LITHUANIAN INSTITUTE OF AGRARIAN ECONOMICS

AGRICULTURAL AND FOOD SECTOR IN LITHUANIA

2012

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An analytical review of the Lithuanian agricultural and food sector over the period of 2008–2012. "Agricultural and Food Sector in Lithuania 2012" 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

AB – Joint Stock Company

AIRBC - Agricultural Information and Rural Business Centre

AFMIS – Agricultural and Food Market Information System

AWU – annual working unit

CAP – Common Agricultural Policy

CN – combined nomenclature

CNDP - complementary national direct payment

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

FADN - Farm Accountancy Data Network

GVA - gross value added

LIAE – Lithuanian Institute of Agrarian Economics

LTL – Lithuanian Litas

MRM - market regulatory measures

RDP – Rural Development Programme

SME - small/medium-sized enterprise

UAA - utilized agricultural area

WTO - World Trade Organisation

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FOREWORD

The publication "Agricultural and Food Sector in Lithuania 2012" is the fourteenth 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, the census of agriculture, accountability data of companies, and the findings of research conducted by the LIAE staff.

The year 2012 was one of the most successful for the Lithuanian agricultural and food sector within the entire period under analysis. Due to good climatic conditions, the volumes of manufacture of a major part of agricultural products, especially grain, increased, and purchase prices went up. The gross agricultural output, if calculated at comparable prices, increased by 13.8 percentage points as compared to 2011. In 2012 the Lithuanian agricultural and food sector increased export even by 26.9%. Balance of foreign trade in agricultural and food products has been positive since 2004. In 2012 it was by LTL 1391 million higher than in 2011 and amounted to LTL 3388 million. National agricultural development was encouraged by the European Union (EU) and national budget support. In 2012 the share of the funds in the Lithuanian budget, assigned for financing of direct and investment assistance in agriculture, intervention and other market regulation measures, amounted to LTL 2.79 billion.

The publication presents changes in the indicators of the agricultural and food sector development covering the five-year period and focusing more considerable attention on the events and outcomes in 2012. With an aim of retaining the possibility for comparing 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 2012 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 and their staff members for provided statistical information and advice. Dear readers, we are kindly looking forward to your remarks and proposals.

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

I. ACHIEVEMENTS OF LITHUANIAN AGRARIAN SECTOR AND KEY FACTORS INFLUENCING THEM

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

Agriculture and industry processing its products is not just the important source of economic welfare supplying the population of the country with qualitative food and certain energy resources. This sector has a big impact on the development of rural areas that are inhabited by one-third of Lithuania's population. Even though the rapid structural changes took place in Lithuania's economy within the past years – the contribution of the sector of industry and services to the gross domestic product increased at a rapid pace; agriculture, however, is still one of the most important sectors of export; it also generates income for almost one-tenth of the employed people in the country.

Gross value added in the agricultural and food, beverages and tobacco production sector. Increase in the volumes of production was characteristic of Lithuania's economy in 2012. It showed that business was able to cope with the outcomes of the 2008–2009 crises. The gross domestic product, if estimated at current prices, in 2012, as compared to 2011, increased by 3.7% and exceeded the pre-crisis level. The value added generated in agriculture, forestry and fisheries reached LTL 4.0 billion, and as compared to 2011 increased even by one-fifth, reaching its peak within the period of 2008–2012 (Table 1.1). The growth of the gross value added (GVA) created in agriculture and related services was conditioned by a record grain harvest of 4.7 million tonnes in 2012, that was even by 36% more than in 2008. With the increase of grain supply, its purchase prices remained high – 708 LTL/t. In 2012 grain purchase prices were highest within the period of 2008–2012.

Procurement of vegetables in 2012 equalled the volumes of that as in 2008 and accounted for 55.6 thou. t. Purchase prices, however, were one of the lowest within the period of 2008–2012 – exceeded only those during the 2009 crisis: the average price for vegetables reached 1065 LTL/t. The purchased volumes and prices for livestock products in 2012 stayed at the 2008 level and did not have any impact on the growth of the value added either.

Estimating the structural changes in Lithuania's economy since the reestablishment of independence, at the rapid growth of the sectors of industry and services a tendency of the declining contribution of agriculture into the GVA was noticed within several years. In Lithuania, prior to 2011, a tendency of consistent decrease of the agricultural contribution into the added value of the country also prevailed. In 2008 the share of GVA created in Lithuania's agriculture, forestry and fisheries accounted for 3.6%, and in 2011 - 3.5%. The increased volumes of production in 2012 predetermined that the share of GVA created in Lithuania's agriculture, forestry and fisheries, as compared to 2011, increased and came to 3.9%.

Indicators	2008	2009	2010	2011*	2012**
Gross domestic product, at current prices, LTL mill.	111 920,1	92 032,4	95 323,2	106 369,9	113 471,5
Gross value added, at current prices, LTL mill.	100 342,0	82 910,3	85 561,7	95 543,0	102 414,6
Changes in the gross value added, at constant prices of 2005, %	121,8	103,5	105,3	111,5	115,7
Gross value added created in agriculture, forestry and fisheries, LTL mill.	3 665,2	2 318,1	2 815,4	3 350,2	4 025,6
Share of agriculture, forestry and fisheries in gross value added, %	¹ 3,6	2,8	3,3	3,5	3,9
Gross value added created in manufacture of food products, beverages and tobacco products, LTL mill.	f 3 429,0	3 727,2	3 878,1	4 445,3	4 885,3
Share of manufacture of food products, beverages and tobacco products in gross value added, %	3,4	4,5	4,5	4,7	4,8

Table 1.1. Macroeconomic indicators of agriculture, forestry and fisheries in 2008–2012

* Provisional data.

** Preliminary data.

Source: Data of Statistics Lithuania.

Currently, the share of value added created in Lithuania's agriculture, forestry and fisheries remains substantially higher than in the old EU countries (Fig. 1.1.).

In 2011 the smallest share of GVA generated by agriculture, forestry and fisheries was in Luxembourg (0.3%), the United Kingdom and Belgium (0.7%), Germany (0.9%). Among the new EU countries, however, the share of GVA created in agriculture, forestry and fisheries in Lithuania in 2011 was lower than in Romania (7.5%), Bulgaria (5.4%), Latvia (5.1%), Hungary (4.5%), Poland (4.0%), and Estonia (3.6%).

The growth of volumes in food, beverages and tobacco production shows the post-crisis recovery of this sector. The gross production generated by this sector in 2008 amounted to LTL 12 billion, and in 2012 – already LTL 14 billion, i.e. increased by 18.0%. GVA also went on increasing; in 2012 it reached LTL 4,885.3 million and, if calculated at comparable prices, was by 6.5% higher than in the previous year. GVA created in this sector within the period of five years since 2008 has increased by 20.6%. Due to the more rapid growth of added value than the average rate of country's added value, a contribution of food, beverages and tobacco production into the creation of GVA also increased and in 2012 it was 4.8%.



Fig. 1.1. The share of gross value added created in agriculture, forestry and fisheries in the total country's value added in Lithuania and other EU countries in 2008 and 2011, per cent

Source: Data of Eurostat.

Most important foreign trade tendencies. Considerable growth of production volumes in food, beverages and tobacco production and in agriculture, forestry and fisheries sectors predetermined the increased growth rates in foreign trade. Estimating export and import variation tendencies of agricultural and food products, it is possible to state that foreign trade volumes in this sector were less impacted by the crisis than foreign trade indicators of other branches of the economy. Even though the export volumes of Lithuania's economy dropped by 27% in 2009, agricultural and food products, however, suffered less than in other sectors. Due to this reason, the share of export in agricultural and food products increased to 19.6% (Table 1.2). Moreover, it should be noted that in 2009 the export value of agricultural and food products were higher as compared to 2008, e.g., export of cheeses and curd was by 1.2% higher, whereas income raised was by 17% lower, grain export was by 11% higher and income generated was lower by 23%.

Even with the recovery of export in other sectors, a contribution of agricultural and food production into the export of the country remained significant. In 2010 it comprised 18.0%, in 2011 - 16.6%; in 2012 - 18.4%. In terms of value in 2012, as compared to 2008, export increased even by 27%. Crop growers made a notable contribution to export growth rates yielding as mentioned a record harvest in 2012. Export of rape grown in Lithuania increased twice. Value of other exported products, however, increased slower: dairy products by 15%, meat and edible meat offal by 8.7%.

Indicators	2008	2009	2010	2011	2012
Value of exported products, LTL mill.	8893,5	7979,4	9710,3	11529,8	14631,8
share in total export, %	16,0	19,6	18,0	16,6	18,4
Value of imported products, LTL mill.	8139,8	6650,2	7977,6	9580,2	11244,1
share in total import, %	11,2	14,7	13,1	12,2	13,0
Foreign trade balance, LTL mill.	753,7	1329,3	1732,7	1949,6	3387,7

Table 1.2. Export, import and foreign trade balance of agricultural and food
products in 2008–2012

Source: Data of Statistics Lithuania.

Estimating changes occurring in the export structure of agricultural and food products in 2012, four most important tendencies may be distinguished:

• Share of export in products of Lithuanian origin against the total export in agricultural and food products is decreasing constantly. Re-export during all the years, except 2009, increased more rapidly than export in agricultural and food products of Lithuanian origin. Value of exported products went up due to the growth in the value of products of Lithuanian and non-Lithuanian origin, whereas the value of export in non-Lithuanian origin products which is based on import of agricultural and food products manufactured in other countries increased more rapidly than of products manufactured in Lithuania.

In 2012 export of the latter as compared to 2011 increased by 1.25 times, reexport by 1.31 times. Within the period of 2008–2012, export of products of Lithuanian origin went up by 1.6 times, and re-export by 1.8 times. In 2012 products of Lithuanian origin accounted for 66% of the total export in agricultural and food products.

- Changes in the agricultural production structure had an impact on the change in the export structure of the products of Lithuanian origin. Within the reference period since the re-establishment of independence, milk and dairy products have been and are the most important agricultural and food export commodity of Lithuania. Already in 2006, however, an important place by export value belonged to grain (grain of Lithuanian origin accounted for 7.2% in the export structure). With livestock number and demand for feed grains decreasing on the domestic market, the share of grain export has increased within the entire reference period. In 2004 milk and its products comprised 30% of the total export of agricultural and food products of Lithuanian origin, grain 9.2%, in 2008 milk 22%, grain 18%, and in 2012, correspondingly, 19% and 18%. An increase in rape crop areas involved an increase in rape export. Oilseeds, straw and feed in 2012 comprised 7.4% of export of products of Lithuanian origin. These tendencies make it possible to state that traditional specialization of the country undergoes changes.
- Share of raw products in the export structure of Lithuania has been increasing. Even though grain and rape export is profitable for farmers and exporters, but while selling grain in foreign markets Lithuania exports raw materials, i.e. products giving the lowest value added. Export of other raw products is also increasing amount of exported raw milk as compared to 2008 increased by 22 times, that of meat and edible meat offal by 1.4 times.
- Lithuania has retained the most important export markets of agricultural and food products and expanded its export geography. In 2012 Russia remained the major partner in the export of agricultural and food products. Export to this country accounted even for 30% of the total value of export in agricultural and food products, and during the year it increased even by 27%. The second partner is Latvia export to this country within the same period has increased by 17%, and its share in the export structure reached 12%. The third partner as to export importance was Germany, and the amount of products shipped into it was by 9.3% higher than in 2011 (for LTL 1293.8 million), and export share to this country constituted 8.8%. It should be underscored that export geography has been further expanded: export to Saudi Arabia increased by 42%, export to Iran has been started. In 2011 Lithuania exported agricultural and food products into 127 countries, and in 2012 into 131 countries.

In 2012 growth tendencies in imports of agricultural and food products have strengthened still more. In 2012 in comparison with 2011 import increased by 17%. Growth in imports of agricultural and food products was encouraged by the opportunity for re-exporting of some imported products into the neighbouring markets due to the improved economic situation in those countries. In 2012 Lithuania imported 39 thou. t of frozen fish, of which 23% was re-exported, 29 thou. t of fish fillet (18% was re-exported). Re-export of fruit and nuts made the major share.

Other strong reasons for import enhancement are related to the need of meat and milk processing companies to be supplied with the raw materials. Since the beginning of 2008 pork import volumes have been decreasing though still remained quite considerable in comparison with the production volumes in Lithuania. In 2012, according to preliminary LIAE data, 74.2 thou. t of pork (carcass weight) was produced, and 61 thou. t was imported. Beef production amounted to 40 thou. t, beef imports to 1.3 thou. t, but 25 thou. t of beef of Lithuanian origin was exported. Export and import volumes of poultry meat are almost the same, whereas the average price of imported poultry meat is by 31% lower than that of exported poultry meat. Negative tendencies have become further revealed on the milk market when due to the low milk purchase prices on the Lithuanian market the farmers seek for raw milk sale alternatives, whereas milk processors at the same time are increasing the volumes of raw milk import. Since 2005, after the import of milk for processing has started, import of raw milk until 2012 increased by 9.6 times (from 39 to 381 thou. t), and its average price by 11% (from 950 to 1055 LTL/t). In 2012, 69% of raw milk was imported from Latvia, 31% from Estonia. Raw milk export has increased rapidly within the recent years while milk processors were importing raw milk: in 2009, 10.4 thou. t of raw milk was exported, in 2010 - 23.6 thou. t, in 2011 - 70.7 thou. t, in 2012 - 78.8 thou. t. The most important export markets are the neighbouring countries: in 2012, 90% of milk was exported to Poland and 9.4% to Latvia.

Import of raw materials shows that food, beverages and tobacco production capacities exceed the supply of raw materials manufactured by Lithuanian agriculture and owing to the developed disproportions the food, beverages and tobacco industry is becoming still more dependent on the volumes and quality of imported raw materials.

Employment, labour efficiency. Agriculture in Lithuania has still retained its position as an important employer for the country's population. Changes on the labour market reveal that employment structure gradually is getting closer to the employment structure characteristic of post-industrial countries; the importance of this sector on the labour market, however, is still significant. Even though throughout the period of 2008–2012 the share of employed persons in agriculture, forestry and fisheries decreased by 1.0 percentage point to 8.9% against the total number of the country's workforce; nevertheless, it still exceeds strongly the corresponding indicator in many EU states. In 2012 in the EU-27 countries the share of employed persons in agriculture, forestry and fisheries accounted for 4.9%, and in the EU-15 – 3.0% of the total number of the employed in the country.

In assessing the employment situation by long-term tendencies in Lithuania's economic development, it should be stated that decline in the number of workforce due to the population emigration has not left agriculture aside. In 2012 the number of the employed in the national economy comprised 1278.5 thousand, and, as compared to 2008, their number dropped by 241.5 thousand, or 15.9%. The number of the employed in agriculture, forestry and fisheries went on reducing slower – correspondingly by 5.2 thousand and 6.2%. Tendencies for rapid changes in the employed in agriculture that have formed since the beginning of Lithuania's membership in the EU got stabilized in 2008 and in 2012, if compared to 2011, the number of those employed in agriculture, forestry and fisheries even augmented from 108.7 to 113.6 thousand. Economic crisis somewhat stopped the reduction of employment in agriculture, since part of the working

age rural population that got employed in the construction, services and industrial sectors at the economic boom after losing their jobs due to crisis came back to farming.

The stabilized slumping tendencies of employment in agriculture stopped labour efficiency growth in this sector, even though value added per annual working unit (AWU) created within the entire reference period in agriculture, forestry and fisheries fluctuated greatly: in 2008 - LTL 30.7 thousand, in 2009 - LTL 17.8 thousand, in 2010 - LTL 23.2 thousand, in 2011 - LTL 28.8 thousand, in 2012 - LTL 31.2 thousand and, as compared to 2011, labour efficiency increased by 11.8%, and, as compared to 2008, remained at almost the same level.

Even though labour efficiency in agriculture, forestry and fisheries is increasing, it still remains considerably lower than the average in the country, and this difference is increasing. In 2008 labour efficiency in agriculture, forestry and fisheries was lowest among the sectors and made just 46% of the average labour efficiency in the national economy. In 2012 this ratio decreased still more and reached 40%.

The lower labour efficiency in agriculture in comparison with other branches of economy is predetermined by the dependence of technological processes on natural factors. For example, added value created in agriculture, forestry and fisheries in 2011 per employed person in such old EU countries of the strong economy and successfully developed agriculture like Denmark and Germany constituted accordingly 58% and 59% of the average national labour efficiency. By labour efficiency level in agriculture Sweden and the Netherlands are to be distinguished from the EU states where value added per AWU created in this sector accounted correspondingly for 84% and 69% of the average national labour efficiency.

Comparing the labour efficiency indicators in Lithuania with analogous indicators in other EU countries, it is seen that labour efficiency in our country's agriculture is quite considerably lagging behind other EU countries (Fig. 1.2).



Fig. 1.2. Value added per annual working unit in national economy and in agriculture, forestry and fisheries in Lithuania and other EU countries in 2008 and 2011, LTL thousand

Source: Data of Eurostat.

Achievements of Lithuanian Agrarian Sector and Key Factors influencing them

As seen, other countries are able to better use the factors for value added increase in agriculture. Lithuania gains no advantage even when the value of production-related subsidies is included in calculating the GVA. The data of the Eurostat economic accounts for agriculture show that subsidies for production in the GVA created in agriculture and related activities accounted for 23.1% in 2008, 26.8% in 2009, 19.8% in 2010, 22.8% in 2011, and 17.3% in 2012. By size of the share of production-related subsidies Lithuania in 2008 was among the leading after Finland and Slovakia, and it reduced this indicator least of all. Share of the added value for production-related payments in EU-15 dropped in the period of 2008–2012 by 2.5 percentage points and in EU-12 by 5.5 percentage points.

8	ĩ				
Country	2008	2009	2010	2011	2012
Finland	32,7	22,6	21,9	19,6	18,8
Lithuania	23,1	26,8	22,8	19,8	17,3
Portugal	8,3	9,8	10,0	12,8	10,0
Poland	14,5	18,4	16,2	11,6	5,9
Bulgaria	4,0	7,5	5,8	5,4	4,3
Belgium	5,4	7,1	4,6	5,2	4,2
Greece	6,1	5,7	3,9	3,6	4,0
Hungary	2,6	3,5	3,5	3,3	4,0
France	9,6	11,0	4,4	3,9	3,5
Austria	3,7	4,8	4,1	3,4	3,4
Malta	17,0	7,8	5,8	3,1	2,7
Latvia	14,7	22,5	5,7	3,1	2,7
Slovenia	2,8	2,8	2,6	2,3	2,6
Spain	7,0	8,1	3,2	3,0	2,4
Sweden	5,0	6,9	4,6	4,7	2,3
Czech Republic	7,9	11,1	5,1	3,8	1,9
Ireland	2,2	3,6	2,3	1,7	1,6
Denmark	1,9	2,0	1,3	1,2	0,5
Italy	1,6	2,2	1,7	1,2	1,2
Estonia	7,5	5,8	1,9	1,2	1,1
Netherlands	2,0	2,7	1,2	0,8	0,6
Slovakia	28,6	21,6	17,1	9,2	0,3
United Kingdom	0,8	0,5	0,4	0,3	0,3
Romania	6,0	6,4	0,9	0,0	0,0

Table 1.3. The share of subsidies on products in the gross value addedin agricultural industry in some EU countries in 2008–2012, per cent

Source: Data of Eurostat.

In Lithuania from the beginning of the EU membership the most important factor in the increase of labour efficiency has become the development and modernization of machinery and equipment. Crop-growing farms after acquisition of modern machinery and expansion of the arable land areas by way of ownership or lease could apply powerful technology and use the advantages of scale economies. Labour efficiency was increasing with agricultural employment reduction, though no due attention was paid to increase the added value. Tendencies for change in labour efficiency within 2008–2012 show that other labour efficiency enhancement factors should be also used, focusing special attention on certain areas enabling the increase of added value in small and medium-sized farms and its redistribution among the food supply chain participants to the benefit of farmers.

With a view to increasing added value created in agriculture, account should be taken of the fact that support measures are not enough for farmers at the stage of production. Farmers are still more interested in the support for other parts in the added value creation chain. This is especially important for small and medium-sized farms. Lately, consumers devote still more attention to food quality and want to eat ecological and fresh food, produced at their place of residence. Therefore, the present situation is especially favourable for the farmers' attempts to sell agricultural products directly to the final consumer. The support measures should be based on the idea to stimulate farmers to sell as bigger part of their products as possible to the final consumer rather than to the processors of the raw materials or other agents.

