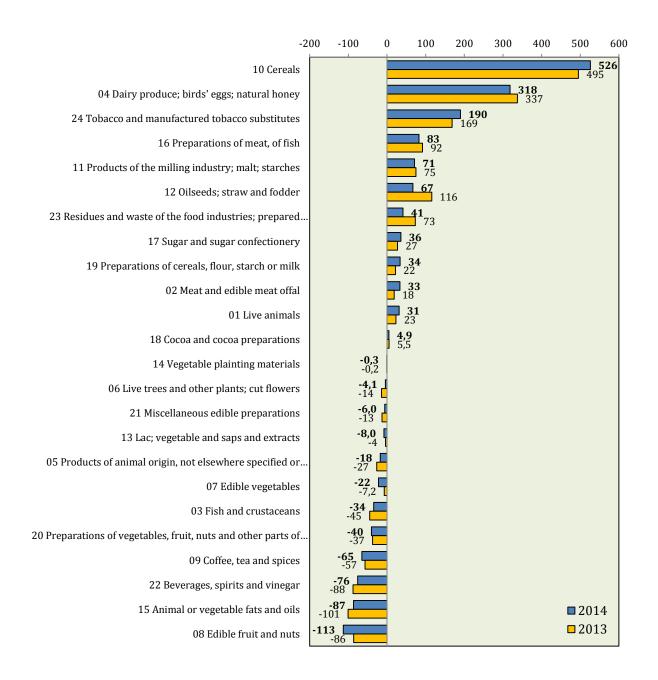


Fig. 2.10. Balances of agricultural and food products in 2013 and 2014, EUR million

The balance of trade with the EU countries, like in 2013, was negative; the deficit shrank from EUR 754 to 620 million. Surplus in trade with third countries was observed, and in 2014, as compared to 2013, it has fallen from EUR 1728 to 1583 million.

The highest trade surplus was with Russia (EUR 978 million, in 2013 – EUR 1279 million), Iran (EUR 235 million), Latvia (EUR 161 million), Belarus (EUR 160 million), the highest deficit – in trade with the Netherlands (EUR 413 million), Poland (EUR 179 million), and Spain (EUR 155 million).

Further tendencies of Lithuania's foreign trade in agricultural and food products will depend on the rates of development in the manufacture of agricultural and food products, business environment, the harmonious activity of the market participants, as well as on the global international trade tendencies and foreign trade policy pursued by the partner countries. With the change of the political situation in Russia, upon imposition of various sanctions, restricting trade in agricultural and food products, search for new markets and establishing a strong foothold here are of special importance.

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

#### 3.1. Cereals

Cultivation of grain crops is gaining popularity in Lithuania, since it needs less labour effort if compared to livestock breeding, while purchase prices has been increasing still more from the autumn of 2007 to 2012. During this period, the volumes of yield increased almost twice. Such growth to a large extent was due to the improved natural conditions and support from the EU structural funds to investments of farmers in modern tractors, combine harvesters and farm implements.

**Cultivation.** The area under grain crops in Lithuania in 2014, as compared to 2010, increased by 29% (Fig. 2.11). Areas under spring crops increased most of all (by 40% annually), since a substantial part of winter crops were winterkilled and reseeded in spring. Over the period of 2010–2014 most of all increased areas under wheat (37%), whereas areas under rape decreased (15%). In 2014, in the structure of areas under crops, the areas under winter crops comprised 38% – by14 percentage points less than in 2010.

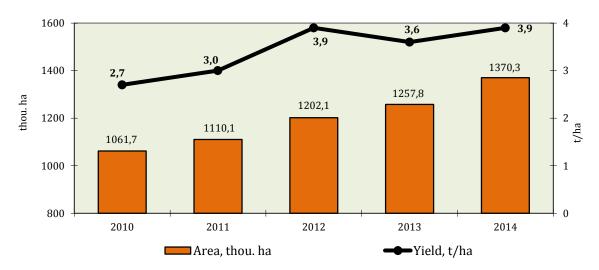


Fig. 2.11. Crop area and yield of grain crops in 2010-2014

Source: Statistics Lithuania.

The yielding capacity of grain crops every year is on the increase. It is impacted not only by the better climatic conditions, but also by support from the EU structural funds. New machinery and cultivation technologies are starting to be repaid. Over the period of 2010–2014, the highest yielding capacity of grain crops was noted in 2012. In 2014, if compared to 2010, the yielding capacity increased by 44%. The yield of barley and oats has been distinguished here (Table 2.7).

Table 2.7. Average yield of grain crops in 2010-2014, tonnes per hectare

Kind of grain crops	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Grain crops	2,70	2,98	3,94	3,62	3,89	44,1
cereals	2,76	3,03	4,02	3,68	3,98	44,2
winter cereals	3,06	3,03	4,73	4,09	4,35	42,2
wheat	3,40	3,32	5,17	4,56	4,81	41,5
triticale	2,43	2,54	3,82	3,18	3,36	38,3
rye	1,76	2,02	2,81	1,96	2,26	28,4
barley	2,52	2,95	4,42	3,60	4,11	63,1
spring cereals	2,45	3,03	3,27	3,22	3,75	53,1
wheat	3,06	3,47	3,89	3,71	4,31	40,8
barley	2,36	3,01	3,38	3,27	3,80	61,0
triticale	2,11	2,4	2,91	2,88	3,12	47,9
oat	1,62	2,04	2,31	2,24	2,42	49,4
buckwheat	0,73	0,96	0,90	0,93	0,95	30,1
grain maize	6,68	7,48	6,10	7,37	6,06	-9,3
other cereals	1,42	1,81	2,56	1,60	1,37	-3,5
dried pulses grain	1,41	1,72	1,89	1,91	2,20	56,0
Rapeseed	1,65	1,94	2,43	2,13	2,33	41,2

Source: Statistics Lithuania.

The yield of grain crops in Lithuania in 2014 was lower than the average in the EU countries – wheat by 18%, barley 15%, and rape by 35%.

In 2014, the harvest of grain crops amounted to 5324.0 thousand tonnes, or by 86% more than in 2010 (Table 2.8). The harvest of winter crops was by almost 20% lower than in 2013, and spring crops even by 63% higher. Wheat comprised 60% and barley 19% in the structure of crops.

Table 2.8. Average harvest of grain crops in 2010-2014, thousand tonnes

Kind of grain crops	2010	2011	2012	2013	2014	Change 2014, compared to 2010,
Grain crops	2867	3304	4737	4564	5324	85,7
cereals	2797	3226	4657	4475	5123	83,2
winter cereals	1592	1192	2810	2632	2120	33,2
wheat	1250	912	2257	2125	1708	36,6
triticale	218	187	370	387	292	33,9
rye	87	85	155	94	84	-3,4
barley	37	8	28	25	37	0
spring cereals	1204	2034	1847	1843	3003	2,5*
wheat	460	957	742	747	1523	3,3*
barley	513	752	714	660	982	91,4
triticale	41	50	65	66	103	2,5*
oat	94	128	164	165	184	95,7
buckwheat	14	26	31	28	36	2,6*
mixed cereals	35	47	50	55	58	65,7
grain maize	47	72	79	121	115	2,4*
other cereals	1	1	2	1	1	0
Rapeseed	417	484	633	550	502	20,4

<sup>\*</sup> Times.

The harvest of grain crops in Lithuania in 2014, as compared to 2013, was higher by 16.7%. The area of the harvested yield larger by 9.2% and yielding capacity higher by 7.5% resulted in the record harvest. The record yields were of wheat, barley, oats, buckwheat, and maize.

**Purchase of grains in Lithuania.** In 2014, purchase of grain from Lithuanian cultivators was by 10% higher than in 2013 (Table 2.9). In 2014, as compared to 2013, most of all increased the amounts of purchased barley, feed wheat and Class II wheat. Amounts of triticale, food wheat and rape decreased.

Table 2.9. Purchase of grains in 2010-2014, thousand tonnes

Kind of grain	2010	2011	2012	2013	2014	Change 2014, compared to 2010,
Grain, total	1916	1661	3092	2954	3240	69,1
wheat	1366	1195	2356	2209	2323	70,1
food wheat, class I	613	497	686	970	838	36,7
food wheat, class II	256	195	852	794	865	3,4*
feed wheat	497	503	818	433	620	24,7

Kind of grain	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
rye	51	25	79	46	29	-43,1
food rye, class I	17	12	35	21	16	-5,9
barley	372	320	337	357	573	54,0
food barley	32	40	51	57	115	3,6*
malt barley	68	56	72	74	345	5,1*
feed barley	272	224	214	226	112	-58,8
oats	12	15	20	27	32	2,7*
buckwheat	2	9	15	13	11	5,5*
triticale	110	73	249	248	177	60,9
maize	3	11	26	47	44	14,7*
Rapeseed	386	395	582	501	406	5,2

<sup>\*</sup> Times.

Sources: Statistics Lithuania; AFMIS.

Very rich harvests, yielded in the EU, Russia, Ukraine, USA and East Asia, made an impact on the global grain purchase prices. The average purchase price for food wheat in the EU countries in 2014, as compared to 2013, has dropped by about 12%. Purchase prices of grain in Lithuania in 2014 were also lower than in 2013. In 2014, prices were cheaper for barley by 21%, oats by 15% and rape by 16%. In 2014, comparing to 2010, the average purchase price for grains was on the same level (Table 2.10). Purchase prices of buckwheat and maize were considerably lower.

Table 2.10. Average purchase price of grains in 2010-2014, EUR per tonne

Kind of grain	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Grain, total	150	190	205	176	150	0
wheat	158	194	208	179	154	-2,5
rye	113	175	176	136	117	3,5
barley	129	179	200	178	140	8,5
malt barley	146	208	226	213	172	17,8
triticale	136	161	188	146	126	-7,4
oats	89	159	161	118	100	12,4
buckwheat	508	349	297	267	263	-48,2
maize	181	181	205	167	146	-19,3
Rapeseed	318	422	456	349	293	-7,9

Source: Statistics Lithuania.

**Processing.** The national grain processing companies in 2014 manufactured the higher amount of flour (10%), groats (16%), fresh bread (5%) and bakery confectionery (6%), whereas the amount of baked rye bread was lower (6%) (Table 2.11).

Table 2.11. Production of grain products in 2010-2014, thousand tonnes

Products	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Flour	296,9	334,1	327,9	365,1	400,4	34,9
Cereal groats	19,4	14,2	18,5	20,4	23,6	21,6
Fresh bread	134,1	126,1	121,3	121,1	126,5	-5,7
rye bread	59,9	59,0	55,8	54,2	51,2	-14,5
other bread	74,2	67,1	65,5	66,9	75,3	1,5
Pastry and confectionery	23,5	23,4	22,4	23,3	24,8	5,5

About 600 thousand tonnes of grain per year is used by the industry together with the population. For many years already these needs have changed a little. Consumption in 2014 was by about 7% lower than in 2010. Grain consumption for manufacture of feed has been also stable – about 1 million tonnes.

In 2014, compared to 2013, the average wholesale prices of the larger part of grain products went on decreasing as a result of the reduced grain purchase prices. Prices for semolina and buckwheat groats, however, were slightly higher (Table 2.12).

Table 2.12. Average wholesale prices of grain products in 2010-2014, EUR per tonne

Products	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Wheat flour	281	343	319	326	315	12,1
Rye flour	204	294	280	261	244	19,6
Wheat groats	251	371	323	311	276	10,0
Semolina	246	382	393	408	432	75,6
Buckwheat groats	807	1210	791	628	629	-22,1
Fresh bread	793	885	915	931	882	11,2
rye bread	770	872	904	956	914	18,7
other bread	813	896	925	912	862	6,0
Confectionery	2218	2364	2567	2923	2687	21,1

Source: Statistics Lithuania.

During the period of 2010–2014, the retail prices for all grain products, in particular of rye bread and loaf bread, went on increasing. Prices for wheat flour, pasta and buckwheat groats within this period have not almost changed (Table 2.13). In 2012–2014, purchase prices for grains went on decreasing, whereas prices of products manufactured of grains (flour, bread and loaf bread, pasta) reduced insignificantly.

Table 2.13. Average retail prices of grain products in 2010-2014, EUR per kg

Products	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Wheat flour, best quality	0,69	0,75	0,72	0,72	0,70	1,4
Rye bread	1,27	1,42	1,45	1,45	1,48	16,5
White bread made from wheat flour	1,46	1,58	1,58	1,61	1,62	11,0
Buckwheat groats	1,52	2,62	1,84	1,70	1,53	0,7
Pasta*	0,68	0,70	0,70	0,71	0,69	1,5

<sup>\*500</sup> g.

**Balance.** Over the period of 2010–2014, the resources of grain went on increasing every year and were higher by 78% (Table 2.14). About 28% of the total resources in 2014 were used for domestic needs. Grain consumption for feed, the human consumption, and needs in the industry changed a little. Therefore, export changes were highest, having increased by more than two times (110%) within 2010–2014.

Table 2.14. Balances of grain and grain products in 2010-2014, thousand tonnes

Indicators	2010	2011	2012	2013	2014*	Change 2014, compared to 2010,
Beginning stocks	1272,5	866,1	1255,1	2035,6	2040,5	60,4
Production	2867,2	3303,9	4736,5	4566,8	5324,1	85,7
Import**	294,2	408,9	477,0	425,4	530,0	80,1
Total resources	4433,9	4578,9	6468,6	7027,8	7894,6	78,1
Export**	1708,6	1475,0	2438,3	2930,5	3600,0	110,7
Domestic uses	1859,2	1848,8	1994,7	2056,8	2188,0	17,7
seeds	221,4	229,2	240,4	250,4	260,0	17,4
animal fodder	980,8	1036,1	1141,6	1197,3	1300,0	32,5
losses	52,8	51,5	54,0	52,2	65,0	23,1
industrial uses	242,7	179,2	203,9	206,0	210,0	-13,5
human consumption	361,5	352,8	347,1	350,9	353,0	-2,4
Per capita consumption, kg	117	117	116	119	120	2,6
Ending stocks	866,1	1255,1	2035,6	2040,5	2106,6	143,2
Self-sufficiency level, %	154	179	237	222	243	89***

<sup>\*</sup> LIAE calculations.

 $Source: Agriculture\ in\ Lithuania\ 2013.\ Vilnius:\ Statistics\ Lithuania\ , 2014.\ ISSN\ 2029-3658.$ 

<sup>\*\*</sup> In grain equivalent.

<sup>\*\*\*</sup> Percentage points.

Harvest yielded until 1999 was sufficient just to satisfy the needs of the national market, and in 2014 grain supply grew up to 243%. As compared to 2010, the harvest was higher by 85%, export by 2.1 times.

**Foreign trade in grain and grain products.** In 2014, as compared to 2013, export of cereal grains increased by 23% (Table 2.15). Two thirds of the yielded harvest was exported. In 2014, as compared to 2013, export to the EU countries increased by about 12%, whereas three fourths of grain was exported to other countries. Even 40% of the total grain export went to the Islamic Republic of Iran, 10% to Saudi Arabia, and 9% to Latvia. The average export price to the Islamic Republic of Iran, if compared to 2013, was by 20% lower.

Table 2.15. Exports of cereal grains and grain products in 2010–2014, thousand tonnes

Products	2010	2011	2012	2013	2014	Change 2014, compared to 2010,
Cereal grains	1379,5	1094,9	2051,8	2498,5	3075,0	123,0
of which:						
wheat	1123,1	807,7	1680,3	1931,5	2511,3	123,6
rye	20,8	26,6	81,3	30,0	17,8	-14,4
barley	154,0	204,3	101,6	278,4	320,5	47,3
Rapeseed	278,5	219,1	420,0	369,5	279,0	0,2
Milling products	159,8	185,1	190,2	213,1	206,3	108,1
of which:						
wheat flour	15,3	9,8	11,1	16,8	14,2	-7,2
rye flour	0,7	1,7	4,2	1,2	1,1	57,1
cereal groats	3,9	2,8	2,7	3,8	5,1	30,8

Source: Statistics Lithuania.

Export of milling products in 2014 dropped by 3.2%, whereas within 5 years (in 2014 as compared to 2010) it increased by 8.1%.

In 2014, the largest portion of exports of cereal grains (81%) consisted of wheat. The major portion of cereal grains (42%) was exported to the Islamic Republic of Iran. Most of barley (61%) was also shipped to Iran, rape seed to the Netherlands (58%).

Three fourths of the total exports of the products of the milling industry consisted of exports to the EU countries. The main market of exports in 2014 was Poland, with 27% of the total products of the milling industry exported to the EU being shipped to this country.

Imports of cereal grains in 2014 increased and amounted to 352.9 thousand tonnes (Table 2.16). This is by 8.7 times less than exports. In 2014, import of maize from the Ukraine comprised the major part (93% of the total import). Import of the milling products in 2014, as compared to 2013, went up by 8.8%.