2. Gross agricultural output

According to the preliminary data of the Department of Statistics, the gross agricultural output in 2012, if calculated at current prices, was produced for LTL 9.43 billion, i.e. by 16.0% more than in 2011. This was predetermined by the better yield of agricultural products. Within the entire period under analysis, the crop output comprised the major part of the gross agricultural output value as compared to livestock output. This was conditioned by the more favourable price ratio between the crop output and raw materials necessary for its production, as compared to livestock output, as well as bigger support for this branch. The share of crop output in the agricultural production in 2012, as compared to 2011, increased by 5.2 percentage points (Table 1.4).

Output	2008		2009		2010		2011		2012*	*
Output	LTL mill.	%								
Total	7340,0	100	5707,0	100	6388,2	100	8128,0	100	9426,7	100
crop output	4125,5	56,2	3239,5	56,8	3476,2	54,4	4825,1	59,4	6093,7	62,4
animal output	3214,5	43,8	2467,5	43,2	2912,0	45,6	3302,9	40,6	3333,0	37,6

 Table 1.4. Structure of gross agricultural output* in 2008–2012

* At current prices.

** Preliminary data.

Source: Data of Statistics Lithuania.

The growth of the gross agricultural output if estimated at comparable prices was somewhat lower (15.0%). It is worthwhile to note that throughout the entire period of 2008–2012 changes in crop and livestock output volumes as compared to the previous years vary (Fig. 1.3). In 2010 crop output decreased most of all – by 17.4%. Its highest increase was in the year 2012. The volume of livestock output decreased most considerably in 2009 – by 6.1%, and increased most of all in 2012 – by 3.0%. The volume of livestock output in 2012, as compared to 2011, increased by 2.2%.



* Preliminary data.



Source: Data of Statistics Lithuania.

The value of crop output in 2012, as compared to 2011, was considerably higher. This was conditioned by the higher yield of: grain -43.4% (due to 8.3% larger harvested area and 32.2% higher yielding capacity), rape -30.7% (4.2% and 25.3%, respectively), sugar-beets -14.3% (9.1% and 5.0%). Higher purchase prices of the said products also contributed to the increase of the crop output value. Rapeseed and cereal purchase prices were higher accordingly by 8.2% and 7.9%, sugar-beets by 4.3%.

Gyvulininkystės produkcijos vertė 2012 metais, palyginti su 2011-aisiais, padidėjo 0.9 proc. Tai lėmė padidėjusi kai kurių gyvulininkystės produktų gamyba ir supirkimo kainos. Kiaušinių, kiaulių, galvijų ir paukščių supirkimo kainos išaugo atitinkamai 36,9 proc., 12,9 proc., 7,8 proc. ir 2,4 proc.

The value of livestock output in 2012, as compared to 2011, increased by 0.9%. This was owing to the increased production of some livestock products and purchase prices. Purchase prices of eggs, pigs, cattle and poultry increased by 36.9%, 12.9%, 7.8% and 2.4%, respectively.

The major part in the gross agricultural output structure in Lithuania in 2008 and 2012 belonged to cereals (19.7 and 32.2%, respectively) and milk (24.4 and 18.3%) (Fig. 1.4).



* Preliminary data.

Fig. 1.4. Structure of gross agricultural production in 2008 and 2012 *Source: Data of Statistics Lithuania.*

In 2012, as compared to 2008, the share of cereals and crops for processing increased most of all in the gross agricultural output structure (by 12.5 and 7.6 percentage points, respectively), whereas the share of milk, potatoes and pigs decreased most considerably (by 6.1, 4.6 and 3.9 percentage points, respectively). The

main reasons for negative tendencies in the milk sector are low purchase prices for milk and relatively lower direct payments as compared to crop products.

The gross agricultural output structure in separate EU countries varies. All EU countries as to the gross agricultural output structure may be divided into three groups. The first group includes the countries where livestock production is prevailing (e.g., Ireland, Denmark), the second group – countries where the share of livestock and crop output is almost equal (e.g., Slovakia, Slovenia), the third group – countries where crop output is prevailing (e.g., Romania, Greece). Lithuania is listed in the third group. In 2012 crop output in Lithuania constituted the portion similar to that as in the Czech Republic, Latvia or France (Table 1.5).

		2008	8		2012*	
	crop	animal	gross	crop	animal	gross
Country	output, %	output,	agricultural	output, %	output,%	agricultural
		%	output,			output,
	20.2	<u></u>	LTL/ha UAA	07.0	72.0	LTL/ha UAA
Ireland	28,3	71,7	4246	27,2	72,8	4799
Denmark	37,3	62,7	11796	36,9	63,1	14290
Finland	38,5	61,5	5592	40,9	59,1	6602
Malta	39,7	60,3	40470	40,5	59,5	37243
Estonia	42,2	57,8	2243	49,0	51,0	3029
United Kingdom	43,4	56,6	5303	40,5	59,5	6219
Belgium	43,5	56,5	18944	46,0	54,0	21706
Sweden	45,7	54,3	5367	53,0	47,0	6162
Luxembourg	45,9	54,1	9223	51,8	48,2	9832
Austria	46,0	54,0	7314	49,0	51,0	8278
Cyprus	50,6	49,4	17632	50,6	49,4	20133
Slovakia	51,6	48,4	4095	56,2	43,8	3732
Slovenia	51,9	48,1	8418	52,9	47,1	8668
Germany	52,3	47,7	10318	51,5	48,5	11485
Netherlands	53,9	46,1	44096	55,1	44,9	47962
Czech Republic	54,4	45,6	4671	61,0	39,0	4688
Poland	54,4	45,6	5178	54,0	46,0	5506
Portugal	56,0	44,0	5959	53,7	46,3	5864
Lithuania	56,2	43,8	2755	64,6	35,4	3394
Latvia	56,7	43,3	1841	62,7	37,3	2360
France	59,6	40,4	8266	62,7	37,3	9187
Italy	63,4	36,6	12365	60,3	39,7	12621
Bulgaria	64,4	35,6	3200	68,4	31,6	3186
Hungary	64,5	35,5	5642	62,0	38,0	5454
Spain	64,5	35,5	5866	60,6	39,4	6097
Greece	71,6	28,4	10138	71,7	28,3	10092
Romania	74,5	25,5	4380	68,9	31,1	3464

Table 1.5. Structure of	gross agricultural	output in EU	countries in	2008 and 2012
10010 100 000 00000 0 00			•••••••••	

* Preliminary data.

Source: Data of Eurostat.

In 2012 the highest gross agricultural output per 1 ha UAA was in the Netherlands, Malta, Belgium and Cyprus. These countries utilized rationally their natural and industrial resources, selected priorities according to their competitive advantages and situation on the market. In 2012 Lithuania's gross agricultural output per 1 ha UAA was one of the lowest in the EU. Compared to Poland, this indicator was almost by half lower, and to Denmark where conditions are similar – even by 4 times. After making a deeper analysis it could be seen that this was due to purchase prices for agricultural products which are lower than in other countries and support.

As seen from the data provided, no distinct variation exists between separate groups. For gross agricultural output per 1 ha UAA, both crop-growing and livestockbreeding is of the same importance. For example, in Ireland where livestock output constitutes almost three fourths of the gross agricultural output, the gross agricultural output per 1 ha UAA is nearly the same as in the Czech Republic where livestock output accounts for 39.0% of the gross agricultural output. In 2012 in Lithuania the gross agricultural output per 1 ha UAA was somewhat higher than in Estonia where more than a half of the gross agricultural output consists of livestock output.

Procurement volumes and prices for agricultural products as well as prices of material resources necessary for their production 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 purchased agricultural products during the period of 2008–2012 varied unevenly. In 2012, in comparison with 2011, procurement of grain increased by 86.2%, rapeseed by 47.2%, fruit and berries by 21.4%, vegetables by 17.3%, potatoes by 15.7%. Procurement volumes of animals and livestock products as compared to crop-growing products increased at a slower pace. Purchased animals and poultry (live weight) increased by 4.5% and milk by 3.2%. These changes were much influenced by the prices of agricultural products and material resources required for their production.

Tendencies of price index variation for agricultural products and resources required for their production within the period of 2008–2012 slightly differed. The highest price index on crop and livestock products as well as on inputs was in 2011 and lowest in 2009. Nevertheless, in 2012, as compared to 2011, prices for crop production decreased by 6.4%, and for livestock products and inputs increased by 1.8% and 4.8%, respectively. These price index variations during the period of 2008–2012 predetermined the disproportion (the so-called price scissors) between the purchase price for agricultural products and the price of inputs (Table 1.6).

Table 1.6. Price indices of agricultural products and inputs in 2008–2012
(compared to the previous year), per cent

Indicators	2008	2009	2010	2011	2012*
Price scissors	85,3	104,0	116,5	97,0	94,1
Purchase price indices of agricultural products					
Total	110,0	77,8	116,3	118,4	98,6
crop products	105,8	69,1	125,6	127,4	93,6
livestock products	112,6	83,1	111,7	113,3	101,8
Price index of inputs	129,0	74,8	99,8	122,0	104,8

* Preliminary data.

Source: Data of Statistics Lithuania.

Most unfavourable for agricultural producers was the year 2008 when prices for crop and livestock production in comparison with the previous year increased by 5.8% and 12.6%, respectively, and prices of inputs even by 29.0%. In 2011 and 2012 variations in purchase prices for agricultural production and prices of inputs were again unfavourable for agricultural producers, but less than in 2008. During the period of 2008–2012 the most favourable for farmers was the year 2010.

It should be noted that impact of price scissors on crop and livestock production producers varied. The year 2012 was more favourable for livestock production producers, since their production purchase prices were by 3.0 percentage points lower than those of inputs, and in the crop production sector this difference was significantly higher and comprised 11.2%. The unfavourable impact of agricultural production price scissors on producers was compensated by direct payments.

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

Since Lithuania's accession to the EU the Lithuanian economic entities and rural population have become participants of various support programmes under the Common Agricultural Policy (CAP) covering issues relating to the rural development, farmers' income maintenance, market regulation, export and fisheries promotion, etc. To ensure the action of these support programmes, aid is granted to the farmers and rural population from the EU and national budgets. In 2012 funds for financing of Lithuania's agriculture comprised LTL 2790.6 million, i.e. by 2.3% more than in 2011 (LTL 2728 million).

Direct payments. The main element of CAP – direct payments – for more than 20 years is an integral part of the EU farmers' income. The funds allocated for EU direct payments account for 70% of the total CAP financing. These funds are intended for maintenance of agricultural activities, seeking to minimize losses, i.e. they perform the function for maintenance of income for agricultural entities and contribute to reducing the vulnerability of the economic viability of farms. Direct payments in Lithuania shall be paid for the declared utilized agricultural areas, animals and quota milk according to the single area payment scheme. In 2012 the major portion of funds (around 90%) in the country allocated for financing of direct payments was paid from the European Agricultural Guarantee Fund (EAGF), the remaining part from the national budget by paying complementary national direct payments (CNDP). With the increase of the share of the EAGF funds, granted for financing of Lithuania's direct payments, the share of the CNDP funds has been decreasing. Financing proportions are regulated by the EU CAP legislation. The share of the CNDP funds is coordinated every year with the European Commission (EC).

Since 2012 in Lithuania the modulation of direct payments (reduction of the amount of payments exceeding the established limits, and transfer of the modulated funds to the Rural Development Fund) has been started. Reduction in payments in the old EU states has been started since 2005. In accordance with the currently valid regulation of the Council (EC) No. 73/2009, since 2012 direct payments in Lithuania

that are paid from the EAGF shall be reduced by 4% for those economic entities the amount of payments of which received from the EAGF exceeds EUR 300 thou. (LTL 1.04 million). In accordance with the said regulation, in addition to the reduction of the EAGF payments, since 2012 the CNDP decrease is foreseen in Lithuania. The total amount of direct payments, financed from EAGF, payable to economic entities, and the CNDP, exceeding EUR 5000 (LTL 17.26 thou.), will be reduced by 10%, and exceeding EUR 300 thou. (LTL 1.04 million) – by 4% still more. The amounts corresponding to the indicated percentage shall be deducted from the CNDP. Modulation of direct payments from EAGF for animals and utilized agricultural areas declared in 2012 should comprise about LTL 560 thou. and be adapted to 36 farms in Lithuania, modulating from each, on the average, around LTL 15.5 thousand.

In 2012 direct payments paid to Lithuanian agricultural entities from the EU budget amounted to LTL 975.1 million (a total of LTL 1.2 billion was allocated) (Fig. 1.5). Direct payments were paid for declared utilized agricultural areas, sugar, beef cattle and sheep (meat breeds). As compared to 2011, the share allocated from the EU budget increased by 6%, and the share paid became reduced by 10.2%.



Fig. 1.5. Funds for direct payments in 2008–2012, LTL million

Source: Data of the National Paying Agency.

Taking into account the application of modulation in respect of the CNDP for the year 2012 for declared animals and UAA in Lithuania, the maximum permissible amount for CNDP payment after modulation was approved – LTL 106 million, i.e. by 45.4% less than in 2011 (LTL 194 million). In 2012 the CNDP modulation should approximately make about LTL 32.3 million. In 2012 the share of the CNDP paid for the declared animals and UAA in 2011 and the previous year comprised LTL 175.3 million, i.e. by 25.6% more than it was paid in 2011 (LTL 139.6 million).

In 2012 the basic direct payments paid per hectare of UAA (not taking into account the kind of crops) comprised LTL 406.9, i.e. by 10% more than in 2011 (369.8 LTL/ha) (Table 1.7). This increase was directly coupled with the annually increasing financing of direct payments from the EAGF. In accordance with the rules for granting of CAP support, the direct support for agricultural entities engaged in livestock-breeding is possible for the most part only from CNDP. In 2012 the major part

of those payments were allocated in particular to support the livestock-breeding sector, and this predetermined the withdrawal of CNDP for grain crops, rape, protein crops, perennial herbs for seed and fodder crop mix. Since 2012 no payments remained for slaughtered adult cattle either.

Kind of payment	2008	2009	2010	2011	2012
EU budget payments					
basic payment, LTL/ha	248	291	341	370	407
quota sugar payment, LTL/t	318	344	344	344	344
energy crops, LTL/ha	155	155	—	_	_
beef cattle payment, LTL/head	_	_	_	426–546	511-648
sheep (meat breeding) payment, LTL/head	_	_	_	38–67	38–68
Complementary national direct payments for prod	uction*				
grain crops, rape LTL/ha	144	99	60	33	_
protein crops, LTL/ha	251	180	100	75	_
fibre flax, LTL/ha	348	297	247	217	150
perennial herbs for seed and fodder crop mix, LTL/ha	100	99	60	33	-
energy crops LTL/ha	144	99	_	_	_
suckler cows, LTL/head	610	590	590	400	310
bulls, LTL/head	593	593	593	543	600
slaughtered adult cattle, LTL/head	250	220	213	30	0
ewes, LTL/head	48	48	48	40	39
quota milk, LTL/t	87	87	87	70	70

Table 1.7. Direct payments in Lithuania in 2008–2012

* Total sum of coupled and decoupled payments.

Source: Data of the Ministry of Agriculture.

In 2012 CNDP are foreseen to livestock-breeding economic entities for keeping of suckler cows, bulls, ewes and quota milk, to crop farming economic entities for fibre flax.

In 2012, like in 2011, seeking to stimulate the rearing of beef cattle and sheep of meat breeds in Lithuania, a specific support scheme under Article 68 (1) of the Council Regulation (EC) No. 73/2009 has been continued. Financing under this scheme is carried out from the EAGF funds, redistributing the financial envelope of direct payments for the years 2011–2013.

Beef cattle keepers meeting the requirements for payments under a specific support scheme were additionally paid from LTL 511 to LTL 648 per head, and keepers of sheep of meat breeds were guaranteed a payment from LTL 38 to LTL 68 per head (Table 1.8).

Beef cattle groups by number of heads	r Payment by group, LTL/head	Sheep (meat breeding) groups by number of heads	Payment by group, LTL/head
1–5	648	1–50	68
6–50	625	51-100	47
51-100	578	101–150	44
101–150	555	>150	38
>150	511		

Table 1.8. Direct payments for bee	cattle and sheep (meat breeds) in Lithuania
in 2012	

Source: Data of the Ministry of Agriculture.

Under the above-mentioned support scheme, payments were differentiated in such a way that the larger number of meat animals would predetermine the lower average payment per head.

From 2012 a requirement, foreseen in the EU legal acts to apply in Lithuania the CNDP modulation for UAA, animals and quota milk declared in the year 2012, determined the more rapid decrease in CNDP financing. The application of modulation for EAGF payments, exceeding EUR 300 thou. and redistribution of EAGF funds in order to encourage the rearing of beef cattle and sheep conditioned the slower increase in the 2012 basic direct payments. As compared to 2011, complementary support for fibre flax, rape, perennial herbs for seed and feed crop mix, and protein crops was rejected. Moreover, support for fibre flax dropped by about 31% (from 217 to 150 LTL/ha), suckler cows by about 23% (from LTL 400 to 310 per head), whereas payments for bulls increased by about 10.4% (from LTL 543 to 600 per head). Payments for quota milk in 2012 remained the same as in 2011 – 70 LTL/t.

Export refund payments. With a view of making the EU manufactured products to be competitive on the markets of third countries, the EU countries have been applying export refund payments for quite a lengthy period for products shipped outside the EU into third countries. Export refund payments applied for the products manufactured in Lithuania are of the same rate as in other EU states.

Implementing the EU obligations according to which the countries belonging to the World Trade Organization (WTO) agree to ensure the parallel cancellation of all forms of export subsidies (direct export subsidies, export credits, etc.) until the year 2013, export refund subsidies in 2012 went on reducing. Taking into consideration that export refund payments for milk products have not been granted since 2012, a negative impact was felt on volumes of dairy products exported to third countries.

In 2012 Poland filed a proposal to the European Commission concerning granting of payments from the EU budget for export of dairy products to third countries, and this proposal, however, was vetoed.

In 2012 in Lithuania export refund payments were paid for meat products only – cattle meat, beef, pork and live animals. As compared to 2011, the total amount of export refund payments reduced by about 36.5%, from LTL 14.3 million in 2011 to LTL 9.1 million in 2012 (Fig.1.6).



Fig. 1.6. Export subsidies paid in 2008–2012, LTL million

Source: Data of the National Paying Agency.

In 2012 in Lithuania 52% of the total export refund payments, i.e. somewhat more than LTL 4.7 million, was paid for beef. Around 47.4%, i.e. approx. LTL 4.3 million, was paid for cattle meat. The remaining part of export refund payments was paid for live cattle – LTL 45.2 thousand and for pork LTL 7.8 thousand.

Other market regulatory measures. Alongside export subsidies a very important guarantee for market control, security and agricultural sector stability are such CAP market regulatory measures (MRM) like production quotas, intervention purchases, private storage, and consumption promotion.

In 2012 in Lithuania no applications were filed for grain intervention sale due to the favourable procurement prices on the market.

Moreover, in 2012 just one Lithuanian milk processing company made use of a private storage measure. 751 t of butter were in private storage, and LTL 71 thousand from the EU support funds was paid.

In 2012, as in the previous year, the Food Distribution Programme from Intervention Stocks to the Most Deprived People in the Community was among the most urgent in the MRM. In 2012 for implementation of this programme in Lithuania the EC allocated LTL 25.9 million (by 3% less than in 2011), which was used for distribution of over 6.5 t of foodstuffs to 444.7 thousand people.

As compared to 2011, foodstuffs consumption promotion programmes have been implemented more intensively. Aiming to improve public health by means of market regulatory measures, the development of good eating habits of children and juveniles was undertaken through schools. The activity of the use of the support programme "Milk for Children" increased more than twice – from LTL 7.1 million (of which LTL 1.3 million from the EU funds) in 2011 to LTL 15.8 million (of which LTL 2.4 million from the EU funds). The number of supported children increased by more than 46%, from 136.3 thousand in 2011 to 199.1 thousand in 2012.

The support programme "Promoting of Fruit Consumption in Schools" has gained popularity. In the 2011/2012 school year, support amounting to LTL 10.7

million (share of the national funds LTL 7.0 million, EU support LTL 3.7 million), i.e. by nearly 10 times more than in the 2010/2011 school year (LTL 1.2 million), was granted. For children in pre-school establishments and general education schools in the 2011/2012 school year over 2.5 thou. t of fruits and vegetables (apples, pears, bananas, citrus fruits – oranges, tangerines, grapefruits, lemons –, and carrots) were distributed in schools, i.e. by almost 7 times more than in 2010/2011 (372 t).

The share of MRM granted funds paid in Lithuania is being updated every year with account taken of the refunds to the budget (EU and national) for administrative or some other non-compliances for receiving support. In 2012 the MRM financing excluding export refund payments (LTL 69.8 million) in Lithuania increased by 70.2% as compared to the year 2011 (LTL 41 million) (Fig. 1.7). Such enhancement in financing was conditioned by still more increasing popularity of domestic consumption programmes. The major part of MRM is implemented by means of common financing funds – both from the EU fund and the State budget. The share of the EU funds in financing the MRM excluding export refund payments comprised about LTL 41.3 million in 2012, or by 10 times more than in 2011. The major part of the above-indicated funds (about 62.7%) was granted for implementing the Food Distribution Programme from Intervention Stocks to Most Deprived People in the Community.



Fig. 1.7. Funds for intervention market regulation measures excluding subsidies for export in 2008–2012, LTL million

Source: Data of the National Paying Agency.

In 2012 the share of national funds for the said measures was by about 23.2% lower than in 2011 and constituted about LTL 28.5 million. The largest portion of those funds (about 47%) was allocated for the implementation of the support programme "Milk for Children".

Rural development measures. Alongside the direct support, the Lithuanian agricultural entities also have the opportunity to be granted investment and compensatory support under the 2007–2013 Rural Development Programme (RDP), covering more than 50 support measures. Within the period of 2007–2013 support amounting to about LTL 7.9 billion is foreseen to be allocated under this programme for agricultural entities.

Support is allocated for modernization of agricultural holdings, application of methods for agricultural product manufacture involving environmental protection and cherishing of traditional rural environment, for training, informing, consulting and maintaining of income of farmers and rural population farming in less favoured areas, in Natura 2000 areas and being involved in environment sustainability.

Within the period of 2007–2012 over 784.7 thousand applications were collected under all the RDP measures (without technical assistance), the amount of requested support thereof comprising almost LTL 8.3 billion. Part of the approved support constituted 97.1% (i.e. 762.1 thousand applications), the aggregate amount of support reaching LTL 6.6 billion. Until 2013 LTL 4.8 billion was paid, i.e. 61% of the RDP allocated funds.

In 2012 under the RDP measures 29 calls for submission of applications were announced, and 131.2 thousand applications for support were received, i.e. just by 2% less than in 2011. Nevertheless, support requested according to submitted applications in 2012 was by half less (LTL 977.8 million) than in 2011 (LTL 2 billion), of which the sum of those approved reached LTL 600 million. In 2012 support amounting to LTL 929.2 million was paid (under Axis 1 measures – LTL 450 million, Axis 2 – LTL 192.5 million, Axis 3 – LTL 181.6 million and Axis 4 – LTL 105.1 million), or 12% of the amount granted for the entire RDP period of 2007–2013. LTL 696.9 million of support was paid from the EU budget funds, and the share of the national budget comprised LTL 232.3 million (Fig. 1.8).



Fig. 1.8. Funds for rural development measures in 2012, LTL million *Source: Data of the National Paying Agency.*

The major part of support in 2012 was paid in Kaunas, Vilnius and Panevėžys counties – correspondingly, LTL 136.6 million, LTL 135.6 million and LTL 135.1 million, least in the Alytus County – LTL 46.4 million. In 2012 the majority of applications was filed in Utena and Vilnius counties – 23.4 and 22.8 thousand, respectively, and the least number in the Marijampolė County – about 4.6 thousand.

In 2012 applications submitted under the measures "Improving the Competitiveness of the Agricultural, Food and Forestry Sectors" of Axis 1 were not only less in number (16.7 thou.) than in 2011 (24 thou.), but also the average support amount indicated in applications (LTL 13 thou.) was by 3.8 times less than in 2011 (LTL 48.9 thou.). Applications submitted under Axis 1 measures in 2012 totalled LTL 217.9 million. Estimating the measures of Axis 1 the major part of applications (15.1 thou.) stands for the measure "Early Retirement" where the requested amount made almost LTL 47.5 million. 99.8% of these applications complied with the requirements and have been approved. With account taken of the level of the use of the funds under some measures, certain restrictions started to be applied for applicants. Under the second area of activities of the RDP measure "Modernization of Agricultural Holdings" only dairy farms could apply for support. In 2012 under this measure 39 applications were filed and the requested support amount reached LTL 14.4 million. Under the measure "Setting up of Young Farmers" applications could be submitted by young farmers implementing projects relating to farming in less favoured areas and involved in livestock farming. In 2012 no applications were collected under the measure "Improvement of Economic Value of Forests" and the area of activities "Agricultural Water Resources Management" under the measure "Infrastructure Related to the Development and Adaptation of Agriculture and Forestry", as funds allocated for implementation of these measures have been exhausted.

In 2012 the compensatory measures under RDP Axis 2 "Improving the Environment and the Countryside" were most popular. Here compensatory payments were paid for certain restrictions of activity. In 2012, 106.1 thousand applications for LTL 513.7 million were submitted under Axis 2 measures. In 2012, 83.8 thousand applications (63.9% of the total number of the submitted applications) were filed under the most popular measure "Payments to Farmers in Areas with Handicaps, other than Mountain Areas" where payments requested amounted to LTL 154.9 million. In 2012, under the measure "Agri-environment Payments" of the same axis, over 17 thousand of applications (mostly, approximately 14.2 thousand, under the "Improving the Countryside" Programme) were submitted, with requested support amounting to LTL 176.3 million.

In 2012 under the measures of RDP Axis 3 "The Quality of Life in Rural Areas and Diversification of the Rural Economy" 8.3 thousand of applications were submitted, and requested support amounted to LTL 194.3 million. Most numerous were applications under the measure "Village Renewal and Development" (in 2012, 8.1 thousand of applications were submitted). Such popularity was due to the collection of applications which was announced for the first time at the beginning of 2012 under the activity area "Replacement of Asbestos Roofs" of the above-mentioned measure. Over 8 thousand rural residents decided to seize the opportunity to replace old asbestos roof coverings and requested approximately LTL 50.4 million of support funds. In 2012 the support funds allocated for the measure "Promotion of Rural Tourism Activities" amounted to LTL 43 million. As compared to 2011 popularity of this measure was slightly lower. Last year a total of 103 applicants got interested in this measure (121 applicants in 2011), of which 82 submitted applications using non-simplified procedure and 21 used simplified procedure. The requested amount of support for implementation of rural tourism projects totalled LTL 52.9 million. In 2012 applications under the measure "Support for Business Creation and Development" were not collected as support funds for implementing this measure have been used completely.

In 2012, while implementing the measures under Axis 4, 72 applications were submitted (by almost 7 times more than in 2011 - 11 applications), the requested support amount constituting approximately LTL 13.9 million (by 8 times more than in 2011). All 72 applications were submitted under the measure "Inter-territorial and Transnational Cooperation".

Continuing the implementation of the 2007–2013 RDP measures in Lithuania, the EU budget funds for support paid in 2012 amounted to LTL 696.9 million, and the share of the national funds comprised LTL 232.3 million.

As in the previous years, in 2012 amendments to legal acts have been prepared, according to which administrative burden to the applicants has been facilitated: in implementing certain measures the farmer's farm registration and agricultural holding registration certificates were rejected. A copy of the document certifying the identity of the applicant and his/her spouse and a legal person's registration certificate were rejected as well. A requirement to submit a personal identification document copy in implementing the measure "Semi-subsistence Farming" was cancelled.

Implementing the measure "Restoring Forestry Potential and Introducing Prevention Actions" a requirement for forest enterprises to submit a project for recreation of forest areas damaged by natural disasters or fires and documents proving the fact of forest damage was rejected. It was just enough for forest enterprises to submit an extract from the forest damage registration book or an extract from the forest fire registration book.

Implementing the measure "Village Renewal and Development" the municipalities (as public sector entities) were allowed to submit payment applications and other documents not only personally or through the authorized person, but also by post or through courier services.

State aid. With account taken of the sectors sensitive to market changes and seeking to support the agricultural entities with the lower competitive advantages, State aid measures are financed from the national budget. In 2012 over 74 million was allocated for implementing the State aid measures.

In 2012, like in 2011, the following State aid measures were funded: biofuel production, compensation of part of insurance premiums for agricultural activity entities, livestock 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 advisory, science and training system, organization of international and national exhibitions, professional, cultural and educational events, etc.

In 2012 after the ended funding period for the measure "Compensatory Payments to Landowners and Managers for Determined Restrictions on Activities in Protected Territories Established by the State Authorities" support payment was discontinued. Achievements of Lithuanian Agrarian Sector and Key Factors influencing them

Aiming to promote the production of biofuel and to reduce dependence on the imported fuel and gas emission causing greenhouse effect, financing of the State aid measure "Support to the Development of Biofuel Production" was continued in 2012. Under the above-mentioned measure support is granted by compensating part of the price for rape and grain crops purchased for the production of rape oil and dehydrated ethanol. Of the total number of the State-aid measures the major funding was allocated to the measure "Support to the Development of Biofuel Production" – 36% (Fig. 1.9), or LTL 26.7 million, which as compared to 2011 increased by almost 10%.



Fig. 1.9. Structure of state-financed measures in 2012

Source: Data of the Ministry of Agriculture.

Insurance of crop areas in Lithuania is nothing new for farmers. After certain natural calamities – hail, rainfall, storm, drought, frost, severe frost, etc. – farmers started insuring more actively the possessed crop areas. In 2012 "VH Lietuva", the only enterprise involved in insuring crop areas, increased price for its insurance services – in particular cases farmers had to pay by two times higher premiums than in 2011. This increase was due to the enormous difference between insurance premiums paid by farmers and amounts paid by the insurance companies to farmers. With account taken that in 2012 the number of economic entities using insurance services and the area of the insured crop areas decreased by half (from 270 thou. ha in 2011 to 126 thou. ha in 2012), however, the funds allocated for the measure and paid (LTL 20.3 million) was just by 25% lower than in 2011 (LTL 27 million). This accounted for 27% of the total funds allocated for State aid measures.

Another State aid measure of special importance for the growing competitive advantage in Lithuania is "Support to Animal Breeding". With the requirements in national and foreign markets increasing, animal productivity and genetic potential should be enhanced and the product quality improved. This process is being accelerated by the constant development of animal selection and breeding of high-valued pedigree animals, therefore still more funds in the past years have been allocated for the breeding system development. In 2012 the amount of support for animal breeding comprised LTL 9.7 million, i.e. by 9% more than in 2011 (LTL 8.9 million) and by 21% more than in 2010 (LTL 7.7 million). In 2012 animal breeding support constituted 12.9% of the total funds foreseen for financing State aid measures.

In 2012 nearly LTL 4.4 million or 6% of the funds foreseen for financing of the State aid measures was granted to the measure "Support for Handling of Animal By-products". This support allowed animal breeders to dispose of dead animals with fewer losses.

Measures for encouraging the development of the fisheries sector. To maintain the competitiveness and development of the Lithuanian fisheries sector, support is granted according to the rules for implementation of the 2007–2013 Operational Programme for the Lithuanian Fisheries Sector. Funds for the Programme implementation are granted from the European Fisheries Fund and the national budget of the Republic of Lithuania. For this purpose the long-term measures of four priority axes under the 2007–2013 Operational Programme for the Lithuanian Fisheries Sector are being implemented.

During 2012, 42 applications for support under the Operational Programme measures were submitted, i.e. by 36% less than in 2011, whereas in 2012 payments amounted to LTL 36.9 million, by about 75% more than in 2011 (LTL 21 million) (Fig. 1.10).



Fig. 1.10. Structure of fishery measures funding in 2012

Source: Data of the National Paying Agency.

In 2012 as in 2011 no support was granted for the measures of the first priority axis "Adaptation of the Marine Fishing Fleet" (until 2011 the goals and aim to preserve the existing fishing fleet capacities envisaged under the Operational Programme have been implemented).

In 2012 applications filed under the second priority axis "Aquaculture, Inland Fishing, Processing and Marketing of Fishery and Aquaculture Products" made the major part. Payments for the measures under this axis in 2012 amounted to LTL 28.2 million – by 57% more than in 2011 (LTL 17.9 million) of support funds. In 2012, differently from 2011, the major portion of payments was granted to the second axis measure "Processing and Marketing of Fishery and Aquaculture Products" – LTL 16.2 million (i.e. by 2.5 times more than in 2011). This difference was conditioned by the administrative barriers, therefore, the administration of a substantial part of the applications submitted in 2011 was completed in 2012. In 2012 under the second axis measure "Water Environmental Measures" LTL 7 million was paid, i.e. by 14 less than in 2011.

In 2012 under the third priority axis of the 2007–2013 Operational Programme for the Lithuanian Fisheries Sector "Measures of Common Interest" LTL 6.1 million was paid, i.e. by two times more than in 2011 (LTL 3.0 million). Such enhancement was conditioned by the project of the Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania "Support for Implementing a Plan for the Management of the Stock of European Eel in Lith"uania under the third priority measure "Implementation of the Measure for Protection and Development of Aquatic Fauna and Flora".

Under the fourth priority axis "Sustainable Development of Fisheries Ařeas, intended for local action groups in the fisheries areas, support funds in 2012 reached applicants just according to one measure – "Implementation of Strategies for the Development of Fisheries Areas". Financing of this Measure in 2012 comprised LTL 1.9 million, i.e. by 68% more than in 2011 – LTL 1.1 million.

In 2012 the termination of part of the RDP and of the measures of the Operational Programme for Lithuanian Fisheries Sector was predetermined by a level of the use of funds allocated for the period of 2007–2013. The total absorption of the whole support for promotion of Lithuanian agricultural and fisheries sectors is increasing and contributes to the more competitive and more advantageous development of these branches of the economy.

4. Economic entities in agriculture and food industry

Agricultural Entities. The number of agricultural entities by categories within 2008–2012 varied unevenly. In 2012, as compared to 2008, the number of registered farmers' farms increased by 5.3%, and in comparison with 2011 by 2.4%. Within the referred five years the number of agricultural companies and other agricultural enterprises, which declared UAA, increased by 32.2%, whereas the number of households decreased by 21.3% (Table 1.9).

Agricultural entities	2008	2009	2010	2011	2012	Change 2012 compared to 2008, %
Registered farmer farms, thou.	108,0	107,0	108,7	111,1	113,8	5,4
Agricultural companies and enterprises	602	632	662	734	796	32,2
Households, thou.	108,7	103,2	99,2	94,0	85,5	-21,3

Table 1.9. Number of agricultural entities in 2008–2012

Source: Data of the Agricultural Information and Rural Business Centre.

According to the data of Agricultural Information and Rural Business Centre (AIRBC), with reference to UAA and crop areas declared in 2012 by all agricultural entities, the average size of a farm in Lithuania by was 17.5 ha (Table 1.10), i.e. by 7.4% larger than in 2011 and by 21.5% larger than in 2008. In total, in 2012 the number of farms which declared UAA decreased by 4.7 as compared to 2011, whereas their declared area increased by 2.2%. Even though in 2012, like in 2011, farms covering up to 5 ha accounted for over 50% of the total number of farms which declared UAA, their number in 2012, however, decreased by 6.9%. As compared to 2008, the number of such farms dropped by 14.4 thousand, or by 14.8%. Every year the group of farms with 5.1–10 ha is also reducing. Within the reference period the number of farms in this group decreased by 17.1%, but their share in the structure changed insignificantly. The number of farms in the groups covering from 10.1 to 20 ha, and from 20.1 to 50 ha went on reducing and in 2012, as compared to 2008, decreased by 11.5 and 6.2%, respectively. Nevertheless, in the structure of farms the share of these groups increased slightly. Within the period of five years the number of farms increased in the groups with 50.1-100 ha and with 100.1-500 ha, respectively by 20.5% and 36.7%. The number of farms in the group of the largest – covering over 500 ha – and their share in the structure during 2008–2012 changed insignificantly.

		2008		2009		2010		2011		2012	
Farm size, ha	number, thou.	share, %									
	< 5	97,1	53,3	94,6	53,6	92,1	53,6	88,8	53,1	82,7	51,8
	5,1–10	42,0	23,0	39,3	22,3	37,4	21,7	36,3	21,7	34,8	21,8
	10,1–20	22,7	12,4	21,7	12,3	20,9	12,2	20,6	12,3	20,1	12,6
	20,1–50	12,9	7,1	12,8	7,2	12,6	7,4	12,2	7,3	12,1	7,6
	50,1-100	4,4	2,4	4,6	2,6	4,9	2,9	5,1	3,0	5,3	3,3
	100,1–500	3,0	1,6	3,2	1,8	3,4	2,0	3,8	2,3	4,1	2,6
	> 500	0,4	0,2	0,4	0,2	0,4	0,3	0,4	0,3	0,5	0,3
	All farms	182,5	100	176,6	100	171,8	100	167,3	100	159,5	100,0
	Average	14	,4	15	,0	15	,6	16	,3	17	,5

Table 1.10. Structure of farms by declared agricultural area in 2008–2012

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.

Decrease in the number of farms was influenced by several factors. Due to the processes of restructuring, farms are becoming larger. Some part of the senior farmers, receiving the EU support, is giving up the commercial agricultural production. Moreover, some farmers refuse to declare their areas due to the strict requirements set with regard to good agrarian and environmental condition.

Even though the average size of a farm in Lithuania has been increasing within the recent five years, farms here are smaller than in the neighbouring countries. In 2010 in Latvia farms, on the average, were by 1.2 times larger, and in Estonia by 2.7 times larger (Fig. 1.11). The farmers' farms in Lithuania, however, were larger, on the average, than those in Poland (by 1.8 times) and Slovenia and Hungary.



* 2008, 2012 m.

Fig. 1.11. Average farm size in some EU countries in 2007 and 2010, hectares

Sources: Data of Eurostat and the Agricultural Information and Rural Business Centre.

86% of the farms in Lithuania are small-scale farms, under 20 ha, they account for 27% of the total area covered by the farms in the country. The relatively worse situation is in Romania (by number 99%, by area 43%), Bulgaria (by number 96%, by area 15%), Slovenia (by number 95%, by area 80%), Poland (by number 92%, by area 53%). The biggest number of large farms (over 100 ha) is in the United Kingdom (by number 21%, by area 71%), Luxembourg (by number 20%, by area 49%), Denmark (by number 19%, by area 65%), and the Czech Republic (by number 19%, by area 89%). In Lithuania the farms larger than 100 ha account for 3% with 47% of all UAA belonging to them (Table 1.11).

Country	≤4,9 ha		5–19,9 ha		20–49,9 ha		50–99,9 ha		≥100 ha	
Country	area	number	area	number	area	number	area	number	Area	Number
Belgium	2	23	10	28	30	28	34	16	24	5
Bulgaria	10	91	5	5	5	2	5	1	75	1
Czech Republic	0	15	2	36	4	19	5	11	89	19
Denmark	0	7	8	38	11	22	16	14	65	19
Germany	0	9	8	38	15	25	22	17	55	11
Estonia	4	34	11	37	14	14	16	6	55	9
Ireland	1	7	13	35	36	40	28	15	22	3
Greece	28	77	34	18	21	4	10	1	7	0
Spain	4	53	23	26	16	11	10	5	47	5
France	2	27	4	19	11	17	25	19	57	18
Italy	15	73	22	19	19	5	14	2	29	1
Cyprus	38	89	22	8	15	2	11	1	14	0
Latvia	11	34	21	48	14	12	12	3	42	3
Lithuania*	8	52	19	34	13	8	13	3	47	3
Luxembourg	1	17	3	18	10	16	36	29	49	20
Hungary	9	87	7	8	7	3	7	1	70	1
Netherlands	11	29	13	28	10	27	8	13	58	3
Austria	8	32	25	39	29	21	17	6	20	2
Poland	16	55	37	37	18	6	8	1	21	1
Portugal	16	76	15	17	10	4	8	1	51	2
Romania	30	93	13	6	4	0	4	0	49	1
Slovenia	28	61	52	34	13	4	3	1	4	0
Slovakia	1	64	2	18	2	6	2	3	93	9
Finland	3	10	20	33	34	34	26	17	16	6
Sweden	4	13	23	42	20	21	18	13	35	11
United Kingdom	1	9	4	29	9	24	15	17	71	21

Table 1.11. Farm structure by area and number in Lithuania and other
EU countries in 2010, per cent

* 2012.