Table 2.16. Imports of cereal grains and grain products in 2010–2014, thousand tonnes

Products	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Cereal grains	172,7	275,4	359,4	291,4	352,9	2,0*
of which:						
wheat	95,3	64,1	160,4	49,1	119,9	25,8
rye	23,9	41,3	64,5	11,2	13,9	-41,8
barley	8,8	68,1	34,5	55,9	37,3	4,2*
Milling products	50,0	64,8	53,7	58,8	64,0	28,0
of which:						
wheat flour	26,2	28,4	21,9	23,6	31,5	20,2
rye flour	3,2	4,9	10,3	13,1	12,4	3,9*
cereal groats	6,9	9,8	3,4	3,4	3,2	-53,6
Maize						

<sup>\*</sup> Times.

Forecast as regards the harvest of the main grain crops is optimistic. It is forecasted that the grain reserves in the world will further increase, this meaning that purchase prices may only go on reducing. This may be only impacted by the natural calamities in the main exporting countries.

#### 3.2. Milk

Milk production as the agricultural branch retained its importance in Lithuania, whereas its share in the total agricultural production in the past years has changed unevenly. From 2006 to 2011 it was higher than 20%, in 2012 and 2013 comprised correspondingly 19.5% and 19.7%, and in 2014 increased again to 20.9%. Reduction of milk production in the total agricultural production took place with the growth of milk production and procurement, even though the development of other agricultural branches was more rapid. Over the period of 2010–2014, the number of milk farms reduced by 34%, most of all of small farms. In 2010, farms, keeping less than 20 cows went on reducing, and in 2014 less numerous were farms with 30 cows. This shows that larger farms have better prospects to maintain themselves.

In February 2014, the highest purchase price of all times for milk was attained, while later it fell down suddenly. Milk processors reduced the milk purchase price, as milk product prices went on decreasing on the global markets, and since August Russia, where Lithuanian milk processing enterprises shipped almost one third of the exported milk products, imposed an embargo on import of food products. Due to the said reasons wholesale prices for milk products went on declining, whereas retail prices remained

stable and even augmented. Russia's embargo on import forced Lithuanian milk processors to search for new sales markets, thus expanding geographic coverage of exports.

**Milk production and procurement.** In 2014, milk yield amounted to 1790 thou. t, of which 80% was purchased for processing (Table 2.17). In comparison with 2013, milk production in 2014 went up by 2.8%, and compared to 2010 by 3.0%. Liquid milk purchase during 2014 increased by 7.1%, whereas within the five years it increased by 12%. The global economic crisis had a big impact on milk production and purchase volumes. Until 2014, milk production still has not attained the pre-crisis level of the year 2008. However, milk purchase in 2014 was by 4.3% higher than in 2008.

Table 2.17. Milk production and purchase in 2010-2014, thousand tonnes

Indicators	2010	2011	2012	2013	2014	2014, compared to 2010, %
Milk production	1736,5	1786,4	1778,1	1722,3	1790,0	103
Milk purchase						
natural fatness	1278,3	1317,1	1359,9	1339,4	1434,9*	112
basic fatness**	1540,4	1587,6	1638,0	1611,3	1730,0	112

<sup>\* 4,14 %</sup> milk fat, 3,28 % protein.

Sources: Agriculture in Lithuania 2013. Vilnius: Statistics Lithuania, 2014. ISSN 2029-3658.

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

<a href="http://www.vic.lt/?mid=348&limit=20&offset=0">http://www.vic.lt/?mid=348&limit=20&offset=0</a>.

Nearly all the milk yield is received from dairy cows. Goat milk during the period of 2010–2013 just accounted for 0.2% of the total produced milk. However, by physical weight the yield of goat milk in 2012 was by 10% less than in 2010.

Over 80% of milk is produced in farmers' farms and family farms, though the relative weight of agricultural companies and enterprises has been increasing gradually. In 2010, the latter produced 16% of milk and in 2013-19%.

Raw milk purchased in Lithuania is lacking for the processing enterprises; therefore, still more considerable amounts of milk are imported from other countries. Import of raw milk in 2014 reached 421.9 thousand tonnes and if compared to 2013 it increased by 4.8%, and in comparison with 2010 by 2.1 times. The key import countries are Latvia (69% of imported milk) and Estonia (31%). The average price of the imported raw milk in 2014 was 332 EUR/t. During 2014, raw milk exports amounted to 153.5 thousand tonnes. In comparison with 2013, exports of raw milk increased by 66%. The growth of export was owing to the fall in the purchase prices on the domestic market. Almost all raw milk was exported to Poland, just 0.2 t – to Afghanistan. The average price of the exported raw milk was 329 EUR/t. Compared to 2010, the amount of raw milk exported in 2014 was 6.5 times higher. The foreign trade balance of milk remained negative: in 2010 import was higher by 182 thousand tonnes than export, and in 2014 by 268 thousand tonnes.

<sup>\*\* 3,4 %</sup> milk fat, 3,0 % protein.

The average fatness of the purchased milk in 2010 was 4.15%, and protein content was 3.27%, in 2014, correspondingly, 4.14% and 3.28%. In 2010, 95.6% and in 2014, 97.5% of the total purchased milk complied with the EU veterinary and hygiene requirements.

The milk purchase price within the reference period varied, being higher or lower in some years. In 2013, the average purchase price for milk of basic indicators jumped up to 263 EUR/t and reached the record price of all times. In 2014, it dropped again by 12% to 232 EUR/t (Fig. 2.12). In 2014, in comparison with 2010, the purchase price for milk of basic indicators increased by 12%. The average price for liquid milk in 2014 was 280 EUR/t.

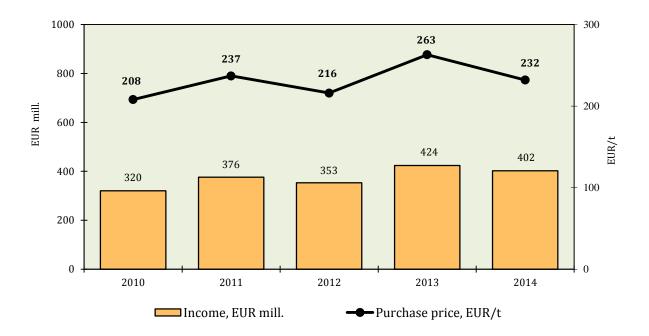


Fig. 2.12. Purchase price and income from sales of milk of basic indicators in 2010–2014

Sources: Agriculture in Lithuania 2013. Vilnius: Statistics Lithuania, 2014. ISSN 2029-3658.

Agricultural and Food Market Information System. Milk Sector, Domestic market. – AIRBC, [2015-04-24]. <a href="http://www.vic.lt/?mid=348&id=11599">http://www.vic.lt/?mid=348&id=11599</a>.

Tendencies of variation in milk purchase prices were similar to those in other EU countries, whereas the range of their fluctuations in Lithuania was more abrupt and more profound. In 2010, the annual average milk purchase price in Lithuania jumped up from the lowest position in the EU and was higher than in Romania. In 2013, in addition to Romania, Latvia was left behind. In 2014, the milk purchase price in Lithuania was again lowest in the EU (Fig. 2.13).

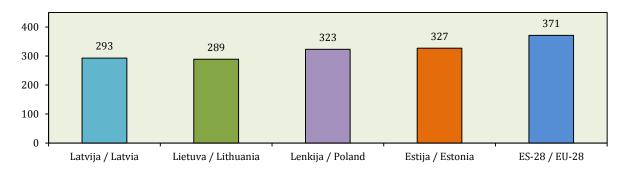


Fig. 2.13. Milk (natural fatness) purchase price in Lithuania and some other EU countries in 2014, EUR per tonne

Sources: Milk purchase prices – Statistics Lithuania [2015-04-30] http://osp.stat.gov.lt/statistiniu-rodikliu-analize1>; EU milk prices – GD Agri. DairyCo, [2015-05-06]. <a href="http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-dgagri/#.U1n3jbfNsdU>">http://www.dairyco.org.uk/resources-library/market-information/milk-prices-library/market-information/milk-information/milk-information/milk-inform

The average Lithuanian dairy farm is among the smallest in the EU countries. In 2012, the number of cows per farm was 4.5. Smaller average dairy farms were only in Romania (2 cows) and in Bulgaria (4 cows). Milk production farms, however, are becoming larger in Lithuania. In 2014, as compared to 2010, the average dairy farm increased by 37% to 5.2 cows.

The process of enlargement of an average dairy farm takes place to a great extent alongside with the decline of small farms. From 2010 to the end of 2014 the number of farmers keeping 1–29 cows reduced by 31186, or by 35%. Simultaneously, the number of farms with 30 and more cows increased by 146, or by 10%, and the number of cows kept here by 14% (Table 2.18).