Sources: Data of Eurostat and the Agricultural Information and Rural Business Centre.

According to the AIRBC data, by the end of 2012, the Lithuanian Register of Holdings held a record of 199.2 thousand of natural persons – owners of the holdings. As compared to 2011, the number of registered holdings decreased by 5.0%. Such a decrease in the number of holdings resulted from the simplified procedure for withdrawal of the holdings from registration after the death of the owner on condition that agricultural activity has not been carried out for three years or the data were not updated for the same period. Due to those amendments 11.0 thousand of holdings where agricultural activities were not carried out and the data whereof did not comply with the actual situation were removed from registration or their removal was initiated. Even though the number of holdings decreased substantially, the area of land managed by the owners changed very insignificantly - just by 0.1%, to 2.83 million ha of the total land area, where their managed UAA area did not change (reached 2.3 million ha). This evidences that no agricultural or alternative activities have been carried out in the holdings removed from registration. The average size of a holding in 2012 by total holding area was 14.1 ha, by UAA – 11.8 ha. The number of holdings with UAA up to 5 ha comprised 64.5% of all the holdings (12.6% of all UAA) (Fig. 1.12). In 2012, as compared to 2011, the number of holdings of that size decreased by 6.6%, since the majority of holdings removed from registration was small-scale holdings. The number of holdings covering 5–20 ha increased insignificantly in the structure -0.5 percentage point, and by the portion of UAA decreased by 0.5 percentage points. In 2012, the number of UAA increased in the group of 100-300 ha. The total UAA area and the number of holdings in this group increased by more than 2.8%. In the group of over 300 ha the total number of holdings and the total UAA area increased by 3.6 and 3.9%, respectively.



Fig. 1.12. Distribution of holdings and their agricultural area by group of different size in Lithuania in 2012, per cent

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

In the areas favourable for farming 54.8% of UAA in the total number of registered holdings are registered. In 2012, 44.0% of the owners of all holdings were

over 60. This tendency has also retained in the analysis of holding owners by regions, where the share of owners over 60 in highly disadvantaged areas exceeds 51.2%. Young farmers under 40 accounted for 13.0% of all the holdings in the country, their largest share in the areas favourable for farming making 13.5% (Table 1.12).

Indicators		Areas							
mulcators		highly disadvantaged	less disadvantaged	normal					
Number of holdings, %		11,0	41,1	47,9					
Area of holdings, %		8,5	36,7	54,8					
Average size of holding, ha	L	11,0	12,8	16,4					
	< 40 year	11,2	13,0	13,5					
Number of holding owners by age, %	40–60 year	37,6	42,4	44,7					
0, 460, 70	>60year	51,2	44,6	41,8					

Table 1.12. Distribution of holdings by type of farming area and owners' age in 2012

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

Almost half of UAA is managed by 113.8 thousand owners of registered farmers' farms –57.6% of the owners of all holdings. The number of registered farmers' farms in 2012 increased by 2.4%, as compared to 2011. Over the period of 2011–2012 the structure of farmers' farms did not change, though a slight increase was noted in all groups. In Lithuania the farms covering from 3 to 10 ha of land (41%) prevailed, farms of up to 3 ha comprised 30% in the structure, the largest farms accounted for 2%. This reveals that an insignificant process of farm expansion is going up (Fig. 1.13).



Fig. 1.13. Number of registered family farms by size in 2008–2012, 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, since 41% of the registered farmers and owners of holders was at the age of retirement (over 62) and 17.2% – persons under 40, i.e. young farmers (Fig. 1.14).



Fig. 1.14. Structure of registered farmers by age in 2012

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

The EU CAP measures have impacted the process of farm restructuring. Under the 2007–2013 Rural Development Programme, as during the previous period, senior farmers are entitled to give up commercial agricultural production and transfer land holdings to younger farmers. Aiming at accelerating the process of farm restructuring, support is granted to semi-subsistence farms by reorganizing them into commercial farms. Moreover, support is granted to agricultural entities implementing the EU veterinary, sanitary and environmental requirements. In 2012 the National Paying Agency collected 132.8 thousand applications for the EU support under the rural development measures. The requested amount was by 51.3% lower than in the previous year – LTL 0.98 billion. Rural people found two measures under Axis 1 most attractive "Use of Advisory Services" and "Setting up of Young Farmers".

In 2012 the certified organic production area in Lithuania covered 162.7 thou. ha. During the reference period of 2008–2012 the certified area increased by 27.7%, and the number of farmers since 2008 has decreased by 10.5%. In 2012, as compared to 2011, the area increased by 3.0%, the number of farms dropped insignificantly – by 3.3% (Fig. 1.15). The average size of the certified farm (including fisheries farms) in 2012, as compared to 2011, went up from 60.8 to 64.8 ha.




Source: Data of the Public Enterprise "Ekoagros".

Food industry enterprises. In 2012, 890 enterprises for manufacture of food products and beverages were in operation in Lithuania, including 21.7% individual enterprises. During the period of 2008–2012 the total number of enterprises increased by 0.7%, and the number of individual companies decreased by more than 36.3% (Fig.1.16).



Fig. 1.16. Number of enterprises of manufacture of food products and beverages in 2008–2012

According to the Department of Statistics, most of food production companies are located close to the major cities. 25.6% of all food and beverage production enterprises are sited in Kaunas County, 19.4% in Vilnius County (Fig. 1.17). The least number of food industry enterprises is in the counties of Utena and Alytus, accounting for 2.8% and 3.9%, respectively. In 2012, if compared to 2011, the number of enterprises in almost all the counties got increased. The number of food and beverage production increased most of all in the counties of Vilnius, Kaunas and Tauragé – by 13.8%, 7.5% and 4.5%, respectively.



Fig. 1.17. Number of enterprises of manufacture of food and beverages by county in 2012 (at the end of the year)

Source: Data of Statistics Lithuania.

During the reference period of 2008–2012, the number of companies in certain food production sectors – preservation and processing of fish and fish products, preparation, processing and conservation of fruit, berries and vegetables – increased by 2.1% and 1.4%, respectively. The number of enterprises involved in the manufacture of grain milling products, starch and starch products, meat and meat products, milk and dairy products dropped – 17.6%, 8.2% and 7.4%, respectively (Table 1.13).

The total number of employees involved in the manufacture of food products and beverages in 2012, as compared to 2011, decreased slightly – by 0.4%, but in comparison with 2008 – by 13.5%. During the reference period of 2008–2012, the highest decrease in the number of employees was fixed in 2012. Tendencies in various sectors were different. In 2012, as compared to 2011, the decrease in employees was most substantial in the sector of the manufacture of meat and meat products – 19.7% and in the sector of milk and dairy products – 10.0%. In comparison with 2011, the number of employees went up in the companies involved in the preparation, processing and conservation of fruit, berries and vegetables (by 1.9%). In 2012 if taken by sector the majority of enterprises operated in the sector of bakery products (349 enterprises) and in the sector of manufacture of meat and meat products whereas by employee number they were relatively smaller than the enterprises in other sectors.

Indicators	2008	2009	2010	2011	2012			
Production of food products and beverages								
Number of enterprises	884	851	896	844	890			
Number of employees	47183	49465	42957	41000	40828			
Sales in domestic market, LTL mill.	6405,5	5552,6	6337,6	7341,5	7877,7			
Export value, LTL mill.	3359,0	3099,5	4247,5	4971,7	5728,3			
Production of grain m	illing prod	lucts and s	tarch					
Number of enterprises	34	30	31	28	28			
Number of employees	1091	1134	1229	1245	1063			
Sales in domestic market, LTL mill.	180,9	118,8	176,6	298,2	274,83			
Export value, LTL mill.	167,2	154,0	214,1	353,2	355,3			
Production of me	at and mea	at products	5					
Number of enterprises	182	170	182	159	167			
Number of employees	10421	10355	9103	8726	8372			
Sales in domestic market, LTL mill.	1571,1	1221,8	1151,6	1306,4	1779,6			
Export value, LTL mill.	420,1	351,0	407,9	522,7	591,2			
Production of mi	lk and dair	y products	5					
Number of enterprises	27	30	33	29	25			
Number of employees	6346	8899	5848	5526	5713			
Sales in domestic market, LTL mill.	1662,9	1227,0	1525,8	1903,2	1892,0			
Export value, LTL mill.	1330,2	903,9	1288,1	1608,1	1822,1			
Preservation and process	sing of fish	and fish p	oroducts					
Number of enterprises	48	46	52	44	49			
Number of employees	4601	4529	4582	4181	4565			
Sales in domestic market, mill. Lt	234,1	205,1	234,5	256,1	265,0			
Export value, mill. Lt	659,0	701,9	898,0	989,2	1025,3			
Preparation, processing and conse	rvation of	fruit, berri	es and veg	getables				
Number of enterprises	34	34	36	32	39			
Number of employees	1033	972	985	934	1053			
Sales in domestic market, LTL mill.	131,3	104,5	89,3	100,1	137,3			
Export value, LTL mill.	56,8	50,0	52,1	74,8	103,0			

Table 1.13. Entities of the food industry in 2008–2012

* VAT and excise duty incl.

The process of production concentration in the Lithuanian industry of food products and beverages though slowly but is continuing. In the period of 2008–2012 the total number of production enterprises varied and in the past years has increased, however, with the reduction of the number of employees, the average number of employees per enterprise decreased by 14.1%. The average number of employees in different sectors in 2012 varied distinctly: the smallest number was in the sector of preparation, processing and canning of animal and vegetable fats and oils, and in the sector of preparation, processing and canning of fruit, berries and vegetables (16 and 27, respectively), and the biggest number was in the manufacture of milk and dairy products and in the preparation and processing of fish and fish products (229 and 93 employees, accordingly.

In 2012, enterprises involved in the manufacture of food products and beverages in the counties of Telšiai, Marijampolė and Utena were most numerous by employee number. This tendency has persisted for years. By average number of employees per enterprise the counties of Telšiai, Utena and Marijampolė are in the lead, being ahead of the average in Lithuania by 2.6; 1.8 and 1.5 times, respectively (Fig. 1.18).



Fig. 1.18. Average number of employees per enterprise of manufacture of food and beverages by county in 2012 (at the end of the year)

Source: Data of Statistics Lithuania.

44.3% 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), 35.6% to small (10–49 employees) and 16.4% to medium-sized (50–249 employees) companies (Fig. 1.19). Enterprises with over 250 employees accounted for 3.7% in 2012, whereas the number of employees working here comprised nearly 42.3% of the total number of employees involved in the manufacture of food products and beverages.



Fig. 1.19. Structure of enterprises of manufacture of food and beverages by number of employees in 2012

Source: Data of Statistics Lithuania.

Product sales volumes of the enterprises demonstrate changes and a level of production concentration. In 2012, as compared to 2008, the sales per enterprise of the manufacture of food and beverages increased, on the average, by 19.6%, and, if compared to 2011, by 10.5%.

The most rapid increase of production concentration was in the sector of production of grain milling products, starch and starch products where the average production volumes per enterprise within five years increased by 1.8 times, in the sector of preservation and processing of fish and fish products by 1.4 times and in the sector of preparation, processing and canning of fruit, berries and vegetables by 1.3 times.

The highest concentration of production is fixed in the sector of milk and dairy products where average sales volumes per enterprise in 2012 amounted to LTL 148.6 million, and revenues raised by four biggest companies accounted for 79% of the total revenues in the sector. Sales volumes in the industry of preservation and processing of fish and fish products were by 1.7 times higher than the average sales volumes per food production enterprise.

If assessed by counties, in 2012 the average revenues derived from the sales per food and beverage production company were highest in the counties of Telšiai, Utena, Marijampolė and Panevėžys. One food production company in the Telšiai County received by 2.2 times more revenue than one company on the average in the country and by 5.7 times more than one company in the Šiauliai County. Relatively high revenue was gained by the companies in the branch under analysis operating in the Utena County. They exceeded the national average by 1.9 times (Fig. 1.20). Such a high average level of revenues per company was conditioned by the fact that the largest food production companies, like AB "Rokiškio sūris", AB "Pieno žvaigždės" and AB "Žemaitijos pienas", were operating in the above-mentioned counties.



Fig. 1.20. Average annual income from sales per enterprise of manufacture of food and beverages in Lithuania by county in 2012, LTL million

Source: Data of Statistics Lithuania.

Average revenues gained by the companies involved in the manufacture of food products and beverages in 2012 were by 3.7% higher than in the previous year. The important factor that predetermined such tendencies was the increased consumption on the domestic and foreign markets. The development of the food and beverage industry in the future will be ensured due to the existing domestic and foreign markets and search for new markets.

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

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

In 2012 a tendency for export growth has become more distinctly expressed, whereas domestic market even declined. Export increased by 11.8%, and final domestic demand covering houshold and State expenditure and investments as calculated at comparable prices decreased by 0.5%. A decline was conditioned by 14% investement reduction. Domestic demand dynamics in the food industry is different.

Food, beverages and tobacco turnover in terms of value within the reference period decreased by 8.9%, and if calculated per capita increased by 2.2%. Different tendencies were partly due to the reduction in the number of the population. It should be noted that sales that decreased in 2009–2010 started growing again in 2011 and in 2012 exceeded the level of 2011 by 4.5%, and if calculated per capita even by 12.5% (Table 2.1). This was influenced not only as a result of the increased wages, but also due to the increasing expenditure for food in the household budget.

Table 2.1. Retail sales of food products, alcoholic beverages and tobacco products in 2008–2012

Indicators	2008	2009	2010	2011	2012	Change 2012 compared to 2008, %
Total sales, LTL mill.	13192,4	11391,5	10717,2	11498,5	12020,4	-8,9
Per capita, LTL	3929	3411	3261	3569	4015	2,2

Source: Data of Statistics Lithuania

In 2012 the average monthly net earnings increased by 4.1%, and the price index of food products (in December 2012, as compared to December 2011) was lower by 3.8%. Nevertheless, as compared to 2011, in 2012 for the population of the country only dairy product prices were more affordable, whereas other food products, especially eggs, were less affordable (Table 2.2).

Indicators	2008	2009	2010	2011	2012*	Change 2012 compared to 2008, %
Average monthly net earnings, LTL	1651	1602	1552	1595	1661	0,6
Purchasing power of average monthly	net earnir	ngs in IV	V Q			
beef ham with bone, kg	92	86	101	91	86	-6,5
pork ham without bone, kg	124	125	130	124	117	-5,6
milk, 2.5% fat, 1	703	778	773	658	662	-5,8
butter, 82% fat, kg	87	93	78	81	71	-18,4
eggs, 10 pcs	410	400	442	459	325	-20,7
rye bread, kg	403	379	362	342	330	-18,1
sugar, kg	554	521	543	424	417	-24,7

Table 2.2. Purchasing power of net earnings of employees in the whole economy in 2008–2012

*LIAE calculations.

Source: Data of Statistics Lithuania.

According to the data of the Department of Statistics, in 2012 was harvested a record grain amount – by 43% higher than in 2011. Indicators for livestock slaughtered, milk produced and sugar beets grown were higher than in 2011, wheres egg production dropped. The purchase of agricultural products was considerably higher than in the previous years, grain purchase was even by 87.6% and rapeseed purchase by 1.5 times higher (Table 2.3).

thousand tonnes						
Indicators	2008	2009	2010	2011	2012	Change 2012 compared to 2008, %
Production						
Grain production	3484	3892	2867	3304	4737	36,0
Sugar beet for industry	339	682	723	878	1003	3,0*
Livestock & poultry, slaughtered (l.w.)	295	272	296	299	315	6,8
Milk production	1884	1791	1737	1754	1820	-3,4
Egg production, mill. pieces	891	853	825	817	810	-9,1
Purchase						
Grain	2398	2544	1916	1648	3092	28,9
Rapeseed	299	368	386	395	582	94,6
Potatoes	49	50	55	46	49	0,0
Vegetables	56	57	56	47	56	0,0
Fruit & berries	40	23	25	41	49	22,5
Livestock & poultry (l. w.)	243	215	235	234	244	0,4
Natural milk	1376	1274	1278	1317	1360	-1,2
Milk (equivalent of base fatness)	1661	1534	1540	1587	1638	-1,4
Eggs, mill. pcs.	454	448	446	412	412	-9,3

Table 2.3. Production and purchase of agricultural products in 2008–2012,
thousand tonnes

In Lithuania a record grain harvest in 2012 has not reduced the purchase prices, but even made them higher due to the grain shortage in the world. In our country the purchase prices for food wheat increased in the second half of the year by about 15%, whereas prices for wheat products – flour and wheat flour bread –did not get increased (Table 2.4). Dairy product prices were also lower, as in summer milk purchase prices dropped even by 20%. Retail prices for other most important products in 2012 were by 5–10% higher than in 2011. Only egg prices became distinguished due to the ungrounded growth in prices resulting from adapting of new EU regulations.

Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Beef ham with bone	18,44	18,69	16,47	18,72	19,58	6,2
Pork ham with bone	13,09	11,88	10,63	11,36	12,43	-5,0
Chicken, drawn	8,49	8,80	8,11	8,59	9,05	6,6
Boiled sausages, best quality	16,50	16,31	16,37	15,90	17,08	3,5
Milk, 2.5 % fat, LTL/l	2,32	1,84	2,26	2,50	2,41	3,9
Butter, 82 % fat	18,26	18,98	22,09	23,96	22,91	25,5
Curd, 5–9 % fat	11,63	9,67	11,41	12,59	12,41	6,7
Eggs, 10 pcs	4,33	4,14	3,72	3,73	5,15	18,9
Best quality wheat flour	2,30	2,24	2,40	2,59	2.41	4,8
Rye bread	4,43	4,32	4,62	4,98	5,05	14,0
Best quality wheat flour bread	5,08	4,90	5,42	5,70	5,45	7,3
Potatoes	1,31	0,85	1,20	0,78	0,81	-38,2

Table 2.4. Retail prices of food products in December 2008–2012, LTL per kilogram

Source: Data of Statistics Lithuania.

The share of sales of agricultural and food products on the domestic market shows that a substantial proportion of the processed agricultural products is exported by the Lithuanian milk producers, cattle breeders, poultry farms and vegetable and fruit processors (Table 2.5). Nevertheless, the share of sales of pork and grain products remains high on the domestic market.

Table 2.5. The share of sales of key food products in the domestic market in 2008–2012, per cent

/ 1					
Products	2008	2009	2010	2011	2012
Dairy products	48,7	50,3	50,0	48,9	47,2
Beef	29,3	28,3	27,0	24,6	38,9
Pork	94,8	95,7	87,7	94,6	94,2
Poultry meat	77,2	71,1	63,3	72,3	62,1
Eggs	70,0	92,3	100,0	97,8	76,3
Rye bread	96,5	95,2	94,7	95,0	95,4
Potato products	44,8	46,1	45,5	56,7	30,1
Fruit and vegetable products	59,9	78,7	65,2	64,5	67,6

A significant part of agricultural products is exported by the producers directly: grain (about 40%), calves (about 40%), pigs (about 20%).

About 4% of all the food products is sold on market places. Meat and meat products account for almost half of these products (Table 2.6).

Table 2.6. Turnover of food products on market places in 2008–2012, LTL million								
Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %		
Food products	595,4	581,0	539,8	479,4	431,8	-27,5		
Meat and meat products	334,0	334,4	312,6	263,3	219,4	-34,3		
Vegetables and potatoes	128,1	124,4	111,4	108,0	111,9	-12,6		
Fruit and berries	62,0	54,6	47,5	47,4	44,0	-29,0		
Milk and milk products	13,7	16,0	15,8	14,4	12,4	-9,5		
Eggs	25,2	23,0	19,1	14,0	10,6	-58,0		
Other food products	32,5	28,6	33,3	32,2	33,5	3,1		

Table 2.6. Turnover of food	products on market	places in 2008–2012	. LTL million
	products on marner		,

Source: Data of Statistics Lithuania.

Maisto produktų apyvartos sumažėjimas turguose per 2009–2012 metus susijęs ne tik su krizės laikotarpiu, bet ir su kasos aparatų įvedimu dengtose vietose.

The decrease of food product turnover on market places during the period of 2009–2012 is not only related to the period of crisis, but also with the introduction of cash register counters to be used in covered sites.