Table 2.18. Dairy farms by number of cows in 2010 and 2014 (at the end of the year)

		2010	2014		
Number of cows per farm	number of number of cows, farms thou.		number of farms	number of cows, thou.	
1-2	69229	85,0	40633	52,0	
3–9	16415	75,6	14240	65,9	
10-19	3041	40,7	2643	35,8	
20-29	1042	24,8	1025	24,5	
30-49	742	27,8	811	30,8	
50-99	437	29,2	483	33,0	
>=100	230	62,2	261	71,5	
Total	91136	345,3	60096	313,5	
Average		3,8		5,2	

 $Sources: AIRBC\ [2015-04-16].\ \verb|\| chttp://www.vic.lt/uploads/file/07_ukiu111101_pagal_gyvus_karvs21.pdf|| in the continuous cont$ 

 $<sup>&</sup>lt;\!http://www.vic.lt/uploads/file/08\_ukiu111101\_pgl\_gy\_kar22.pdf\!>;$ 

 $<sup>&</sup>lt;\!\!http://www.vic.lt/uploads/file/07\_ukiu150101\_pagal\_gyvus\_karvs21.pdf\!\!>;$ 

<sup>&</sup>lt;a href="http://www.vic.lt/uploads/file/08\_ukiu150101\_pgl\_gy\_kar22.pdf">http://www.vic.lt/uploads/file/08\_ukiu150101\_pgl\_gy\_kar22.pdf</a>>.

From 2010 to the end of 2014 the number of dairy cows decreased by 45.8 thousand (Fig. 2.14). Their number was consistently decreasing throughout the whole reference period. In 2014, as compared to 2013, the number of cows reduced by 0.5%. The highest annual decrease rate in the number of cows within the reference period was in the year 2012 (5.3%).

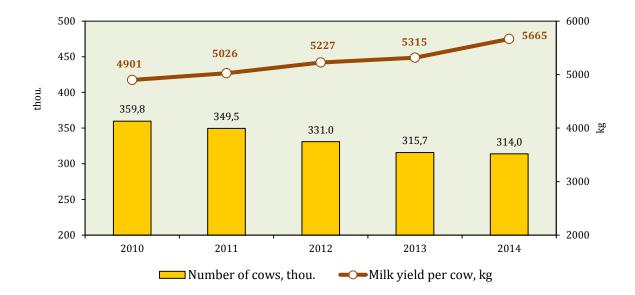


Fig. 2.14. Number of dairy cows and milk yield per cow in 2010–2014 (at the end of the year)

Source: Agriculture in Lithuania 2013. Vilnius: Statistics Lithuania, 2014. ISSN 2029-3658' Statistics Lithuania.

The average productivity per cow in Lithuania in 2014 was 5665 kg – by 16% lower than the average in the EU. The productivity of cows, however, within the reference period, has been increasing: in 2014, as compared to 2010, the milk yield per cow increased by 15.4%. The average milk yield of cows under control during the control period of 2013–2014 reached 6968 kg – by 3.0% more than in 2012–2013 and by 12.2% more than in 2009–2010. During the control period of 2013–2014, 45.5% 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 four groups of milk processing companies: Rokiškio sūris AB, Pieno žvaigždės AB, Žemaitijos pienas AB, and Vilkyškių pieninė AB. These groups of companies during the reference period of 2010-2014, generated about 73-80% of the total income from sales in the milk processing sector (in 2014 – 79 %). The said groups of companies are also the main exporters of dairy products. Other milk processing companies and their groups are smaller. Some of them, however, are also exporting the major part of their products.

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

The global economies reviving after the global crisis within the period of 2010–2014 created conditions for increasing dairy product sales (Table 2.19). Even though the supply increased on the global market and the Russian market got closed due to the political reasons, sales of dairy products and dairy products with vegetable oils (including ice-cream, lactose and casein) increased by 2.1%, and comparing with 2010 – by 41%. Export within the afore-mentioned five-year period increased by 65%.

Table 2.19. Key indicators of the milk processing industry in Lithuania in 2010–2014

Indicators	2010	2011	2012	2013	2014
Number of milk processing enterprises & subsidiaries	31	31	31	32	33
Sales of dairy products and dairy products with vegetable oils, EUR mill.	679,4	851,8	868,2	939,7	959,8
share in total output of the food industry, %	31	33	30	31	31
Export income of milk processing companies, EUR mill.	338,8	435,3	458,2	541,0	558,5
share in total income from sales of dairy products and dairy products with vegetable oils, %	<sup>d</sup> 50	51	53	58	58

Sources: Production of commodities 2010–2014. Vilnius: Statistics Lithuania. ISSN 1648-5777;
Industrial production - Statistics Lithuania.[2015-04-30]. <a href="http://osp.stat.gov.lt/statistiniu-rodikliu-analize1">http://osp.stat.gov.lt/statistiniu-rodikliu-analize1</a>;
State Food and Veterinary Service [2015-02-20]. <a href="http://vetlt1.vet.lt/vepras/">http://vetlt1.vet.lt/vepras/</a>.

The key area in the specialization of the milk processing industry in Lithuania is the production of cheeses. The production of the major part of dairy products within the period of 2010–2014 has increased, though not always evenly. Just the production of canned milk in any of the years within the reference period failed to reach the production level of 2010. In 2014, in comparison with 2010, most significantly increased the production of butter (92%) and not-processed cheeses (75%). The most considerable decline was noted in the production of canned milk – 35% (Table 2.20).

Table 2.20. Production of main dairy products in 2010-2014, thousand tonnes

Products	2010	2011	2012	2013	2014	2014, compared to 2010, %
Drinking milk	94,0	102,6	100,3	100,7	110,2	117
Sour milk, kefir	35,7	33,9	35,3	37,1	37,8	106
Yoghurt	14,4	14,6	16,6	19,7	19,5	135
Sour cream & mixes	27,8	28,3	29,1	27,9	27,1	97
Curd	24,4	26,5	28,2	27,4	24,1	99
Butter and other milk fats	8,5	8,7	10,6	11,5	16,3	192
Fresh cheese	24,0	24,8	40,1	35,3	42,1	175
Unprocessed cheese	43,9	46,8	49,3	51,4	37,8	86
Dried milk and whey products	36,6	39,2	39,0	41,2	49,3	135

Products	2010	2011	2012	2013	2014	2014, compared to 2010, %
Ice cream, mill. l	24,5	18,1	23,8	29,3	30,8	126
Canned dairy products	25,0	21,5	22,8	13,3	16,2	65

Sources: Production of commodities 2010–2014. Vilnius: Statistics Lithuania. ISSN 1648-5777.

**Domestic market in dairy products.** In Lithuania per capita consumption of milk and dairy products (in milk equivalent) in 2013, as compared to 2010, increased by 10%. During the period referred the consumption of certain dairy products, manufactured industrially, also went up. However, in 2014, as compared to 2013, the consumption of all products, except drinking milk, dropped (Table 2.21). This was impacted by a 5–8% increase in the retail prices for milk products. In 2014, as compared to 2010, growth in the retail prices for milk products surpassed wages increase. Thus the purchasing power of the average monthly net wages by separate dairy products went down by 8–36%.

Table 2.21. Changes in consumption of milk and dairy products and underlaying factors in 2010–2014

Products	2010	2011	2012	2013	2014	2014, compared to 2010, %				
Per capita consumption of milk and dairy products <sup>1</sup> , kg,										
Milk and dairy products (in milk equivalent)	278	302	303	307	n. d.					
Cheese <sup>2</sup>	16,4	17,0	18,7	20,4	17,3	105				
Butter <sup>2</sup>	3,6	3,7	4,3	3,9	3,0	83				
Sour milk products <sup>2</sup>	27,5	28,7	29,5	31,1	28,8	105				
Drinking milk <sup>2</sup>	29,5	30,1	31,5	32,5	33,2	113				
Purchasing power of average monthly net wages and salaries										
Butter, kg	78	81	71	72	72	92				
Sour cream, 20–30 % fat content, kg	276	253	176	177	176	64				
Curd, 5–9% fat content, kg	148	130	133	132	132	89				
Milk, 2,5% fat content, l	773	658	658	694	675	87				
Average retail price of m	ilk and	dairy pr	oducts,	EUR/kg						
Butter	5,77	5,68	6,76	6,96	7,31	127				
Milk, pasteurised, 2,5% fat content, EUR/l	0,58	0,70	0,73	0,72	0,78	134				
Sour cream, 20-30 % fat content	1,63	1,82	2,72	2,83	3,00	184				
Curd, 5–9% fat content	3,05	3,55	3,60	3,78	3,98	130				

 $<sup>^{1}</sup>$  Statistical indicators have been revised using population figures recalculated on the basis of the results of the 2011 Population and Housing Census of the Republic of Lithuania.