2. Foreign trade in agricultural and food products

At the beginning of the reference period due to an economic crisis the decreased export and import in agricultural and food products recovered in 2010 and in later years went on increasing every year. In 2012, as compared to the pre-crisis year 2008, export value increased by more than 1.6 times, import by almost 1.4, and foreign trade turnover by 1.5 times. In 2012, as compared to 2011, exports increased by 1.3 and imports by almost 1.2 times.

According to the preliminary data of the Department of Statistics (as at 15 February 2013), in 2012 Lithuania exported agricultural and food products for LTL 14.6 billion and imported for LTL 11.2 billion. Exports of products of Lithuanian origin reached LTL 9.7 billion, constituted 66% of the total exports of agricultural and food products and increased by 25% and exports of non-Lithuanian products was up by 1.3 times. Balance of trade was positive and as compared to 2011 increased by LTL 1.4 billion (Fig. 2.1). Foreign trade turnover reached LTL 25.9 billion. The rate of import coverage by export made 130%.



Fig. 2.1. Export, import and foreign trade balance of agricultural and food products in 2008–2012, LTL million

Source: Data of Statistics Lithuania.

The share of agricultural and food products in Lithuania's foreign trade has been increasing every year until 2009. In 2009 it was highest throughout many years: exports accounted for 19.6%, imports for 14.7%, and the total turnover for 17.0%. This was due to the reduction of the purchasing power of the population during crisis in Lithuania and other countries. For that reason the demand for not essential goods fell down, and less food products were bought. In 2010, with the revival of Lithuania's and global economy, the share of agricultural and food products started decreasing. In 2010 their export share amounted to 18.0% and that of import to 13.1%, in 2011 – even less, respectively, 16.6 and 12.%, whereas in 2012 it went up again (1.8 and 0.8 percentage points, respectively) and constituted 18.4 and 13.0%.

The EU share of exports of agricultural and food products after its increase in 2009 later went on dropping annually from 64% in 2009 to 54% in 2012, even though the value of exports grew within the whole period, and in 2012 compared to 2008 after having increased by 1.5 times it comprised LTL 7852 million. The share of export to third countries within the same period increased from 36 to 46%, and in 2012 its value reached LTL 6780 million (compared to 2008 went up by 1.8 times). Exports to Russia , Belarus and Kazakhstan (the present Customs Union) also have increased, and the value, in comparison with 2008, increased by 1.7 times and if compared to 2009 by 2.3 times and amounted to LTL 4805 million. The share of exports to this group of countries increased from 26% in 2009 to 33% in 2012 (Fig. 2.2).

Production of Agricultural and Food Products and Sales in the Domestic and Foreign Markets



Fig. 2.2. The share of export of agricultural and food products to various country groups in total Lithuania's export in 2008–2012, per cent

Source: Data of Statistics Lithuania.

In 2012 Lithuania exported goods into 182 countries, agricultural and food products were exported into 131 countries (of Lithuanian origin into 129 countries). The major share of exports included vegetable products (CN Section II). Their value reached LTL 5977 million and accounted for 40.8% of the total value of exported agricultural and food products. Prepared foodstuffs, beverages, spirits and tobacco products comprised 32.9% (CN Section IV, LTL 4820 million), live animals and animal products 25.1% (CN Section I, LTL 3666 million), and fats and oils only 1.2% (CN Section III).

The major part (90%) of Lithuanian products consisted of products under CN Section I (Fig. 2.3).



Fig. 2.3. Structure of export by CN section and origin of products in 2012, per cent *Source: Data of Statistics Lithuania.*

Compared to 2011, exports of products under 20 of the 24 CN sections increased. The highest increase of export covered cereals – by 2.1 times, oil seeds by

1.9 times, vegetables by 1.3 times, fruit by 1.2%, beverages and spirits by 1.4 times, milk and dairy products, eggs, honey by 15% (Fig. 2.4).





As in the previous years, the largest part of exports belonged to dairy products, eggs and honey – for LTL 1898 million (CN Chapter 04, accounted for 13.0% of the total agricultural and food product exports). Due to the exclusive harvest of cereals in 2012, their export increased substantially, its value amounting to LTL 1781 million (12.2% – second as to the share of exports by volume). Exports of fruit (for LTL 1519 million, accounted for 10.4%) and vegetables (LTL 1267 million, 8.7%) were considerable.

The structure of the total exports of agricultural and food products differs from the structure of exports of the products of Lithuanian origin. The key products of exports – dairy products and cereals – made one fourth (24.7%) of the total exports and over one third (36.1%) of the exports of Lithuanian origin products.

The value of the products of Lithuanian origin exported in 2012 amounted to LTL 9678 million (66% of the total exports of agricultural and food products). Compared to 2011, the value increased by 25%. 60% of the products of Lithuanian origin included milk and dairy products, eggs and honey, cereals, tobacco products, oil seeds, residues and waste from the food industries and prepared animal fodder.

Over 50% export share was taken by the products of Lithuanian origin in fifteen chapters out of products under twent-four CN chapters, mostly – over 90% – tobacco products, cereals, products of the milling industry, live animals, milk and dairy products, and oil seeds. Various beverages manufactured in Lithuania accounted for 34% of the total exports of beverages, vegetables – 13% of the total vegetable exports, fruit – 6% of the total export of fruit, and coffee, tea and spices – 4% of exports of the respective products (Fig. 2.5).



Fig. 2.5. Exports of Lithuanian and non-Lithuanian origin agricultural and food products in 2012, LTL million

Within the reference period, exports of almost all Lithuanian origin products have increased (upon analysis of the CN chapters of two symbols). Exports of cereals increased most of all - by 2.1 times. Export of oil seeds was by 2.0 times higher, preparations of cereals, flour, starch or milk and beverages and spirits by 1.4 times, and sugar by 1.3 times.

In 2012 the value of exports of milk and dairy products, if compared to 2011, increased by 13.8%. Milk and dairy products accounted for 12.5% of the total exports of agricultural and food products, whereas part of the total exports of these products decreased by 1.6 percentage points. 97% of the above-mentioned products were manufactured in Lithuania.

Within the reference period, export of Lithuanian milk and dairy products increased by 14%, its value reaching LTL 1769 million. 52% of the export of dairy products consisted of cheeses and curd. Exports of these products totalled 78.6 thou. t, by 14.9 thou. t more than in 2011. The export value increased by 17.5%. Not concentrated cream and milk shipment amounted to 142.5 thou. t, by 6.1 thou. t more, whereas the value decreased by 20%. Concentrated milk and cream comprised 15%, with their export value increased by 37%. Compared to 2011, the export of whey of various forms was higher by 24 %. The amount of exported butter and other milk fats increased by 1.7 times (5.1 thou. t was shipped), with their value increased by 1.5 times.





The main export countries of dairy products are Russia, Italy, Germany, and Poland. Exports to these countries accounted for 67% of the dairy products.

The exclusive harvest of cereals in 2012 ensured their high exports – the value, as compared to 2011, increased by 2.1 times, to LTL 1721 million, and accounted for 12.2% of the total export value of agricultural and food products. Export of cereals totalled 2010 thou. t, of which 97% grown in Lithuania. In the structure of exports of Lithuanian origin agricultural and food products in terms of value cereals comprised 18%. The key export partners were the Islamic Republic of Iran, Saudi Arabia, Latvia,

and Germany. Export of cereals into these countries accounted for 72% of the total export of cereals.

Third in terms of export value is fruit with exports amounting to LTL 1229 million. Fruit of Lithuanian origin, however, accounted just for 6.1% (in 2011 - 6.6%). Bilberries, gathered in Lithuania and frozen, made the largest part here. 22% of fruit and berries of Lithuanian origin was exported to China, 18% to Germany, and 16% to Sweden.

Vegetables exported in 2012 amounted to LTL 1267 million, comprising 8.7% of the total exports, the share of their exports increased by 0.5 percentage point. Within the reference period, export value increased by 33%, whereas Lithuanian origin products accounted for 15%. 90% of Lithuanian origin vegetables consisted of champignons cultivated in Lithuania (11.8 thou. t for LTL 57 million were exported), locally gathered chanterelles (2.8 thou. t for LTL 54 million), other kinds of mushrooms (0.5 thou. t for LTL 8.3 million), dried peas (16.6 thou. t for LTL 19 million), and carrots (9.8 thou. t for LTL 9.1 million).

In 2012, 6.3% of the export value belonged to beverages and spirits, with export value increase by 36%. Lithuanian origin products here, however, accounted just for 34% of the export value.

The export share of tobacco products comprised 6.3% of the total exports of agricultural and food products, and all of them were manufactured in Lithuania. Tobacco products accounted for 9.2% of the export value of Lithuanian origin products.

The export value of the residues and waste from the food industries and prepared animal fodder was by 14% higher than in 2011. These products covered 5.4% of the total exports. Products of Lithuanian origin accounted for 80% of the total export of the above products and compared to 2011 their value increased by 6.5%. Products used for animal fodder made the major part of exports here.

Harvest of oilseeds in 2012 was higher than usual. Compared to 2011, it increased by 1.9 times. Seeds of Lithuanian origin accounted for 92%. Exports of rapeseed cultivated in Lithuania were by 1.9 times higher, with the value increased by 2.1 times. 81% of rapeseed was exported to Germany, Belgium, Poland, Latvia, and the Netherlands.

In comparison with 2011, export of meat in 2012 increased by 8.7% and accounted for 5.0% of the total exports of agricultural and food products. 85% of the exported meat was of Lithuanian origin. 46% of the export value belonged to bovine meat, 34% to poultry meat, and 11% to meat of swine.

Meat of bovine animals of Lithuanian origin comprised the major part of exports – 25.0 thou. t, with its value – LTL 333 million (amount reduced by 1.2%, value increased by 4.0%). Average export price for fresh or chilled bovine meat increased from 12678 to 13264 LTL/t (4.6%), frozen – from 12214 to 13653 LTL/t (11.8%). Bovine meat was exported to 22 countries. 80% of bovine meat was shipped into Russia, Italy, the Netherlands, and Sweden.

Export of Lithuanian poultry meat in 2012 was by 19% higher, the export value increased by 20%. 95% of the exported Lithuanian poultry meat consisted of chicken. The average Lithuanian poultry meat export price changed slightly – increased from 6810 to 6857 Lt/t. Poultry meat was exported to 26 countries, 80% of which was shipped into the Netherlands, Latvia, the United Kingdom, Estonia, and France.

Export of pork was by 11% higher than in 2011, amounting to LTL 82.2 million, with the average export price increase from 7657 to 8427 LTL/t. The export share of Lithuanian pork was 44%. In 2012 pork was exported to 16 countries, 78% to Latvia, Russia, and Estonia.



Dynamics of exports of Lithuanian origin meat in 2008–2012 is given in Fig. 2.7.

Fig. 2.7. Dynamics of the export of Lithuanian origin meat in 2008–2012, LTL million *Source: Data of Statistics Lithuania.*

Exports of fish and crustaceans accounted for 5.0% of the total export value of agricultural and food products. If compared to 2011, the value dropped by 2.3%. Products of Lithuanian origin accounted for 83% of the total exports of fish and crustaceans.

3.5% of the total exports of agricultural and food products consisted of preparations of meat and fish. Compared to 2011, export increased by 25%. Part of Lithuanian origin products accounted for 83%. Preparations of fish accounted for 70% of the export value, preparations of meat for 30%. The major part of exports went to Russia (15%), France (14%), Germany, Latvia (13% each), and Estonia (10%).

Various food products under CN Chapter 21 accounted for 3.4% of the export of agricultural and food products. In 2012, as compared to 2011, their export increased by 15%. The share of Lithuanian origin products constituted 40%. Mainly were exported such products under this Chapter as food additives, spread mixes, coffee extracts, ice-cream, and various souces. The major part of these products was exported to Russia (32%), Latvia (27%), and Estonia (14%).

In 2012 the harvest of sugar beet was good. Sugar export increased by 28%. 78% of exported sugar was of Lithuanian origin. Export of white sugar manufactured in Lithuania amounted to 95.1 thou. t for LTL 171 million. 86% of white sugar was exported to Latvia (56%), Russia (16%), and Estonia (14%).

Analysis of agricultural and food products exported in 2012 to the EU and third countries revealed that export to the EU amounted to LTL 7852 million (54% of the total export), to third countries for LTL 6780 million. 71% of the products exported to third countries were those belonging to the Customs Union (Russia, Belarus, and

Kazakhstan). Compared to 2011, exports to the EU countries increased by 17%, to third countries by 1.4 times. Products of Lithuanian origin accounted for 83% of exports to the EU and, in comparison with 2011, increased by 17%, the share of exports to third countries comprised 46%, and the value increased by 45%.





In 2012 products of Lithuanian origin accounted for 26% of exports to the Customs Union countries. Compared to 2011, the value went up by 7%. Products of non-Lithuanian origin were exported for LTL 3543 million, their exports increased by nearly 1.4 times. The major part of exports to the Customs Union countries consisted of Lithuanian origin products – for LTL 552 million (including cheese and curd – for LTL 501 million), meat and meat by-products for LTL 245 million. Exports to Russia covered 90% of the total exports to the Customs Union countries, 8.0% went to Belarus and 2.0% to Kazakhstan.

The most important export partners of agricultural and food products were Russia, Latvia, Germany, Poland, Estonia, the Islamic Republic of Iran, and the Netherlands. Export to the above countries accounted for 70% of the total export of agricultural and food products.

Even though when making an analysis of the export structure of Lithuanian origin products by country, a list of the main partners included a good number of the same countries as in surveying by total export value, their order on the list has changed. The largest portion of Lithuanian origin products were exported to Germany. Latvia and Russia were not much behind. Poland, the Islamic Republic of Iran, the Netherlands and Estonia were also listed as the main partners. Export to the said countries accounted for 62% of the total export of Lithuanian origin products.

In 2012 Lithuania imported goods from 159 countries, agricultural and food products were imported from 103 countries. Lithuania's imported agricultural and food products amounted to LTL 11.2 billion, by 17% more than in 2011. Agricultural and food products comprised 13% of the total imports of goods into Lithuania. Of the twenty-four CN chapters, import of products under four chapters decreased, and import of products under the remaining twenty chapters either increased or remained the same. The highest increase, almost by 1.4 times, of imports was of live animals, by 1.3 times of vegetables, plants, cut flowers and grain each, by 1.2 times each of various beverages, fats and oils, fruit and nuts, preparations of cereals, flour, starch and bakery confectionery, while oilseeds and fodder decreased by 5.9% and by 11% products of the milling industry, malt and starches.

Within the reference period, as earlier, the major part of imports consisted of fruit and nuts, their value comprising 15% of the total imports of agricultural and food products. Plenty of vegetables, various beverages, fish and crustaceans, milk and dairy products, eggs and honey, meat, tobacco and tobacco products, miscellaneous edible preparations under CN Chapter 21 (extracts, food additives, and spreads) were imported. The value of the above-mentioned products accounted for more than 67% of the total imports of agricultural and food products (Fig. 2.9).

In 2012 edible vegetables were second by import value. Their import increased by 32% and accounted for 11% of the total imports of agricultural and food products. Import of champignons, paprika, chanterelles, and aubergines accounted for 37% (re-exported 79 thou. t of 95% imported) of the import of products of this group, tomatoes for 34% (re-exported 73 thou. t, 83%), various lettuces for 8.0% (re-exported 17 thou. t, 87%). The major part of vegetables was imported from the Netherlands (76%), Poland (7.3%) and Spain (5.5%). If assessed by weight, 81% of the products under this chapter were re-exported.



Fig. 2.9. Structure of the import of agricultural and food products in 2012 *Source: Data of Statistics Lithuania.*

Various beverages were third in terms of import volume. Imports of beverages increased by 24%, wine comprised 45% of the import value in this group, spirits 24%, mineral and carbonated waters with sugar or sweetening matter and other flavours 10%, and beer 8.0%. Wine was imported from 37 world countries, the share of imports from France, Italy, and Spain comprised 78% of the total imported wine. Strong spirits were mostly shipped from France, Germany, Latvia, the United Kingdom, Sweden, and Russia (over 64%), mineral and carbonated waters with various flavours from Poland, Latvia, Austria, and Hungary (over 66%), beer from Belarus, Latvia, Germany, Estonia, the Netherlands, and Poland (over 75%).

In 2012 imports of fish and crustaceans in terms of value increased by 11%. 33 thou. t of fresh and chilled fish, 29 thou. t of fish fillet and other fish meat, 39 thou. t of frozen fish was imported. Import prices for all fish within the reference period changed slightly (average import price for fresh and chilled fish decreased by 9.0%, from 13069 to 11949 LTL/t, prices for fish fillet and other fish meat increased by 6.0% – from 8354 to 8852 LTL/t. 30% of fish and crustaceans was imported from Sweden, 11% from each Norway and Germany, 6.1% from each Latvia and Kazakhstan, 4.1% from China. Imports from these countries accounted for 69% of all imported fish and crustaceans.

Imports of milk and dairy products, birds' eggs and natural honey compared to 2011 increased by 13%. Eggs and honey constitute a small part of the value of this chapter products (6.3%); egg import, as compared to 2011, increased by 48%, their imports amounted to LTL 30 million. As every year, the major part of imports consisted of raw milk, its share accounting for 61% of the total value of imported milk products.

Production of Agricultural and Food Products and Sales in the Domestic and Foreign Markets

Raw milk imports amounted to 381 thou. t (in 2011 - 295 thou. t). Its average price dropped by 7.9% – from 1145 to 1055 LTL/t. 77% of raw milk was imported from Latvia, 33% from Estonia. Imports of cheeses and curd were quite considerable: in 2012 - 8.5 thou. t (in 2011 - 7.7 thou. t), import increased by 9.6%. 35% of cheeses and curd in terms of value was imported from Poland, 21% from Latvia, 18% from Germany, and 12% from Estonia.



Fig. 2.10. Import of agricultural and food products in 2011 and 2012, LTL million *Source: Data of Statistics Lithuania.*

Imports from the EU constitute the largest share of agricultural and food product import -84% (LTL 9449 million). The share of the old EU Member States (EU-15), if compared to 2011, increased by 2.6 percentage points, making 53% of the products imported from the EU.





Source: Data of Statistics Lithuania.

In 2012 imports of agricultural and food products from the countries of all groups exceeded the 2008 level. Volumes of imports from Russia, Belarus and Kazakhstan (Customs Union) and other third countries in 2008–2012 got changed in a similar way, no distinct changes were seen in 2009, whereas the volumes of imports from the EU dropped significantly, even though they exceeded the pre-crisis level already in 2010 from EU-15 and in 2011 from EU-12.

In 2012, with the Customs Union starting its operation, imports from Russia, Belarus and Kazakhstan were by 2 times higher than in 2008, and compared to 2011 increased by 35%. In 2012 imports from these countries accounted for 65% of the imports of agricultural and food products from third countries, imports from other third countries -35%.

In 2012, in comparison with 2011, imports according to all four CN product sections increased. Imports of prepared foodstuffs, beverages and tobacco (CN Section IV, Chapters 16–24) increased by 16%, fats and oils (Section III, Chapter 15) by 23%, vegetable products (CN Section II, Chapters 06–14) by 21% and live animals and animal products (CN Section I, Chapters 01–05) by 13%.



Fig. 2.12. Import of agricultural and food products by CN section in 2011 and 2012, LTL million

Source: Data of Statistics Lithuania

The value of imports from the Netherlands, Poland, Latvia, and Germany comprised nearly 53% of the total value of imported agricultural and food products.



Fig. 2.13. Import of agricultural and food products by country in 2011 and 2012, LTL million

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Analysis of foreign trade in agricultural and food products showed the surplus of trade in products under CN thirteen chapters. The highest positive balance of trade stood for trade in grain, CN Chapter 04 products (milk and dairy products, eggs, and honey), oilseeds and fodder, tobacco and tobacco products, meat and fish products, residues and waste from the food industries and prepared animal fodder. The highest negative balance of trade was noted for fats and oils, various beverages, coffee and tea, fruit and nuts.



Fig. 2.14. Import of agricultural and food products in 2011 and 2012, LTL million *Source: Data of Statistics Lithuania.*

The negative balance of trade in sugar and sugar confectionery, vegetables in 2011 turned into positive in 2012. The surplus of trade in cereals, oilseeds and fodder increased considerably, by 2.3 times. The negative balance of trade in fish increased by 3 times, since fish export decreased by 2.4% and import increased by 11.2%.

The balance of trade with the EU countries like in 2011 was negative, deficit expanded by 2.6% – from LTL 1269 to 1597 million. The surplus of trade with third countries within the reference period increased by more than 1.5 times – from LTL 3219 to 4985 million.

The highest surplus was in trade with Russia (LTL 3926 million), Iraq (LTL 684 million), Latvia (LTL 529 million), the highest deficit – in trade with the Netherlands (LTL 1664 million), Poland (LTL 536 million), and Spain (LTL 309 million).

The foreign trade turnover in 2010 of agricultural and food products after the fall in 2009 started augmenting again. In 2012, if compared to 2009, the turnover increased by 77% and comprised LTL 25.9 billion (Fig. 2.15). Nevertheless, the total foreign trade turnover of Lithuania increased by 93%, therefore, the share of the turnover of agricultural and food products dropped from 17.0% to 15.6%.



Fig. 2.15. Turnover of foreign trade of agricultural and food products and its share in total Lithuania's foreign trade in 2008–2012

Source: Data of Statistics Lithuania.

The highest turnover was in trade with Russia – LTL 4667 million (18% of the total trade turnover of agricultural and food products in 2012), Latvia – LTL 2986 million (12%), the Netherlands – LTL 2843 million (11%), Poland – LTL 2394 million (9.3%), Germany – LTL 2322 million (8.9%). The turnover of trade with the above countries comprised 59% of the total trade turnover of agricultural and food products.

Tendencies of foreign trade in agricultural and foreign products in Lithuania like in other countries depend on global international trade tendencies, impacting the consumer markets and business environment. Due to globalization processes, the importance of trade for global economies will expand still more. Faster transport operations, possibility for easier communication and Internet development are stimulating the trade. International, newly signed bilateral and multilateral agreements, which liberalize the flows of goods curtail or completely eliminate tariff and non-tariff barriers.

3. Changes in production of agricultural and food products

3.1. Cereals

Grain crop farming in Lithuania has become more popular. Good purchase prices for grain and lower, as compared to livestock-breeding, labour input are the main advantages of crop farming development. In the general structure of agricultural production the share of crop farming during the period of 2008–2012 increased by 6.4 percentage points, and that of cereals even by 12.5 percentage points. In 2012 the record harvest of grain (4.6 million t) was not a limit. Good climatic conditions, the increased areas of winter crops guaranteed the additional revenue of LTL 1 billion to the farmers in 2012. The high purchase prices for grain are predicted by global stock exchanges, having a direct impact on our market as well.

Cultivation. Within the period of 2008–2012 the area under grain crops increased just by 14.4%, whereas the structure got changed substantially. Areas under winter cereals the yielding capacity thereof is higher increased by 28.3% and wheat even by 50.6%.

Areas under grain crops in 2012 in Lithuania, as compared to 2008, increased by 14.6% (Fig. 2.16).



Fig. 2.16. Crop area and yield of grain crops in 2008–2012

Source: Data of Statistics Lithuania.

Areas under wheat within the said period expanded by 13.1%, triticale by 23.8%, whereas under barley dropped by 13.9%. Areas under pulses decreased by 5.6%. In 2012 the largest portion of areas under cereals was taken by wheat – 54%, barley 19%, triticale 10%, oats 6%, and rye 5%.

Spring cereals in 2012 accounted for 47% of the total areas under grain crops, the largest portion belonged to spring barley. In 2012 it covered the area of 212.3 thou. ha.

In 2012, as much as 83% of all grain crops was cultivated in farmers' farms (999 thou. ha), the remaining part by agricultural companies and enterprises (214 thou. ha). Compared to 2011, areas under grain crops in farmers' farms increased by 7.4%, and in agricultural companies and enterprises by 12.1%.

In 2012 the hydrometeorological conditions both in winter and in summer were quite favourable for crop development. Therefore, the yield of cereals that year was much higher than in 2011 (Table 2.7). Over the period of 2008–2012 the lowest yield was observed in the years 2010 and 2011.

Kind of grain crops	2008	2009	2010	n2011	2012	Change 2012, compared to 2008, %
Grain crops	3,29	3,38	2,69	2,98	3,94	19,8
cereals	3,35	3,45	2,75	3,03	4,02	20,0
winter cereals	4,14	3,89	3,04	3,03	4,73	14,3
wheat	4,76	4,40	3,40	3,32	5,17	8,6
triticale	3,27	3,16	2,34	2,54	3,82	16,8
rye	2,76	2,53	1,76	2,02	2,81	1,8
barley	3,94	3,83	2,50	2,92	4,42	12,2
spring cereals	2,69	2,87	2,44	3,03	3,27	21,6
wheat	3,01	3,41	3,07	3,47	3,89	29,2
barley	2,88	3,03	2,36	3,01	3,38	17,4
triticale	2,33	2,73	2,00	2,41	2,91	24,9
oat	2,07	2,23	1,53	2,03	2,31	11,6
buckwheat	0,76	0,67	0,74	0,96	0,90	18,4
mixed cereals	1,91	2,01	1,68	1,98	2,25	17,8
grain maize	4,24	4,33	6,66	7,49	6,10	43,9
other cereals	0,73	0,55	1,51	2,00	2,56	3,5 k.
dried pulses grain	1,70	1,80	1,36	1,72	1,89	11,2

Table 2.7. Average yield of grain crops in 2008–201, tonnes per hectare

Source: Data of Statistics Lithuania.

The yield of cereals in Lithuania in 2012, as compared to 2011, increased by 32.7%. The highest increase was achieved in the yield of winter wheat 55.7%, winter triticale 50.4%, and winter barley 49.8%.

Even though the national producers of cereals reached the highest yield of grain in 2012, they have not exceeded the average in the EU countries so far. For example, in 2012 the average yield of wheat (4.5 t/ha) was lower than the EU average (5.3 t/ha) in 2011.

In 2012 in Lithuania the harvest of grain amounted to 4736.5 thou. t or by 1433 thou. t (43.3%) more than in 2011 (Table 2.8).

Kind of grain crops	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Grain crops	3484	3892	2867	3304	4737	35,9
cereals	3422	3806	2797	3226	4657	36,0
winter cereals	1921	2440	1592	1192	2810	46,3
wheat	1381	1749	1250	912	2257	63,4
triticale	286	394	218	187	370	29,4
rye	205	208	87	85	155	-24,4
barley	49	89	37	8	28	-42,9
spring cereals	1501	1366	1205	2034	1847	23,1
wheat	341	351	460	957	742	117,6
barley	922	770	513	752	714	-22,6
triticale	25	31	41	50	65	160,0
oat	141	143	94	128	164	16,3
buckwheat	21	15	14	26	31	47,6
mixed cereals	19	33	35	47	50	163,2
grain maize	32	24	47	72	79	146,9
other cereals	0,2	0,1	1	1	2	10,0 k
dried pulses grain	62	86	70	78	80	29,3

Table 2.8. Average	harvest of grain	crops in 2008-	-2012.	thousand tonnes
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Source: Data of Statistics Lithuania.

The harvest of cereals in 2012, compared to 2011, increased by 44.4%. Harvest increase resulted from the higher yield and the larger area under crops.

In 2012 the harvest of winter crops was by 46.3% higher if compared to 2008. The yield of spring cereals was by 23.1% higher.

Grain procurement in Lithuania. In 2012 in Lithuania cereal grains purchased from the farmers was by 86% more than in 2011 (Table 2.9). Purchase of Class 2 food wheat and triticale increased most substantially. Part of the purchased grain was exported by the purchasers.

Grain procurement prices in 2012 were higher than in the period of 2008–2011. Their level was conditioned by the global prices which due to the grain shortage in the USA, Australia, Russia, the EU and other grain exporting countries were increased by 20–30% for the 2012–2013 harvest. In 2012 the purchase prices for triticale and wheat got increased most considerably, and those for oats and buckwheat went on reducing.

Kind of grain	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Total	2398	2544	1916	1661	3092	28,9
wheat	1445	1717	1366	1195	2356	63,0
food wheat, class I	211	635	613	497	686	225,1
food wheat, class II	710	700	256	195	852	20,0
feed wheat	524	382	497	503	818	56,1
rye	114	115	51	25	79	-30,7
food rye, class I	65	78	17	12	35	-46,2
barley	591	439	372	320	337	-43,0
food barley	43	34	32	40	51	18,6
malt barley	78	60	68	56	72	-7,7
feed barley	470	345	272	224	214	-54,5
oats	28	16	12	15	20	-28,6
grikiai / buckwheat	3	3	2	9	15	400,0
kvietrugiai / triticale	184	252	110	73	249	35,3
kukurūzai / maize	9	2	3	11	26	188,9

Table 2.9. Purchase of grains in 2008–2012, thousand tonnes

Sources: Data of Statistics Lithuania and Agricultural and Food Market Information System (2012).

Grain procurement prices, compared to the beginning of the year, changed several times – from the new harvest in 2012 and at the end of the year.

Kind of grain	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Total	561	362	517	657	709	26,4
wheat	595	396	544	671	719	20,8
food wheat	649	400	559	711	733	12,9
rye	480	248	391	605	606	26,3
barley	518	317	446	617	691	33,4
malt barley	659	394	503	718	780	18,4
feed barley	508	305	433	597	674	32,7
oats	446	204	307	549	555	24,4
buckwheat	663	564	1753	1205	1026	54,8
triticale	440	269	471	557	648	47,3
maize	860	403	624	624	707	-17,8

Table 2.10. Average	purchase	price of	grains in	2008-	2012, LT	L per tonne
			o		- ,	

Sources: Data of Statistics Lithuania and Agricultural and Food Market Information System (2012).

Processing. In 2012 the national grain processing companies produced by 30% more groats whereas production of flour (1.9%), fresh bread (3.8%) and pastry and bakery confectionery (4.3%) was lower (Table 2.11). The decreasing purchasing power of the population during crisis had a direct impact on the changes in trading these products within the reference period (2009–2011).

Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Flour	249,2	269,0	296,9	334,1	327,9	31,6
Cereal groats	23,5	22,4	19,4	14,2	18,5	-21,3
Fresh bread	142,0	134,3	134,1	126,1	121,3	-14,6
rye bread	60,9	59,8	59,9	59,0	55,8	-9,4
other bread	81,1	74,5	74,2	67,1	65,5	-19,2
Pastry and confectionery	26,9	24,1	23,5	23,4	22,4	-16,7

Table 2.11. Production of grain products in 2008–2012, thousand tonnes

Source: Data of Statistics Lithuania.

Average wholesale prices of the largest part of grain products in 2012, compared to 2011, have dropped (flour, wheat, buckwheat groats), whereas wholesale prices for semolina, bread and confectionery were increasing (Table 2.12).

Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Wheat flour	1162	937	970	1186	1101	-5,2
Rye flour	1014	698	704	1014	966	-4,7
Wheat groats	1114	741	868	1282	1115	0
Semolina	1170	813	850	1319	1356	15,9
Buckwheat groats	2194	1775	2786	4178	2730	24,4
Fresh bread	3076	2992	2739	3055	3161	2,8
rye bread	2881	2886	2658	3010	3123	8,4
other bread	3230	3082	2806	3094	3193	-1,1
Confectionery	8790	8300	7660	8164	8864	0,8

Table 2.12. Average wholesale prices of grain products in 2008–2012, LTL per tonne

Source: Data of Statistics Lithuania.

Changes in retail prices varied. Over the reference period, prices for buckwheat and bread increased mostly, and the lowest price increase was for flour and pasta (Table 2.13).

Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Wheat flour, best quality	2,38	2,37	2,37	2,60	2,47	3,8
Rye bread	4,16	4,41	4,39	4,89	5,02	20,7
White bread made from wheat flour	4,80	5,03	5,03	5,47	5,45	13,5
Buckwheat groats	n. d.	3,47	5,26	9,04	6,37	83,6*
Pasta	n. d.	2,30	2,35	2,43	2,43	6,5*

Table 2.13. Average retail prices of grain products in 2008–2012, LTL per tonne

* Compared to 2009.

Source Data of Statistics Lithuania.

Balance. Grain harvest yielded during the period of 2008–2012 was sufficient to satisfy national needs (Table 2.14). This is evidenced by the self-sufficiency index which in 2012 was highest within the reference period. The major proportion of grain for domestic uses was consumed in livestock-breeding. In 2008–2012, 58% of grain produced on Lithuanian farms was used for feedstuffs.

8						
Indicators	2008	2009	2010	2011	2012*	Change 2012, compared to 2008, %
Beginning stocks	1083,7	1300,0	1272,5	866,1	1255,1	15,8
Production	3484,2	3892,3	2867,2	3303,9	4736,5	35,9
Import	415,3	199,3	294,2	408,9	539,1	29,8
Total resources	4983,2	5391,6	4433,9	4478,9	6530,7	31,1
Export	1839,8	2067,6	1708,6	1475,0	2411,8	31,1
Domestic uses	1843,4	2051,5	1859,2	1848,8	1903,0	3,2
seeds	214,0	230,6	221,4	229,2	220,0	2,8
animal fodder	1019,4	1194,4	980,8	1036,1	1100,0	7,9
losses	52,2	57,1	52,8	51,5	53,0	1,5
industrial uses	175,7	178,8	242,7	279,2	200,0	13,8
human consumption	382,1	390,6	361,5	352,8	330,0	-13,6
Per capita consumption, kg	114	117	110	109	110	-3,5
Ending stocks	1300,0	1272,5	866,1	1255,1	2215,9	70,5
Self-sufficiency level, %	189	190	154	179	249	59,9**

Table 2.14. Balances of grain and grain products in 2008–2012, thousand tonnes

* LIAE calculations. ** percentage point.

Source: Agriculture in Lithuania 2011 Vilnius: 2011. Department of Statistics 2012. ISSN-2029-3658.

Consumption of grain and grain products was almost steady in Lithuania – during 2008-2012 the domestic uses increased by 3.2%. Their per capita consumption in 2012, in comparison with 2008, was by 3.5% lower.

Foreign trade in grain and grain products. With a record harvest yielded, it was expected to export the surplus until the end of the year, but this has not happened. Farmers while anticipating the higher export prices stored their surplus grain in granaries and were in no hurry to sell them. In 2012, compared to 2011, export of cereal grains increased by 36.3%, and import dropped by 12.1% (Table 2.15). Within the mentioned period their export to the EU countries increased by 47.2%, and in 2012 constituted 40.1% of the total export of cereal grains. Exports of cereal grains to third countries in 2012, as compared to 2010, were up by almost 3 times. Exports of the products of the milling industry within the reference period dropped by 2.4%, and imports by 10.8%.

Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Cereal grains	1608,3	1778,8	1379,5	1094,9	2009,8	25,0
of which wheat	1129,9	1275,6	1123,1	807,7	1672,1	48,0
rye	60,1	118,2	20,8	26,6	80,5	33,9
barley	316,1	189,0	154,0	204,3	100,1	-68,3
Milling products	141,9	147,5	159,8	185,1	190,2	34,0
of which wheat flour	6,8	11,3	15,3	9,8	11,1	63,2
rye flour	1,1	0,7	0,7	1,7	4,2	281,8
cereal groats	3,1	4,2	3,9	2,8	2,7	-12,9

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1 able 2.15. EX	norts of cerea	orains and	grain	products in	2008-2012	, thousand tonnes
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Source: Data of Statistics Lithuania.

In 2012 the largest proportion of grain (wheat) was sold to Iran (39%) and Saudi Arabia (14%). Exports of rye were highest to Poland (38.1%) and Germany (25.0%), and barley to Latvia (59.4%). Most of wheat flour was sold to Latvia (48.5%), and cereal groats also to Latvia (57.8%).

Imports of cereal grains in 2012 were by 5.5 lower than exports (Table 2.16). The major part of cereals was imported from Latvia, Russia and Ukraine.

Products	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Cereal grains	331,1	92,3	172,7	275,4	359,4	8,5
of which wheat	115,4	39,5	95,3	64,1	160,4	39,0
rye	2,8	5,4	23,9	41,3	64,5	23*
barley	37,6	6,0	8,8	68,1	34,5	-8,2
Milling products	42,0	48,9	50,0	64,8	53,7	27,9
of which wheat flour	5,4	16,4	26,2	28,4	21,9	4*
rye flour	17,2	13,3	3,2	4,9	10,3	-40,1
cereal groats	1,5	2,7	6,9	9,8	3,4	126,7

Table 2.16. Imports of cereal grains and grain products in 2008–2012, thousand tonnes

* Times.

Grain farming in Lithuania holds strong positions. This sector, however, generates the most minimum value added in agriculture – more than a half of grain is exported to other countries as a raw material for processing. As an alternative could be the development of pig-breeding in Lithuania, where value added created per tonne of grain could be 2-3 times higher.

3.2. Milk

The Lithuanian dairy sector after the global economic crisis of 2008–2009 started reviving in 2011–2012, though at a slow pace. Milk procurement in 2012 was still by 1.1% lower than in 2008. Small dairy farms were further rapidly declining as their elderly owners were not able to upkeep their farms, while others could not survive because of low procurement prices they were paid. Larger dairy farms, though receiving a higher price, did not have too much stimulus for their growth to compensate the decline of small dairy farms. The average annual milk procurement price in Lithuania in 2008–2009 was the lowest in the EU countries, and since 2010 it has become higher only as compared to the price paid in Romania. Therefore, raw milk was in shortage in Lithuania. Milk processing companies attempted to solve the problem of raw milk shortage by importing still higher volumes of milk from neighbouring countries. Nevertheless, they did not raise the milk procurement prices in Lithuania to the level to encourage the expansion of milk production.

Milk production and procurement. In 2012 milk yield amounted to 1820 thou. t, of which 75% was purchased for processing (Table 2.17). In comparison with 2011, milk production in 2012 was up by 1.9%, but, compared to 2008, was down by 3.4%. Milk procurement during 2012 increased by 3.2%, whereas within the five years dropped by 1.1%. The global economic crisis had a big impact on milk production and procurement volumes: in 2009, as compared to 2008, milk production slumped by 5% and procurement by 7.4%. Until 2012 neither milk production nor milk procurement has attained the pre-crisis level.

Indicators	2008	2009	2010	2011	2012	2012, compared <i>to</i> 2008, %
Milk production	1883,8	1791,0	1736,5	1786,4	1820,0	97
Milk purchase						
natural fatness	1375,6	1274,2	1278,3	1317,4	1359,9*	99
basic fatness**	1660,8	1534,3	1540,4	1587,6	1638,0	99

Table 2.17. Milk production and purchase in 2008–2012, thousand tonnes

* 4,15 % milk fat, 3,26 % protein.

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

Sources: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN-2029-3658.

Agricultural and Food Market Information System. Milk sector, domestic market. – Agricultural Information and Rural Business Centre. [interactive], [reviewed on 22 March 2013]. Access through Internet http://www.vic.lt/?mid=348&id=11599>.

Nearly all the milk yield is received by milking cows. Goat milk in 2011 just accounted for 0.2% and since 2008 has not almost changed by physical weight and in relative terms.

Over 80% of milk is produced in farmers' farms and family farms, though the relative weight of agricultural companies and enterprises has been increasing at a slow pace. In 2008 the latter produced 15.4% of milk and in 2011 - 16.1%. In fact, compared to 2010, the share of agricultural companies and enterprises decreased by 0.1 percentage point.

The balance of trade in raw milk in Lithuania is negative, and the gap between imports and exports is still more increasing, as the milk processing companies are lacking raw milk purchased in Lithuania. In 2008 raw milk imports excelled exports by 189.9 thou. t, and in 2012 by 301.8 thou. t. Imports of raw milk in 2012 reached 380.6 thou. t and compared to 2011 increased by 29%. The key import countries remained traditional – Latvia (69% of the imported milk) and Estonia (31%). The average price for the imported raw milk in 2012 was 1055 LTL/t. During 2012 raw milk exports amounted to 78.8 thou. t. In comparison with 2011 raw milk exports increased by 3.3%, its export geography having changed as well. In 2008 raw milk exports to Poland stood at 71%, to Latvia 29%, and in 2012, 90% was exported to Poland, 9% to Latvia, 1% to Estonia, and an insignificant part to the Russian Federation. The average exported raw milk price was 1111 LTL/t. Compared to 2008, the amount of raw milk exported in 2012 was by 21.5 times higher.

Since 2008 the purchased milk quality and composition indicators have changed slightly. In 2008 - 96.4% and in 2012 - 96.3% of the total purchased milk satisfied the EU veterinary and hygiene requirements. The average fatness of the purchased milk in 2008 and in 2012 was 4.15\%, and protein content was 3.28\% in 2008 and 3.26\% in 2012.