Sources: Production of Commodities 2010–2014. Vilnius: Statistics Lithuania. ISSN 1648-5777;
Economic and Social Development in Lithuania, Latvia and Estonia 2010–2014. Vilnius: Statistics Lithuania. ISSN 2029-5936;
Agriculture in Lithuania 2013. Vilnius: Statistics Lithuania, 2014. ISSN 2029-3658;
Main Indicators of Economic and Social Development.2015/01. Vilnius: Statistics Lithuania. ISSN 2029-364X [2015-05-04].
http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=17860.

<sup>&</sup>lt;sup>2</sup> Own-produced and consumed products and direct sales excluded.

The overall Lithuanian wholesale market of dairy products in 2014 amounted to EUR 510 million. In comparison with 2010, it augmented by 29%. The major part of dairy products sold on the domestic market is manufactured in Lithuania. Nevertheless, the share of imports has a tendency towards increasing. In 2010, the imported dairy products accounted for 13.6 % of the total dairy products sold on the Lithuanian market (excluding raw milk imports), and in 2014 – 21.3%. Cheese, fermented and acidified dairy products, and concentrated milk products are dominating in the structure of imports of dairy products. In 2014, the amount of imported dairy products (including ice-cream, lactose and casein, but excluding raw milk) totalled EUR 108.7 million, or was 2 times higher than in 2010. With an increase in the sales of imported dairy products, the volumes of products sold by Lithuanian producers of dairy products on the domestic market, which went on increasing until 2012, decreased in 2013 by 2.8%, it almost has not changed in 2014 and constituted EUR 401.3 million.

Wholesale prices for dairy products sold by Lithuanian producers on the domestic market went on rising from 2010 to June 2014, except for April–September 2012. Later until the end of 2014 they were dropping. During the year 2014, wholesale prices went down by 8.1%, but in spite of this fact, in December 2014, as compared to December 2009, wholesale prices for dairy products, sold by Lithuanian producers on the domestic market, have increased by 25.5%.

**Export of milk and milk products.** Balance of Lithuania's foreign trade in milk and milk products in 2010–2014 was positive: in 2010 exports surpassed imports by EUR 291.1 million, and in 2014 – by EUR 341.2 million. The growth rate of imports, however, excelled exports: within the period of 2010–2014 imports increased 2 times, exports by 46%.

Exports of milk and milk products went on increasing within the period under analysis. In 2014, exports of milk and milk products (including ice-cream, lactose and casein) amounted to EUR 615.7 million. Cheese and curd accounted for 42% of the total exports, not concentrated cream and skimmed milk powder – 13% each. The still increasing shipment of raw milk reached 8.2% of the total exports of milk and milk products. In 2014, as compared to 2010, most of all increased exports of butter (3.9 times), fermented and acidified milk products (3.5 times), and ice-cream (2.1 times). Exports of whole milk powder and condensed milk decreased (Table 2.22).

Table 2.22. Exports of milk and dairy products in 2010-2014, EUR million

CN code	Products	2010	2011	2012	2013	2014	2014, compared to 2010, %
0401	Milk & cream, not concentrated	84,4	120,5	104,4	142,9	140,1	166
0402	Milk & cream, concentrated	74,2	60,4	83,8	82,0	93,0	125
040210	Skimmed milk powder	43,8	39,4	58,5	66,4	79,5	182
040221	Whole milk powder	8,4	3,0	7,2	2,5	0,5	6
040291	Condensed milk without sugar	12,3	6,49	6,2	1,2	3,2	26
040299	Condensed milk with sugar	9,7	11,4	11,8	11,9	9,6	99
0403	Fermented or acidified milk & cream	4,8	10,7	15,3	20,3	16,7	348

CN code	Products	2010	2011	2012	2013	2014	2014, compared to 2010, %
040310	Yogurt	0,8	3,8	7,2	9,9	8,1	101
0404	Whey & products consisting of natural milk constituents	24,1	27,6	33,4	43,0	31,8	132
0405	Butter & other fats & oils derived from milk, dairy spreads	9,7	10,7	17,0	24,1	37,4	386
0406	Curd & cheese	207,4	235,6	276,3	270,6	255,9	123
040610	Fresh cheese & curd	85,1	96,5	126,4	123,7	121,3	143
040690	Other cheese	120,7	135,5	145,4	141,3	129,5	107
210500	Ice cream	12,3	13,4	15,8	21,4	26,3	214
350110	Casein	0,01	0,09	0,0	0,06	0,7	7000
170211-19	Milk sugar	5,2	12,8	15,6	13,7	14,4	277

Source: Statistics Lithuania.

In 2014, the main countries for export of dairy products remained the EU countries and Russia. However, as a result of an embargo on food products, announced in August by Russia, the share of milk and milk products exported to this country reduced noticeably: from 30% in 2010 to 18% in 2014 (Fig. 2.15). The share of milk and milk products exported to the EU countries also decreased by 6 percentage points. Searching for new markets for the products which were earlier exported to Russia, larger amounts of dairy products began to be shipped to the countries which previously constituted a very small share as well as to new markets.

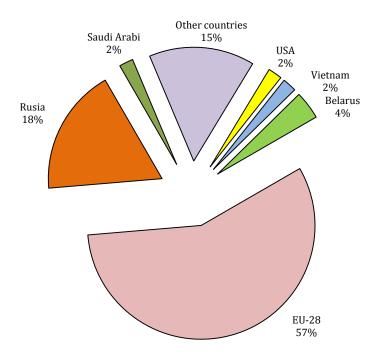


Fig. 2.15. Structure of the export of milk and dairy products by country group in 2014

Source: Statistics Lithuania.

Fluctuations in the prices of exported dairy products in the period of 2010–2014 occurred periodically. 2014 was the year of a price drop: prices for exported milk and milk products decreased by 15.4% in December 2014 as compared to December 2013. The long-term tendency, however, shows a rise in prices. In December 2014, comparing to December 2009, prices for exported milk and milk products increased by 28%.

**Market regulation measures.** In Lithuania, like in the entire EU, the common market organization measures for milk and milk products as well as milk production quota system were operating.

In 2004, the total amount of national milk production quota of 1647 thousand tonnes was approved for Lithuania: 1280 thousand tonnes of sales for processing and 367 thousand tonnes for direct consumption. Since the quota period of 2006–2007 (the quota year starts on 1 April and continues until 31 March of the following year) it has been increased by 57.9 thousand tonnes from the quota year of 2008–2009 by 2 % – up to 1739 thousand tonnes, each subsequent year being augmented by 1 %. The granted quota is sufficient and does not restrict the commercial milk production (Table 2.23).

Table 2.23. Fulfilment of national milk production quota in 2009–2015, per cent

Quota year	Quota for processing	Quota for direct consumption
2009-2010	77	61
2010-2011	78	58
2011-2012	80	54
2012-2013	79	51
2013-2014	79	50
2014-2015	85*	n. d.

<sup>\*</sup> Forecast.

Source: AIRBC [2015-04-28]. <a href="http://www.vic.lt/?mid=414">http://www.vic.lt/?mid=414</a>>.

EUR 34 million of additional decoupled national direct payments was distributed and additionally EUR 31 million of EU payments was paid to milk producers who suffered from the milk sector crisis for quota milk sold in 2009–2010. EUR 19.2 million of the transitional period national support and additionally EUR 28.11 of the temporary support to milk producers who suffered losses from an import embargo imposed on milk products by the Russian Federation was calculated for quota milk sold in 2013–2014 quota year.

Of the common market organization measures for milk and milk products, export refund and intervention purchases were used in the period 2010–2014. In 2010 export refund paid amounted to EUR 0.98 million and in 2011 to EUR 0.001 million. In 2012–2014, with an increase of prices for milk products in third countries, export refund payments were not paid.

In 2010–2011, the milk processing enterprises took advantage of intervention purchases. In 2010, 12.18 thousand tonnes of intervention dairy products and in 2011 – 6.0 thousand tonnes of intervention dairy products were purchased to intervention warehouses.

**Economic indicators.** Over the period of 2010–2013 milk production at specialized dairy farmers' farms was profitable; since the subsidies helped to avoid losses. According to the data of the Farm Accountancy Data Network, the profitability (net profit and subsidies per one Litas of sales income) at farmers' farms, the main revenue thereof was income derived from milk, totalled 56% in 2010, and subsidies exclusive – 6.7% of losses. In 2013, the profitability dropped to 36%, subsidies inclusive, and 17% of losses, subsidies exclusive, were suffered.

Milk production was one of the most profitable branches of farming at agricultural companies and enterprises (Fig. 2.16). The gap from the average profitability of agricultural production sales in 2011 reached even 14.7 percentage points. In 2012, for the first time from the year 2000, the average agricultural production profitability has outperformed the milk production profitability by 2.6 percentage points; however, in 2013, the milk production profitability by 9.6 percentage points again was ahead of the gross agricultural production profitability.