As a result of the global economic crisis, milk procurement prices stopped rising at the second half of 2008. In 2009, compared to 2008, the purchase price for milk of basic indicators reduced by 28%. Later it began to go up and in 2011 reached 818 LTL/t, whereas in 2012 decreased again by 8.9%. In 2012, if compared to 2008, the average annual purchase price of milk of basic indicators increased just by 4.3% – to 745 LTL/t (Fig. 2.17).





Sources: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN-2029-3658. Agricultural and Food Market Information System. Milk sector, domestic market. – Agricultural Information and Rural Business Centre. [interactive], [reviewed on 22 March 2013]. Access through Internet <http://www.vic.lt/?mid=348&id=11599>. Fluctuations of milk purchase prices were mostly affected by the global economic crisis and the relevant changes in the global demand for milk products with the respectively increased or decreased export prices for milk products. Similar tendencies of variation in milk purchase prices were alike as in other EU countries, whereas in Lithuania the range of fluctuations 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 since the years of Lithuania's accession to the EU, leaving Romania behind. In 2012 the situation did not change (Fig. 2.18), even though in separate winter months milk prices in Lithuania were higher than in Latvia or Poland. One of the main reasons of the average low milk purchase price in Lithuania is the prevalence of small milk producers who are paid a much lower price than large-scale milk producers and the apparently lower price paid during the summer season due to the increased milk volumes.

The average Lithuanian dairy farm is among the smallest in the EU countries. In 2010 the number of milking cows per farm was 4.1, making 30% of the average in the EU. Smaller average dairy farms were only in Romania (1.8 cows) and in Bulgaria (3.9 cows). Milk production farms, however, are becoming larger in Lithuania. In 2012, as compared to 2008, the average dairy farm increased by 29% to 4.5 cows.



Fig. 2.18. Milk (natural fatness) purchase price in Lithuania and selected other EU countries in 2012, LTL per tonne

Sources: Agriculture – EUROSTAT [interactive], [reviewed on 24 April 2013].Access through Internet: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tag00070&plugin=1>; EU milk prices – GD Agri. DairyCo [interactive], [reviewed on 24 April 2013]. Access through Internet: <http://www.dairyco.org.uk/resources-library/market-information/milk-prices-contracts/eu-milk-prices-dg-agri/>.

The process of enlargement of an average dairy farm takes place to a great extent alongside with the decline of small farms. From 2008 to the end of 2012 the number of farmers keeping 1–2 cows reduced by 31673, or 38%, those keeping 3–9 cows decreased by 24%, and keeping 10–19 cows by 20%. Simultaneously, the number of farms with 30 and more cows increased by 53, or by 3.8%, and the number of cows kept here by 4.1% (Table 2.18). In Lithuania small-scale farms are still prevalent. Just 7.3% of the national milk producers are keeping 10 and more cows.

Due to the dominating position of small farms in the country, the average productivity per cow is considerably lower than the average in the EU. In 2011 it reached 5026 kg of milk, or 75% of the EU average. The productivity of cows, however, during the reference period has been increasing: in 2012, as compared to 2008, the milk yield per cow increased by 9.4%. The average milk yield of cows under control during the control period of 2011–2012 reached 6703 kg – by 4.9% more than in

2010–2011 and by 13.6% more than in 2007–2008. During the control period of 2011–2012, 43% of all kept cows were under control in the country.

		2008		2012
Number of cows per farm	number of farms	number of cows, thou.	number of farms	number of cows, thou.
1–2	82359	101,6	50686	63,7
3–9	19536	89,3	14752	68,2
10–19	3420	45,2	2732	37,0
20–29	1037	24,6	971	23,1
30–49	769	28,6	782	29,4
50–99	410	27,3	445	30,2
>=100	226	63,5	231	64,7
Total	107757	380,2	70599	316,4
Average		3,5		4,5

 Table 2.18. Dairy farms by number of cows in 2008 and 2012 (at the end of the year)

Sources: Agricultural Information and Rural Business Centre [interactive], [reviewed on 24 April 2013] Access through Internet: http://www.vic.lt/uploads/file/06_ukiu130101_pagal_gyvas_karvs11.pdf;

<http://www.vic.lt/uploads/file/16_06_ukiu090101_pagal_gyvas_karvs11.pdf>.

From 2008 to the end of 2012 the number of dairy cows decreased by 83.7 thousand (Fig. 2.19). Their number was consistently decreasing throughout the whole reference period. In 2012, as compared to 2011, the number of cows reduced by 11%. This was the most significant decrease in the number of cows within the reference period. Within the same period the milk yield per cow went on increasing. In 2012 it was by 9.4% higher than in 2008.



Fig. 2.19. Number of cows and milk yield per cow in 2008–2012 (at the end of the year) *Source: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN 2029-3658.*
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 in 2012 raised about 79% of the total income from sales in the milk processing sector, by 6 percentage points more than in 2011. 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 output.

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. 13 milk processing companies and their subsidiaries have licences for exporting their production to Russia, and 9 - to Belarus.

After the boost in 2007, the notably decreased global demand and prices for milk products in 2008 and 2009 conditioned the reduction in the sales and export volumes of the milk processing companies. In 2010–2012, with the global economies reviving after the global crisis, the demand for dairy products was up again (Table 2.19). In 2012, as compared to 2011, sales of dairy products (including ice-cream, lactose and casein) increased by 2.8%, of which export by 14%.

Indicators	2008	2009	2010	2011	2012
Number of milk processing enterprises & subsidiaries	33	32	31	31	31
Sales of dairy products, LTL mill.	2294,8	2043,3	2169,0	2736,6	2812,2
share in total production of foodstuffs, %	28	28	28	30	28
Export income, LTL mill.	1340,6	1154,4	1457,7	1697,9	1936,6
share in total income from sales, %	58	56	67	62	69

Table 2.19. Key indicators of the milk processing industry in 2008–2012

Sources: Production of Commodities 2008–2012. Vilnius: Department of Statistics. ISSN 1648-5777;

Data of the Department of Statistics [interactive], [reviewed on 6 May 2013]. Access through Internet:

<http://osp.stat.gov.lt/statistiniu-rodikliu-analize?id=2644&status=A>;

State Food and Veterinary Service [interactive], [reviewed on 24 April 2013].Access through Internet: http://vetltl.vet.lt/vepras/>.

The key area in the specialization of the dairy industry in Lithuania is the production of cheeses. These products also dominate in the structure of exports. The most substantial part of dairy products was manufactured in 2008, when the global demand for dairy products was highest, and the domestic market was not much affected by crisis and was not so shrunk due to emigration. In 2012, in comparison with 2008, the production of curd (21%), butter and other milk fats (18%) increased most of all. However, the production of quite a large part of dairy products has not reached the production volumes of the year 2008 (Table 2.20).

Production of Agricultural and Food Products and Sales in the Domestic and Foreign Markets

Products	2008	2009	2010	2011	2012	2012, compared to 2008, %
Drinking milk	105,0	99,5	94,0	102,6	100,3	96
Sour milk, kefir	35,9	34,8	35,7	33,9	35,6	99
Yoghurt	15,3	14,4	14,4	14,6	16,6	108
Sour cream & mixes	27,9	28,6	27,8	28,3	29,1	104
Curd	23,3	23,5	24,4	26,5	28,2	121
Butter and other milk fats	9,0	12,0	8,5	8,7	10,6	118
Fresh cheese	30,7	34,8	24,0	24,8	33,7	110
Unprocessed cheese	56,3	37,6	43,9	46,8	49,3	88
Dried milk and whey products	40,0	41,4	36,6	39,2	39,0	98
Ice cream, mill. 1	25,1	21,1	24,5	18,1	23,8	95
Canned dairy products	29,8	21,0	25,0	21,5	22,8	77

Table 2.20. Production of main dairy products in 2008–2012, thousand tonnes

Sources: Production of Commodities 2008–2012. Vilnius: Department of Statistics. ISSN 1648-5777.

Domestic market in dairy products. Per capita consumption of milk and dairy products in milk equivalent in Lithuania during the period of 2008–2011 increased by 5.6%. Consumption of certain dairy products, excluding products manufactured on the farms and consumed for their own needs and direct sales in 2012, as compared to 2008, increased by 20–138%, even though consumption of drinking milk by the population reduced by 13% (Table 2.21).Within the said period prices for dairy products increased, especially of products from milk fats, whereas wages in 2012 were just by 0.6% higher than in 2008. The growth in the consumption in 2012 was due to the updated number of the population according to the 2011 census of population which turned out to be lower than that which was calculated in the previous years by using statistical methods.

Products	2008	2009	2010	2011	2012	2012, compared t <i>o</i> 2008, %
Per capita consumption	of milk	and dai	ry produ	icts, kg		
Milk and dairy products (in milk equivalent)	268	289	262	283	n.d.	
Cheese and curd*	14,3	13,6	14,1	14,8	17,4	122
Butter*	1,3	2,2	1,9	2,0	3,1	238
Sour milk products*	22,5	20,7	23,5	24,3	27,0	120
Drinking milk*	39,1	30,2	30,7	30,8	34,2	87
Purchasing power of averag	e net wa	ages and	l salaries	s per mo	onth	
Butter, kg	87	93	78	81	71	82
Sour cream, 20–30 % fat content, kg	206	317	276	253	177	86
Curd, 5–9% fat content, kg	131	153	148	130	134	102
Milk, 2,5% fat content, l	703	778	773	658	662	94

 Table 2.21. Changes in consumption of milk and dairy products and factors influencing consumption in 2008–2012

	Products	2008	2009	2010	2011	2012	2012, compared t <i>o</i> 2008, %
	Average retail price of	milk and	l dairy p	products	, Lt/kg		
]	Butter	19,04	17,26	19,91	19,62	23,35	123
]	Milk, 2,5% fat content, LTL/l	2,35	2,06	2,01	2,42	2,51	107
	Sour cream, 20–30 % fat content	8,01	5,35	5,63	6,29	9,40	117
(Curd, 5–9% fat content	12,59	10,50	10,53	12,25	12,44	99

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

Sources: Production of Commodities 2008–2012. Vilnius: Department of Statistics. ISSN 1648-5777;

Economic and Social Development in Lithuania, Latvia and Estonia 2008–2012. Vilnius: Department of Statistics. ISSN 2029-5936;

Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN 2029-3658;

Key Indicators of Economic and Social Development: Department of Statistics data [interactive], [reviewed on 7 May 2013]. Access through Internet http://web.stat.gov.lt/lt/pages/view/?id=2621; Department of Statistics data.

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 2008, the imported dairy products accounted for 16% of the total dairy products sold on the Lithuanian market (excluding raw milk imports), and in 2012 - 18%, even though in 2009 their amount dropped to 14%. Cheese and fermented and sour dairy products, ice-cream are dominating in the structure of imports of dairy products. In 2012 the amount of imported dairy products (including ice-cream, lactose and casein, with raw milk excluded) totalled LTL 290.8 million, or by 45% more than in 2008. The total market of dairy products constituted LTL 1.6 billion, and also including products with vegetable fats – LTL 1.7 billion (by 23% more than in 2008).

Wholesale prices for dairy products sold by Lithuanian producers on the domestic market in December 2012 decreased by 2.4% as compared to December 2007. Wholesale prices within the reference period were highest in January 2008, but they started decreasing already in the next month and reached the lowest level in September 2009 – were by 21% lower than in December 2007. From September 2009 wholesale prices for dairy products on the Lithuanian market went on increasing or stood at the level reached and began decreasing slightly only after April 2012.

Export of dairy products. Balance of the Lithuanian foreign trade in milk and dairy products in 2008–2012 was positive: in 2008 exports surpassed imports by LTL 934.1 thousand, and in 2012 – by LTL 1244.6 thousand. The growth rate of imports, however, excelled exports: within the period of 2008–2012 imports increased by 70%, exports by 44%, though in 2012, compared to 2011, imports were up by 12%, and exports by 14%.

In 2008–2009, during economic crisis, exports of milk and dairy products due to the fallen prices and the volume were reducing, and from the year 2010 went on increasing. In 2012 exports of dairy products (including ice-cream, lactose and casein) amounted to LTL 1936.6 million. Cheese and curd accounted for about a half of the total exports. In 2012, 14% of exports of dairy products consisted of not concentrated cream, 11% – milk powder. A similar situation was also observed in the previous reference years. In 2012, compared to 2008, export of almost all dairy products was increasing; most of all fermented and acidified milk products and milk sugar (by 3.4 times each). Only exports of condensed milk and casein decreased, the structure of exported cheese got changed (Table 2.22).

CN code	Products	2008	2009	2010	2011	2012	2012, compared to 2008, %
0401	Milk & cream, not concentrated	180,2	177,5	291,3	416,2	360,8	200
0402	Milk & cream, concentrated	189,1	163,4	256,2	208,6	289,3	153
040210	Skimmed milk powder	83,0	66,5	151,2	136,2	202,0	243
040221	Whole milk powder	23,2	30,7	28,9	10,5	24,9	107
040291	Condensed milk without sugar	34,1	25,1	42,4	22,4	21,5	63
040299	Condensed milk with sugar	47,5	40,4	33,4	39,3	40,7	86
0403	Fermented or acidified milk & cream	15,7	15,2	16,6	36,8	52,7	336
040310	Yogurt	2,2	2,3	2,7	13,2	24,7	112
0404	Whey & products consisting of natural milk constituents	63,7	61,0	83,2	95,2	115,1	181
0405	Butter & other fats & oils derived from milk, dairy spreads	52,2	39,8	33,5	36,9	58,7	112
0406	Curd & cheese	782,8	647,9	716,0	813,4	951,4	122
040610	Fresh cheese & curd	269,7	252,9	293,7	333,1	433,9	161
040690	Other cheese	509,2	391,5	416,6	467,9	501,9	99
210500	Ice cream	31,5	34,4	42,3	46,3	54,7	174
350110	Casein	9,0	3,2	0,03	0,3	0,0	
170211-19	Milk sugar	16,0	12,0	18,1	44,2	53,8	336

Table 2.22. Exports of dairy products in 2008–2012, LTL million

Source: Data of Statistics Lithuania..

The main countries for exports of dairy products were the EU countries and Russia. In 2012 most of the dairy products were exported to the EU countries -57% of the total export, to Russia -30% (Fig. 2.20). In 2008 exports accounted for 60% and 34%, correspondingly. The share of exports to Russia is so high since here an opportunity exists to sell Lithuanian cheeses under their own trademarks and for a higher price than selling them in the EU countries as industrial cheeses. Cheese comprised the major portion of dairy products exported to Russia (more than 80%).



Fig. 2.20. Structure of the export of dairy products by country group in 2012 *Source: Data of Statistics Lithuania.*

Prices for exported dairy products in December 2012, as compared to December 2007, increased by 16%. Price variation tendencies during the reference period were similar to those on the domestic market; just the price jumps or falls were much bigger. In 2010 dairy product export prices were increasing especially rapidly: in December 2010, as compared to December 2009, they increased by 26%. Another leap of export prices started at the second half of 2012. In December 2012, as compared to July, they increased by 16%.

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

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

Quota year	ota for processing	Quota for direct consumption
2007–2008	85	54
2008–2009	84	56
2009–2010	76	61
2010–2011	77	58
2011–2012	79	54

Table 2.23. Fulfilment of national milk production quota in 2007–2012, per cent

Sources: National Paying Agency [interactive], [reviewed on 8 May2013]. Access through Internet: http://www.nma.lt/index.php/parama/kvotos/pieno-kvotos/statistika/1498.

National direct payments for the quota milk sold in 2008 amounted to LTL 119.7 million, in 2009 to LTL 118.8 million. In 2010 LTL 117.4 million of direct payments for the sold quota milk was paid, and EU payments to milk producers who suffered from the dairy sector crisis amounted to LTL 10.6 million. In 2011 LTL 92.3 million of decoupled direct national payments for the quota milk was allocated and paid to milk producers, and in 2012 – LTL 93.3 million.

Of the Single Market organizational measures in the period of 2008–2012 the major support for milk and dairy products was used in the crisis affected year 2009, since the said measures are intended to support the milk sector after the emergence of difficulties. Here export refund payments and intervention purchases have been used most widely. Even though since July 2007 the EU refund payments for export to third countries have been withdrawn, in 2008 the milk processing companies still received LTL 3.8 million of compensations for the products exported in the previous years. In 2009 export compensations were resumed and dairy product exporters were paid LTL 17.55 million of export compensations, of which to Lithuanian companies – LTL 13.95 million. In 2010 just LTL 3.4 million of export compensations was paid out, as due to the increased prices compensations were withdrawn again. In 2011, LTL 0.05 million of export compensations was paid, and in 2012 no compensations were paid.

In 2009 the milk processing companies for the first time took advantage of the measure for butter and skimmed milk powder intervention purchases as prices for dairy products on the foreign market have dropped considerably. Until then intervention purchases have not been performed, since none of milk processing companies was willing to sell their production to intervention warehouses. Purchases to intervention warehouses consisted of 1.84 thou. t of butter and 10.34 thou. t of skimmed milk powder. In 2010 - 12.18 thou. t of intervention dairy products, and in 2011 - 6.0 thou. t.

In 2009 support for private butter storage was also used. Private storage of 21 t of butter was granted support.

Economic indicators. Over the period of 2008–2011 milk production at specialized dairy farms was profitable; however, if not for the subsidies, losses would have been suffered in separate years. According to the FADN data of the respondent farms, the net profit at farmers' farms, the main revenue thereof was income derived from milk production and subsidies per LTL 1 of sales income, totaled 44.2% in 2008 (subsidies exclusive – 9.2% of losses). In 2011 the profitability dropped to 31.4%, subsidies inclusive, though without subsidies it was still positive – 2.5%.

Milk production at agricultural companies and enterprises was profitable, except for the year 2009, when losses suffered amounted to 0.4% (Fig. 2.21). Milk production in agricultural companies and enterprises is among the more profitable branches of the economy. The gap from the average profitability of agricultural production sales within the reference period increased from 7.4 percentage points in 2008 to 14.7 percentage points in 2011.



Fig. 2.21. Profitability (without subsidies) of milk and total agricultural output in agricultural companies and enterprises in 2008–2011, per cent

Sources: Official statistical forms of agricultural companies and other agricultural enterprises 2008–2011.

Fluctuations in milk purchase prices had the major impact on the profitability of milk production in 2008–2011. In 2009 after the apparent drop in the purchase price the milk production has become unprofitable. The average cost price of sold milk production in agricultural companies and enterprises in 2008 was 727 LTL/t, if calculated by reckonable weight, and in 2011 increased to 743 LTL/t, i.e. by 2.2%. The cost price of natural milk in 2011, compared to 2008, due to the changed milk composition indicators, increased somewhat more – by 2.8%.

The activities of the four major groups of Lithuanian milk processing enterprises, enrolled in the lists of the Vilnius Stock Exchange, only in 2008 suffered 1.9% of losses (Table 2.24). From 2009 to 2012 profit has been gained again. In 2012 the profitability reached 3.9%.

Table 2.24. Net profitability of major dairy enterprises in 2008–2012, per cent

Indicator	2008	2009	2010	2011	2012
Net profitability	-1,9	2,6	4,0	3,1	3,9

Source: NASDAQ OMX [interactive], [reviewed on 4 April 2013].Access through Internet: http://www.nasdagomxbaltic.com/market/?pg=reports

In 2008 the loss rate of Lithuanian milk processing enterprises exporting more than a half of their products was conditioned by the discontinued export refund payments and the fall of the global milk product prices. In 2009 export refund payments were resumed again, and in 2010–2011 the rise in profitability was influenced by the increased global prices for dairy products.

3.3. Meat

The livestock-breeding sector in Lithuania is an important and priority branch of agriculture. The favourable natural conditions, established cattle-breeding traditions and the accumulated experience are favourable for the development of this sector in the country.

Products of animal origin are an important part of the balanced diet. They contain plenty of nutrients, vitamins, and minerals, necessary for human organism. In 2011 the annual per capita consumption of meat and meat products in Lithuania amounted to 70 kg (EU-27 average – 88 kg), i.e. by 7% less compared to the year 2007.

The number of animals has been decreasing with every year, though sourcing their products remains rather high. Exclusion is the pig-breeding sector, where the national consumer needs are not satisfied and about LTL 0.5 billion is spent for pork imports.

The livestock-breeding sector is also of importance for the food industry. The technical potential of meat, milk and other processing enterprises give all the opportunities to use to a maximum the resources of the livestock-breeding sector and create economic preconditions for the development of this sector.