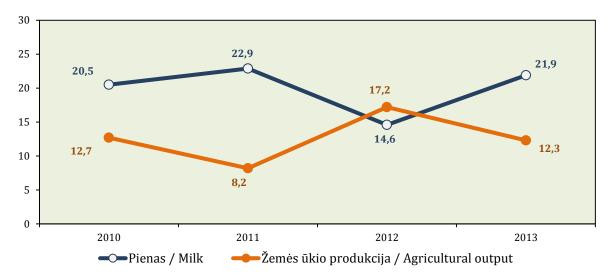


Fig. 2.16. Profitability (without subsidies) of milk and total agricultural output in agricultural companies and enterprises in 2010–2013, per cent

Sources: Official statistical forms of agricultural companies and other agricultural enterprises 2010–2013. – AIRBC [2015-05-04]. <a href="http://www.vic.lt/?mid=533">http://www.vic.lt/?mid=533</a>.

Fluctuations in milk purchase prices had the major impact on the profitability of milk production in 2010–2013. A decline in milk purchase prices conditioned a decrease in the milk production profitability in 2012. The gross agricultural production profitability in the afore-mentioned period went up due to the evidently increased purchase prices for cereals. The average cost price of sold milk production in agricultural companies and enterprises in 2010 amounted to 185 EUR/t, if calculated by reckonable weight, and in 2013 increased to 137 EUR/t, i.e. by 28%. The cost price of liquid milk in 2013, compared to 2010, increased less – by 18%

The operation of the four major groups of Lithuanian milk processing enterprises, enrolled in the lists of the Vilnius Stock Exchange, was profitable during the period of 2010–2014 (Table 2.24). In 2014, the profitability, comparing with the preceding four years, declined and reached 1.4%.

Table 2.24. Net profitability of major dairy enterprises in 2010-2014, per cent

Indicator	2010	2011	2012	2013	2014
Net profitability	4,0	3,1	3,9	3,1	1,4

Source: NASDAQ OMX, [2015-04-24]. <a href="http://www.nasdaqomxbaltic.com/market/?pg=reports">http://www.nasdaqomxbaltic.com/market/?pg=reports</a>.

In 2010–2012, the profitability of the processing enterprises got increased due to the increased global prices for milk products. In 2013, a certain impact on the profitability had the banned export of milk products to Russia at the end of the year, and in 2014 – the reduced prices for exported milk products and an import embargo on food products announced by Russia in August.

## 3.3. **Meat**

The year 2014 was full of change in the meat sector. At the beginning of the year a pig plaque was recorded in the country; and from autumn an import embargo on meat was imposed by Russia. Losses were not avoided either. In the summer, 20 thousand of pigs were liquidated in one of the pig complexes in the Ignalina district, and in the autumn, as a result of the surplus of animals, purchase prices dropped by one third. Since 2014, a priority that was established by the national government for livestock-breeding made it possible to handle the existing problems more flexibly, to motivate additionally animal breeders and to search for new global sales markets.

**Livestock-breeding.** Over the period of 2010–2014, the number of cattle, dairy cows, and pigs went on decreasing, whereas the number of poultry and sheep got increased (Table 2.25). The number of pigs decreased by almost one fourth and the number of sheep increased more than twice.

Table 2.25. Number of livestock and poultry in 2010–2014 (at the end of the year), thousand

Kind of animals	2010	2011	2012	2013	2014	Change 2014, compared to 2010, %
Cattle	748,0	752,4	729,2	713,5	736,7	-1,5
of which dairy cows	359,8	349,5	331,0	315,7	314.0	-12,7
Pigs	929,4	790,3	807,5	754,6	714,2	-23,2
Poultry	9466,3	8921,2	9085,6	9761,6	10218,4	7,9
Sheep	58,5	60,4	82,8	99,6	123,8	111,8

Source: Statistics Lithuania.

Cattle. During the period of 2010-2014, the number of cattle decreased by 1.5% and of dairy cows by 12.7%, whereas the number of beef cattle and cross-bred cattle breeds increased even by 60%. At the end of the year, they accounted for 19% of the total number of cattle. According to AIRBC data, as at the end of the year 2014, cattle was raised in 71.2 thousand farms, i.e. almost by one-third less than five years ago (Table 2.26). The average size of a farm is still very small. On the average, 10.3 head of cattle were raised per farm (in EU countries – 34). The smaller farms are just in Romania and Bulgaria. The largest number of cattle is raised by Šilalė, Šilutė and Kelmė farmers. The average largest farms are in Pagėgiai, Pakruojis and Kėdainiai regional municipalities.

Table 2.26. Farms by number of cattle in 2010 and 2014 (at the end of the year), thousand

Number of cattle per	20	10	20	14
farm	number of farms	number of cattle	number of farms	number of cattle
1-2	64,3	86,3	33,0	46,8
3–5	21,0	77,5	17,3	64,8
6-10	9,3	70,0	9,5	72,4
11-20	5,3	76,4	5,5	78,2
21-30	1,8	44,3	1,9	47,3
31-50	1,6	60,7	1,7	65,6
51–100	1,0	72,7	1,4	94,9
101-150	0,3	36,2	0,4	51,2
>=151	0,4	161,1	0,5	210,0
Total	105,0	685,2	71,2	731,2
Average		6,5		10,3

Source: AIRBC data.

In Lithuania within the period of 2010–2014, the number of farms where up to 5 head of cattle are kept decreased by one third. The average size per farm in 2014 (10.3 head) was by 58% higher than in 2010.

In Lithuania within the period of 2010–2014, the number of pedigree beef cattle increased by 1.5 times. At end of 2014, in Lithuania, 25.6 thousand head of pedigree beef cattle and 140.4 thousand head of cross-bred cattle breeds were raised. Of pedigree cattle, most popular are Limousine, Charolais and Aubrac breeds. Cross-bred cattle breeds, however, are raised most numerously. The largest number of beef cattle is raised by Šilalė, Šilutė, Kelmė and Alytus farmers. The average beef cattle farm keeps 5.5 head of cattle.

*Pigs.* By the end of 2014 in Lithuania 715.2 thousand of pigs were raised, of which pedigree sows comprised 56.4 thousand (Table 2.27). In 2014, pig breeders raised about 1.2 million pigs, of which 281 thousand were exported and 1035 thousand were slaughtered. Within the period of 2010–2014, the number of pigs decreased by almost one fourth. From the beginning of 2014 the African pig plaque that has got from Belarus was fixed in Lithuania. In 6 districts of the buffer zone (at the Belarus border) pig breeding was banned. Losses were not avoided – in July 20 thousand of pigs were slaughtered in the Ignalina district. From the beginning of the year, pig export from the

buffer zone was restricted. The number of pigs during the year dropped by about 5%. Two thirds of pigs are raised in the companies and enterprises. Meanwhile, the number of pigs raised by farmers during 2006–2014 decreased twice. Three fourths of the farms possess pigsties for more than 1 thou. pigs. The average largest farms in this group are in Romania and Lithuania. By pig number per area unit Lithuania is among the countries rearing the least number of pigs.

Table 2.27. Number of pigs in 2010 and 2014 (at the end of the year), thousand

Group of pigs	2010	2014	Change 2014, compared to 2010, %
Pigs, total	929,4	715,2	-23,0
piglets, up to 20 kg	171,9	124,5	-27,6
piglets, 20–50 kg	247,7	192,7	-22,0
fattening pigs, 50–80 kg	211,5	160,5	-24,1
fattening pigs, 80–110 kg	158,3	118,4	-25,2
fattening pigs, over 110 kg	56,5	60,9	7,8
pedigree sows	82,1	56,4	-31,3
boars	1,4	0,8	-42,9

Source: Statistics Lithuania.

*Sheep.* Their number is increasing every year. According to the data of the AIRBC, at the end of 2014, 123.8 thousand of sheep were raised in 7.1 thousand farms. Over the period of 2010–2014, the number of sheep increased by 2.2 times (Table 2.28). This growth was encouraged not only by a new procedure of direct payments for grasslands on infertile soils, but also due to the support for acquisition of pedigree sheep.

Table 2.28. Farms by number of sheep in 2010 and 2014 (at the end of the year)

N 1 61 6	20	)10	20	2014		
Number of sheep per farm	farms sheep		farms	sheep		
1–2	1857	2683	2280	3445		
3–5	1083	4047	2191	8465		
6–10	590	4438	1711	13101		
11–20	401	5863	1363	19916		
21–30	183	4613	543	13512		
31–50	177	6869	431	16750		
51–100	95	6536	246	16976		
101–150	25	3084	62	7570		
>=151	40	17116	58	24083		
Total	4451	55249	8885	123818		
Average		12		14		

Source: AIRBC data..

According to the data of the Department of Statistics, during 2014 the number of slaughtered sheep amounted to about 27 thousand, of which 82% of sheep were slaughtered in domestic slaughterhouses. The major number of sheep is raised by farmers in Anykščiai, Alytus, Molėtai, Telšiai and Zarasai districts.

**Poultry.** By the end of 2014 the number of poultry raised in Lithuania amounted to 10.2 million, of which hens accounted for almost 99% (Table 2.29). Laying hens comprised one third. Within the period of 5 years the number of hens got increased by 11.8%, and the number of laying hens dropped by 11.4%. The numbers of turkeys, geese and ducks dropped by half.

Table 2.29. Numbers of poultry in 2010 and 2014, thousand

Poultry	2010	2014	Change 2014 compared to 2010, %
Hens, total	9025,4	10093,1	11,8
Laying hens	3823,1	3386,8	-11,4
Geese	29,9	10,1	-66,2
Ducks	31,8	18,7	-41,2
Turkeys	213,3	85,5	-55,8
Other	8,2	10,9	32,9
Total	9308,7	10218,4	9,8

Source: Statistics Lithuania.

**Meat production.** By preliminary data, animal and poultry carcass meat produced in 2014 in all farms amounted to 246.4 thousand tonnes. As compared to 2013, the larger amount of poultry and bovine meat was produced (Table 2.30).

Table 2.30. Meat production (carcasses) in 2010–2014, thousand tonnes

Kind of meat	2010	2011	2012	2013	2014*
Meat, total	221,2	224,0	231,2	243,8	246,4
of which:					
pig meat	86,1	88,5	92,8	101,5	98,0
poultry meat	81,1	83,9	88,3	95,8	99,3
beef	52,3	50,2	48,6	45,3	47,9
sheep meat	0,7	0,6	0,7	0,8	0,8

<sup>\*</sup> LIAE calculation.

Source: Agriculture in Lithuania 2013. Vilnius: Statistics Lithuania, 2014. ISSN 2029-3658.

In 2014, the volume of purchased animals and poultry amounted to 268.7 thou. t (live weight), by 2.6% more than in 2013. The results would be better if no pig plaque and Russian embargo have occurred.

In 2014, 141 thousand head of cattle (by 5.6% less than in 2013) were purchased. Due to the cattle surplus in the 2nd half of the year, the average purchase price for cattle was by 12% lower than in 2013 (Fig. 2.17).

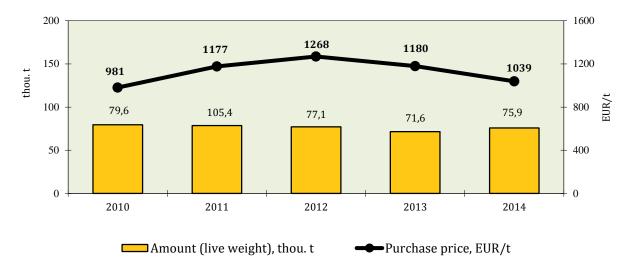


Fig. 2.17. Amounts purchased and average prices of cattle in 2010–2014

Sources: Data of Statistics Lithuania and AIRBC.

Cattle purchase prices almost in all EU countries were lower than a year ago. Prices in Estonia, Latvia and Finland went down most of all. Among the EU countries, cattle purchase prices in Lithuania were among the lowest (Fig. 2.18). By the end of the year, the purchase price of Class O2 bulls in Lithuania was by one fourth lower than the average price in the EU countries and has outrun prices only in Latvia, Estonia and Hungary. For the second year the purchase price in the autumn period in Lithuania is declining, and the supply is considerably higher than the demand. No such fluctuations in other countries are observed.

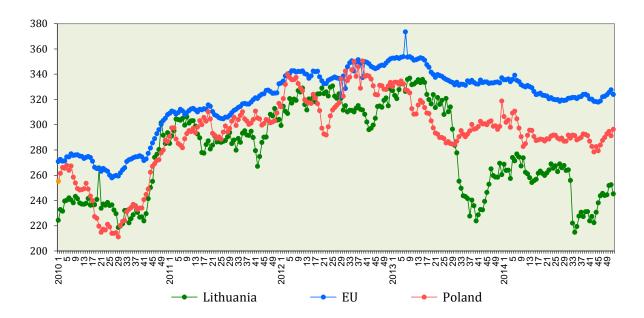


Fig. 2.18. Purchase prices of beef (carcass grade O2) in Lithuania, Poland and EU average in 2010–2014, EUR per 100 kilogram

Source: EC data.

The number of calves born within the period of 2010-2014 (Fig. 2.19) is almost stable, about 305 thousand head on average. The farmers and companies export 37% of calves annually. If not for exports, the high surplus of cattle could have been formed on the market. In 2014, the major part of calves was purchased by the Netherlands (45%) and Spain (19%).

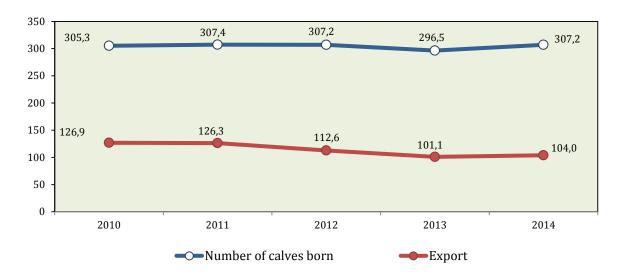


Fig. 2.19. Number of calves born and their export in 2010–2014, thousand  $\it Source: AIRBC data.$ 

During 2014, slaughterhouses and meat processing enterprises purchased 653 thousand of pigs (by 1.5% less than in 2013) raised in the farms. In 2014, the average purchase price of live pigs was by 11% lower than in 2013 (Fig. 2.20).

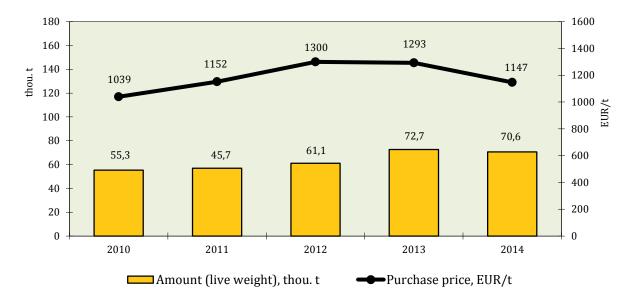


Fig. 2.20. Amounts purchased and average prices of pigs in 2010–2014 *Source: Statistics Lithuania.* 

A drop in the purchase price of pigs struck all the EU countries. The price tendencies on the Lithuanian market and the EU countries are similar (Fig. 2.21). In the EU countries in December 2014 the average purchase prices of Grade E pig carcasses were by 21% lower than in 2013. Such reduction was determined by pig plaque in Poland, Lithuania and Latvia, as well as by Russia's embargo. The highest purchase prices for Grade E pigs were in Malta, Cyprus, and Greece, the lowest prices in the Netherlands, Belgium, and Poland. In Lithuania the purchase price of pigs (Grade E) was by 1.4% higher than the EU average, this being not characteristic of other agricultural products. This may be explained by the insufficient local supply of pigs; therefore, more than half of pig meat, consumed in Lithuania, is imported from Poland, Belgium, the Netherlands, and Germany.

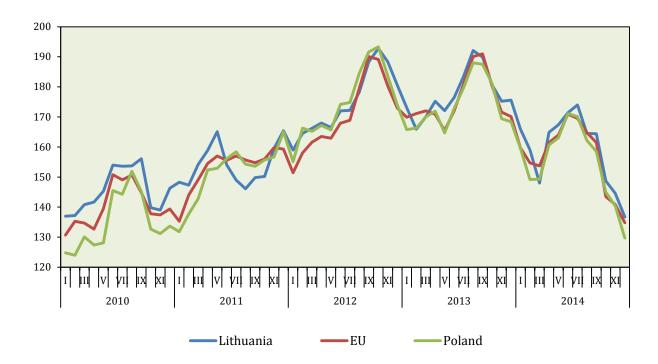


Fig. 2.21. Purchase prices of pigs (carcass grade E) in Lithuania, Poland and EU average in 2010–2014, EUR per 100 kilogram

Source: EC data.

In 2014, 48.2 million head of poultry was slaughtered (by 2.9% more than in 2013). In 2014, the average purchase price was by 7% lower than in 2013 (Fig. 2.22). In 2014, in the EU, the average price of chicken meat (the main portion of poultry) was by 2% lower than in 2013. The price for this meat has not dropped only in the United Kingdom, Germany, the Netherlands, and Cyprus. As compared to the EU average, chicken meat in Lithuania was cheaper by 23.2%. Our country was among those where chicken meat price has dropped most of all. Our country in this aspect was outrun only by Romania, Italy, the Czech Republic, Portugal, and Slovakia.

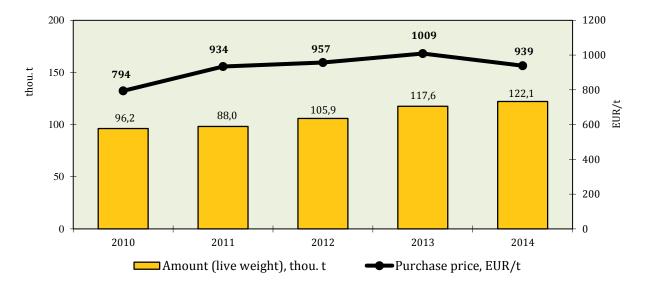


Fig. 2.22. Amounts purchased and average prices of poultry in 2010–2014 *Source: EC data..* 

**Domestic market.** In 2014, 285.7 thousand tonnes of meat and meat products were sold in the domestic market for EUR 0.6 billion (Table 2.31). Within the period of 5 years no substantial changes in this group of food products occurred. Almost half of the sales consist of unprocessed meat and poultry. We consume almost just the products of local make. Only about 7% of products are imported. During the period of 2010–2014, meat consumption increased by 10%.

Table 2.31. Sales of meat and meat products in the domestic market in 2010 and 2014

Duodusta	2	010	2014		
Products	thou. t	EUR mill.	thou. t	EUR mill.	
Meat and sub-products	123,1	187,1	104,3	201,9	
Poultry meat and sub-products	45,3	62,7	59,5	91,9	
Meat products	97,4	222,6	102,2	262,5	
Imported meat products	20,1	32,2	19,7	40,1	
Total	285,9	504,6	285,7	596,4	

Source: Statistics Lithuania.

According to LIAE calculations, in 2014, per capita consumption in Lithuania was 77 kg of meat and meat products (including Category I and II offal) (Table 2.32). Pork and poultry meat remain the mostly consumed sorts of meat, even though half of pig meat is imported

Table 2.32. Per capita consumption of meat products in 2010-2014, kilograms

Meat by kind	2010	2011	2012	2013	2014*
Meat, total	70	69	73	77	77
of which:					
beef	4	4	4	4	3
pork	41	42	44	47	49
poultry	21	21	23	23	23
sub-products, category I and II	3	2	2	3	2

<sup>\*</sup> LIAE calculation.

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

According to the 2012 data by the European Commission, the average meat consumption in the EU was 81 kg. Lithuanians consumed more pork (EU - 40 kg), poultry meat - similarly, as in the EU (EU - 24 kg), but substantially less (EU - 15 kg) bovine meat.

**Foreign trade.** In 2014, the balance of Lithuanian foreign trade in meat and animals was positive (Fig. 2.23). However, export and import volumes per year decreased by about 12% in the essence due to an embargo imposed by Russia Over the period of 2010–2014, export of poultry meat and pork as well as meat products (sausages, canned meat) increased by 2 times, whereas that of bovine meat has not changed.

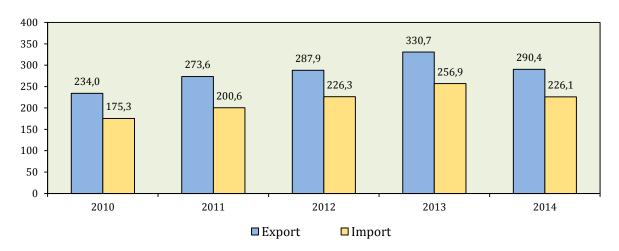


Fig. 2.23. Foreign trade in meat and livestock in 2010–2014, EUR million *Source: Statistics Lithuania.* 

Export of poultry meat in 2014 made the major portion (Table 2.33). Bovine meat was mostly purchased by Russia (28%), Italy (17%), and the Netherlands (11%). Pork was exported to Latvia (39%), Poland (15%), and Georgia (15%), and poultry meat to the Netherlands (30%), Latvia (13%), and Estonia (13%). Of live animals exported the major part belongs to pigs (55% of income) and cattle (36%), of which 71% are calves up to 8 months.

Table 2.33. Meat exports by kind in 2010–2014, thousand tonnes

Meat by kind	2010	2011	2012	2013	2014**
Meat, total	87,3	110,0	118,6	128,1	127,6
of which:					
beef	31,7	31,1	30,0	25,4	30,0
pork	15,3	23,2	27,6	35,7	26,7
poultry	29,1	35,9	44,3	50,9	55,5

<sup>\*</sup> Meat products in meat equivalent.

Sources: Agriculture in Lithuania 2014. Vilnius: Statistics Lithuania.. ISSN 2029-3658; Data of Statistics Lithuania.

Nearly two thirds of meat imports consisted of pork (Table 2.34). In 2014, it was bought from Poland (30%), Belgium (21%), and Germany (20%). In 2014, 72% of poultry meat was imported from Poland.

Table 2.34. Meat imports by kind in 2010–2014, thousand tonnes

Meat by kind	2010	2011	2012	2013	2014**
Meat, total	114,5	128,4	131,7	141,1	134,6
of which:					
beef	3,4	3,4	2,3	2,4	1,8
pork	78,5	83,2	85,4	90,6	85,3
poultry	21,6	25,2	32,3	35,0	35,1

<sup>\*</sup> Meat products in meat equivalent.

Sources: Agriculture in Lithuania 2014. Vilnius: Statistics Lithuania.. ISSN 2029-3658; Data of Statistics Lithuania.

The national livestock-breeding sectors are becoming less attractive in the farmers' activities. Considerable investments, labour expenditures for animal care and environmental protection are partly needed for business creation. Special place in the meat sector should be devoted to the development of pig breeding. This is the only branch of agriculture, where pig breeding in the village is becoming not popular. Now two thirds of pigs are being raised by agricultural companies and enterprises.

Just about 1 million of pigs are raised annually in Lithuania, whereas pig meat consumption is higher by half. This means that Lithuania every year pays about EUR 150 million to foreign pig breeders. Grain is cultivated and exported whereas some part of grain could be used for this purpose. A good system of incentives is needed for the development of this business by using the EU structural funds to a maximum.

<sup>\*\*</sup> LIAE calculation.

<sup>\*\*</sup> LIAE calculation.

## **SUMMARY**

In 2014, as compared to 2013, the value of gross agricultural output (at constant prices) dropped by 5.6% (provisional data). The decline was driven by decrease in purchase prices of good global harvest of cereal and vegetables and by the increased supply due to the Russian embargo on import from the EU. In the last year purchase prices of agricultural products went down by 7.5%.

In 2014 the export of agricultural and food products totalled EUR 4.7 billion (by 0.7% less than in 2013), while the import amounted to EUR 3.7 million (by 0.6% less). Starting 2004 (when Lithuania joined the EU) the balance of foreign trade in agricultural and food products was positive. But in 2014, as compared to 2013, it dropped by EUR 11 million and totalled EUR 963 billion.

Aiming to increase the competitiveness of agriculture, to support farmers' income, to reduce social disjuncture between rural and urban population, to save the environment, the economic entities are supported from the EU and national budgets. In 2014 the funds for agriculture made up EUR 875.1 million.

In 2010–2014 the number of agricultural entities by category was changing unevenly. In 2014, as compared to 2010, the number of registered family farms went up by 2.4% and, as compared to 2013, increased by 0.4%. The average farm size of agricultural entities that declared UAA in 2014 was 19.9 ha, or by 7.6% larger than in 2013 and by 27.6% more than in 2010.

In 2014 the certified organic area in Lithuania occupied 168 thousand hectares, or was by 12.5% larger than in 2010. The average size of a certified farm (including fishery farms) increased from 66.7 ha (in 2013) to 68.3 ha (in 2014).

The composition of the total land area by its intended purpose was almost stable. The largest share occupied agricultural land (53.1%) and forests (34.0%).

Changes in rural employment structure should be considered as the most important event of recent years in Lithuania's rural life. In 2010, 29.3% of rural working population were employed in agriculture, forestry and fisheries, but lately, when the economic situation has improved, the share of population employed in agriculture has went down while the share of population involved in services has augmented. In 2014, 28.8% of the employed rural population were involved in agriculture, forestry and fisheries.

In 2014, as compared to 2013, the number of SMEs in rural areas increased by 11.7% and reached 12.1 thousand (nearly 80% of which made up micro-enterprises). Rural SMEs employed 108.3 thousand or almost a third of the total rural working population.

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