One of the most important objectives for the 2014–2020 Lithuanian Rural Development Programme should be the creation and preservation of the competitive livestock-breeding farm. It is expedient to develop the livestock-breeding in those areas where the land is not good for plant-growing.

Livestock-breeding. During the period of 2008–2012 the number of cattle, dairy cows, pigs and poultry went on decreasing, whereas that of sheep increased (Table 2.25). Compared to 2004, the number of pigs and cows got reduced by one fourth.

Kind of animals	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Cattle	770,9	759,4	748,0	752,4	729,2	-5,4
of which dairy cows	394,7	374,6	359,8	349,5	331,0	-16,1
Pigs	897,1	928,2	929,4	790,3	807,5	-10,0
Poultry	9107,5	9308,7	9466,3	8921,2	9085,6	1,8
Sheep	47,5	52,5	58,5	60,4	82,8	74,3

Table 2.25. Number of livestock and poultry in 2008–2012 (at the end of the year), thousand

Source: Agriculture in Lithuania 2010. Vilnius: Department of Statistics, 2012. ISSN-2029-3658.

Cattle. According to the data of the AIRBC, as at 1 January 2013, cattle was raised in 80.7 thousand farms, i.e. almost by half less than five years ago (Table 2.26). The number of small-scale farms with up to 30 head of cattle is on the decrease. The average size of a farm is still very small. On the average, 8.5 head of cattle were raised per farm (EU – about 37).

Number of cattle per	20	07	20	12
farm, heads	Number of farms	number of cattle	number of farms	number of cattle
1–2	85,2	115,4	42,8	59,6
3–5	29,5	109,0	18,3	68,0
6–10	12,7	95,0	9,1	68,9
11–20	6,7	96,2	5,1	73,5
21-30	2,0	49,4	1,8	44,9
31–50	1,5	58,9	1,6	61,4
51-100	1,0	68,3	1,2	83,4
101–150	0,2	28,9	0,4	44,3
≥151	0,3	150,2	0,4	180,1
Total	139,2	771,3	80,7	684,0
Average		5,5		8,5

Table 2.26. Farms by number of cattle in 2007 and 2012 (at the end of the year), thousand

Source: Data of Agricultural and Food Market Information System

Dairy cows accounted for 45% of the cattle herd. The largest number consisted of the Lithuanian Black-and-White (77%) and the Lithuanian Red (22%) cows. Beef and cross-breed cattle account for 7%.

In Lithuania within the period of 2008–2012 the number of farms where up to 10 head of cattle are kept decreased by almost a half, whereas the number of farms raising more than 50 head increased by one third. The average size per farm is 8.5 head of cattle – by 1.5 times higher than at the end of 2007.

Cattle production is dependent on the milk production tendencies. The number of cows is reducing slower than the volumes of beef meat consumption. Since the number of cattle for slaughter by two times exceeds the amount of meat needed for the domestic market, an increase in animal supply has a negative influence on the purchase prices. Export of live animals is an alternative for increasing prices on cattle. Therefore export of calves continuing for more than a year was also important in 2012. In 2011, 35% of born calves were exported. It is important to note that meat of dairy cattle is not so much valued as that of meat cattle.

Raising beef cattle is gaining popularity. In 2012, in Lithuania, 23.8 thousand of cattle breeders raised 103.6 thousand head of cattle, including 66.1 thousand cows and heifers. Of pedigree cattle most popular are Limousine, Charolais and Aubrac breeds. Cross-bred cattle breeds, however, are most numerous. On the average, five heads of cattle were bred per farm engaged in beef cattle-breeding.

Pigs. According to the data of the Department of Statistics, by the end of 2012 in Lithuania 807.5 thousand of pigs were raised, of which pedigree breeding pigs accounted for 63.5 thousand (Table 2.27). In 2012 pig breeders raised about 1.2 million of pigs, of which number 270 thousand were exported and 915 thousand were slaughtered. Within the period of 2008–2012, the number of pigs decreased by 12.5%. Pig-breeding is an important branch of agriculture, since pork consumption in the country is highest. However, the pig-breeding decline that has started since 1993 is continuing – this is one of few agricultural sectors, not being able to provide pork supplies to the population. To satisfy the needs, the pork production volumes should be increased by more than twice. The major pig breeders are agricultural companies and enterprises in Panevėžys, Kelmė, Jurbarkas and Radviliškis districts.

Group of pigs	2007	2012	Change 2012, compared to 2007, %
Pigs, total	923,2	807,5	-12,5
piglets up to 20 kg	191,5	140,4	-26,7
piglets 20–50 kg	205,3	220,7	7,5
fattening pigs 50-80 kg	250,6	219,0	-12,6
fattening pigs 80–110 kg	122,1	113,9	-6,7
fattening pigs over 110 kg	70,7	49,0	-30,7
pedigree sows	81,6	63,5	-22,2
boars	1,3	0,9	-30,8

Table 2.27. Number of pigs by group in 2007 and 2012 (at the end of the year),thousand

Source:Data of Statistics Lithuania..

Sheep and goats. According to the data of the AIRBC, by the end of 2012, 83 thousand of sheep (of which 35.2 thousand of ewes) were raised in 6.1 thousand farms and 8.2 thousand of goats (of which 3.3 thousand of breeding goats) in 3.5 thousand farms. Over the period of 2008–2012, the number of sheep increased by 66%, and that of goats by 20% (Table 2.28). The highest growth in the number of sheep and goats occurred in 2012. It is presumed that such an increase was encouraged by a new

procedure of direct payments for grasslands on infertile soils where animals should be raised in order to receive those payments.

Number of sheep or		Sheep farms				Goat farms			
Number of sheep or goats per farm	20	007	20)12	20	07	20	12	
	farms	sheep	farms	sheep	farms	goats	farms	goats	
1–2	1533	2187	1892	2831	2972	3787	2667	3607	
3–5	814	3052	1486	5727	429	1507	648	2305	
6–10	452	3409	1087	8312	75	550	138	996	
11–20	318	4744	824	12049	11	176	31	436	
21–30	157	3903	316	7858	1	24	4	90	
31–50	144	5584	279	10833	2	70	7	267	
51-100	93	6482	140	9870	1	72	0	0	
101-150	26	3161	40	4905	0	0	1	122	
≥151	36	17808	49	20948	3	654	2	411	
Total	3573	50330	6113	83333	3494	6840	3498	8234	
Average		14		14		2		2	

Table 2.28. Farms by number of sheep and goats in 2007 and 2012(at the end of the year)

Source: Data of Agricultural and Food Market Information System.

During 2012 the number of slaughtered sheep amounted to about 27 thousand, that of lambs to 8 thousand and goats to 15 thousand. The major number of sheep and goats are raised by farmers in Anykščiai, Molėtai, Alytus and Ignalina districts.

Poultry. According to the data of the Department of Statistics, by the end of 2012 the number of poultry raised in Lithuania amounted to 9.1 million (Table 2.29), most of all hens. Within 5 years the number of turkeys increased twice. The number of laying hens and geese decreased most of all. Chicken were mostly grown in the poultry farms of Kaišiadorys, Vilnius and Elektrenai districts. Almost 95% of the total poultry was raised by the agricultural companies and enterprises.

Poultry	2007	2012	Change2012, compared to 2007, %
Hens, total	9692,8	8812,9	-9,1
Laying hens	4309,6	3388,2	-21,4
Geese	36,9	16,5	-55,3
Ducks	34,3	42,5	23,9
Turkeys	104,4	205,9	97,2
Other	6,4	7,8	21,9
Total	9874,8	9085,6	-8,0

Table 2.29. Number of poultry in 2007 and 2012, thousand

Source: Data of Statistics Lithuania.

Meat production. By preliminary data, animal and poultry carcass meat produced in 2012 in all farms amounted to 224.1 thou. t. This corresponds to the level of the year 2011 (Fig. 2.22).



* LIAE calculations.



Source: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN 2029-3658.

In 2012 the volume of purchased cattle and poultry amounted to 244.2 thou. t (live weight), accounting for 4.5% more than in 2011.

Slaughterhouses and meat processing enterprises purchased 146.9 thousand of cattle (by 3% less than in 2011) and produced 37.2 thou. t of carcass meat. The average purchase price of cattle was by 7.8% higher than in 2011 (Fig. 2.23), as prices went on increasing in all EU countries because of the increasing prices for fodder.



Fig. 2.23. Amount purchased and average price of cattle in 2008–2012

Source: Data of Statistics Lithuania.

Production of Agricultural and Food Products and Sales in the Domestic and Foreign Markets

At the end of the year the purchase price of Class O2 bulls was by 8% lower than the average price in the EU countries, but higher than in six EU countries.

In 2012 slaughterhouses and meat processing enterprises purchased 47% (554 thousand) of pigs raised in all farms. In 2012 the average purchase price for pigs under carcass classification scale SEUROP was by 13% higher than in 2011 (Fig. 2.24).



Fig. 2.24. Amounts purchased and average prices of pigs in 2008–2012

Source: Data of Statistics Lithuania.

In 2012 the average purchase price of pigs (606 LTL/100 kg of slaughtered meat) was by 13.4% higher than in 2011. The highest price increase was fixed in the second half of the year – by 19% higher than a year ago, though from the beginning of November until the end of the year the purchase price dropped by 10%. An increase in the purchase price of pigs is related to the increased purchase prices of feed.

In 2012 the average purchase prices for Class E pig carcasses in the EU countries were by 11.4% higher than in 2011. The highest purchase prices for Class E pig carcasses were in Malta, Cyprus and Greece, the lowest – in the Netherlands, Ireland, and Denmark. The highest rise in purchase prices was in Cyprus, Poland, and Sweden. Price tendencies in the EU, Poland, and Lithuania were similar (Fig. 2.25).



Source: Data of European Commission.

In 2012, 43.4 million head of poultry were slaughtered (by 7.7% more than in 2011). In 2012, compared to 2011, the average purchase price of poultry meat was by about 2% higher than in 2011 (Fig. 2.26).



Fig. 2.26. Amounts purchased and average prices of poultry in 2008–2012 Source: Data of Statistics Lithuania.

Domestic market. In 2012, 295.7 thou. t of meat and meat products were sold on the domestic market for LTL 2.2 billion (Table 2.30). If compared to the 2008 precrisis period, market volumes decreased by about 10%, and value by 18%. Within 5 years sales of meat and sub-products on the domestic market increased by one-fourth, whereas sales of meat products almost decreased. Sales of imported meat on Lithuania's market did not undergo changes.

	20	008	2012		
Products	quantity, thou t	value, LTL mill.	quantity, thou t	value, LTL mill.	
Meat and sub-products	95,1	706,2	119,2	879,3	
Poultry meat and sub-products	39,7	251,6	54,6	273,3	
Meat products	174,8	1553,6	100,7	870,6	
Imported meat products	20,0	118,3	21,2	133,7	
Total	329,6	2629,7	295,7	2156,9	

Table 2.30. Sales of meat and meat products in the domestic marketin 2008 and 2012

Source: Data of Statistics Lithuania.

By LIAE calculations, in 2012 per capita consumption in Lithuania was 72 kg of meat and meat products (including Category I and II sub-products). As compared to 2011 – by 3 kg more (Table 2.31).

Meat by kind	2008	2009	2010	2011	2012*
Meat, total	81	72	70	69	72
of which:					
beef	6	5	4	4	4
pork	46	42	41	42	43
poultry	24	22	21	21	23
sub-products, category I and II	3	2	3	2	2

Table 2.31. Per capita consumption of meat products in 2008–2012, kilograms

* LIAE calculation.

Source: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN 2029-3658.

Pork is most popular in our country, however, due to insufficient capacities, supply of Lithuanian pork is by half lower than demand. Seeking to satisfy the consumer needs of the population, half of pork is imported. The consumption of beef is decreasing, since its prices are increasing. Poultry consumption is stable.

Foreign trade. In 2012 the balance of Lithuanian foreign trade in meat and animals was positive (Fig. 2.27). Export volumes increased by 12%, and imports by 13%. Poultry meat exports increased by one-fourth. The major part of exports consists calves and pigs – even 21% of the total exports of meat and animals.





In 2012 export of cattle meat amounted to 30 thou. t (Table 2.32). The main importers: Russia (62%), the EU countries – Italy, the Netherlands and Sweden. Pork was mostly purchased in Russia, Latvia and Belarus, and poultry meat in the EU countries – the Netherlands, Latvia, Estonia, and France.

Meat by kind	2008	2009	2010	2011	2012**
Meat, total	74,0	71,4	87,3	110,0	108,0
of which:					
beef	30,9	29,7	31,7	31,1	30,5
pork	13,6	12,9	15,3	23,2	21,0
poultry	19,9	22,4	29,1	35,9	45,0

Table 2.32. Meat* exports by kind in 2008–2012, thousand tonnes

* Meat products converted into meat.

** LIAE calculation.

Sources: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN 2029-3658; Department of Statistics data.

The main part of meat imports consists of pork (Table 2.33). During 2012 almost 80 thou. t of pork was imported, mostly from Poland, Germany and Belgium. In 2012 two thirds of poultry was imported from Poland.

Meat by kind	2008	2009	2010	2011	2012**
Meat, total	147,0	133,1	114,5	128,4	122,2
of which:				- 7	7
beef	6,3	2,9	3,4	3,4	2,0
pork	94,5	95,6	78,5	83,2	80,0
poultry	33,2	26,1	21,6	25,2	32,0

Table 2.33. Meat* imports by kind in 2008–2012, thousand tonnes

* Meat products converted into meat.

** LIAE calculation.

Sources: Agriculture in Lithuania 2011. Vilnius: Department of Statistics, 2012. ISSN 2029-3658;

Department of Statistics data.

The livestock-breeding sector is significant in sourcing food products to Lithuanian consumers, an important source of exports and supplier of raw materials to the industry. However, lately those willing to undertake livestock-breeding have been still less numerous due to the lack of experience in setting up a new livestock-breeding farm, and what is most important – financial support and own funds for acquisition of an animal herd, farms and technologies. High environmental requirements are finally frustrating to anyone who wishes to take up this business, since pig-breeding is opposed to the pollution standards of the chemistry industry.

3.4. Rape

Application of alternative energy resources is becoming still more important not only in the EU but also throughout the world. Rape is one of the agricultural crops used for biofuel manufacturing. The increased purchase prices for rapeseed stimulate the farmers to cultivate this crop. Almost all rape cultivated in our country is used for production of biofuel.

In 2012 the global rapeseed harvest did not differ from the previous period (Table 2.34). The largest portion of rapeseed is cultivated in China, Canada, India, and the EU countries. The major producers in the EU – Germany, France, the United Kingdom, and Poland. Lithuania is seventh in the EU by the rapeseed harvest.

1		/	
Indicators	2010-2011	2011-2012	2012–2013
World harvest, total	60,55	61,00	60,63
of which:			
EU-27	20,75	19,08	18,80
China	13,10	13,43	13,50
Canada	12,79	14,61	13,31
India	7,10	6,20	6,30
Australia	2,36	3,12	3,09

Table 2.34. World harvest of rapeseed in 2010–2013, million tonnes

Source: Data of Agricultural and Food Market Information System.

In 2012, 18.8 mill. t or 31% of the aggregate global rape yield was harvested in the EU countries, with a part thereof used for biofuel production. The EU at present has changed its approach to the biofuel production. It is proposed to restrict and curtail the production of traditional biofuel from rapeseed and cereal grains from 10% (of the total fuel used for transport in the country) to 5%. The remaining 5% should consist of biofuel of second generation manufactured from agricultural and wood waste. Thus it was aimed to reduce a negative impact of biofuel production on the food product balance and greenhouse effect, caused by the exhaust gases.

Cultivation. Rape is the long-day plant. The vegetation of winter rape is 130–180 days (the total length of vegetation is 270–320 days), and spring rape – 80–110 days. For rape harvest maturity the total sum of $1700-2300^{\circ}$ C of active temperatures is needed. Just 60–70% of the national soils are good for rape cultivation.

During the period of 2008–2012 rape crop areas increased by 63%, and the yield was by almost twice more abundant (Table 2.35). In 2000, in Lithuania, rape cultivation was at a low level – just 50 thousand ha, and an impulse, however, was given to the development of this crop by the emergence of biofuel plants in Lithuania and the increased need for rapeseed. Within a rather short period the farmers grew the required amount of this crop for biofuel production.

Indicators	2008	2009	2010	2011	2012	2012, compared to 2008, %
Area, thou. ha	161,6	191,9	251,9	250,2	263,4	63,0
Harvest, thou. t	330,3	415,8	416,7	484,3	632,9	91,6
Yield, t/ha	2,04	2,17	1,65	1,94	2,40	17,6

Table 2.35. Crop area, harvest and yield of rape in 2008–2012

Source: Data of Statistics Lithuania.

Since 2009 the crop areas under spring rape has been increasing permanently, whereas those under winter rape decreased; in 2012, however, the winter rape crop areas increased to 77.9 thousand ha and of spring rape – decreased (Fig. 2.28). This predetermined the higher yield and harvest of rapeseed.



Fig. 2.28. Area under rape crops and seed yield in 2008–2012 Source: Data of Statistics Lithuania.

Market. During the year 2012, in Lithuania, 581.9 thou. t of rapeseed, or nearly by half more than in 2011, was purchased from rapeseed growers (Table 2.36). In addition to the increased demand in rapeseed (20%) on the domestic market, its export was up by almost a half.

Indicators	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Amount, thou. t	299,4	368,0	385,9	395,0	581,9	94,4
Price, LTL/t	1269	836	1099	1458	1575	24,1
Value, LTL mill.	379,9	307,7	424,1	575,9	916,5	141,2

Source: Data of Statistics Lithuania.

In 2012, in Lithuania, the average purchase price for rapeseed (1559 LTL/t) within 2008–2012 increased by one-fourth, though in 2009–2010 it was significantly lower than in 2012. The average prices in 2011 and 2012 almost did not differ (Fig. 2.29).



Fig. 2.29. Average purchase price of rapeseed in 2008–2012, LTL per tonne Source: Data of Agricultural and Food Market Information System.

In some Central and East European countries the rapeseed purchase prices in 2012, compared to 2008, also increased greatly (Table 2.37). This shows that tendencies on the Lithuanian market comply with the European tendencies.

Table 2.37. Average price of rapeseed in selected EU countries in the 45th week of2008–2012, LTL per tonne

Countries	2008	2009	2010	2011	2012	Change 2012, compared to 2008, %
Lithuania	1032	829	1318	1406	1547	49,9
Germany	1069	853	1368	1456	1586	48,4
Latvia	1225	724	1213	1415	1606	31,1
Estonia	1042	804	1128	1512	1623	55,8
Poland	1155	912	1277	1529	1670	44,6

Source: Data of Agricultural and Food Market Information System.

In 2012, in comparison with 2011, rapeseed export in Lithuania in terms of value increased twice (Table 2.38). This was conditioned by the growing demand in rapeseed on the markets of other states. The average price for exported rapeseed due to its constantly increasing demand for biofuel production and insufficient supply within 2008–2012 increased by 39%, and in 2012, as compared to 2011, by 9%.

Year	Amount, thou. t	Price, LTL/t	Value, LTL mill.
2008	193,2	1201	232,0
2009	297,3	953	283,3
2010	278,5	1138	316,9
2011	219,1	1526	334,3
2012	418,0	1666	696,3

Table 2.38. Export of rapeseed in 2008–2012

Source: Data of Statistics Lithuania.

In 2012 the major part of rapeseed was purchased from Lithuania by Germany – 28.1%, Belgium 20.9%, Poland 12.4%, and Latvia 11.4%.

Balance of foreign trade in rapeseed is positive. Imports consisted of only 4.4 thou. t. of rapeseed. The major part of imported rape is intended for seed.

Processing. In 2012 Mestilla UAB and Vaizga UAB processed about 300 thou. t of rapeseed and manufactured 97 thou. t of biodiesel. Within the period of 2008–2012 the manufacture of this product increased by one fourth. Almost all the fuel manufactured from rapeseed is exported as Orlen Lietuva AB purchases biofuel from Latvia and Poland.



Fig. 2.30. Production of biodiesel in Lithuania in 2008–2012, thousand tonnes *Source: Information of Ministry of Agriculture.*

Rape cultivation is an attractive branch of plant growing – its demand excels supply not only in the major EU countries, but also in the world. Prices are increasing both on the domestic and foreign markets. Analysis shows that Lithuania has potential opportunities to increase the areas under rape crops not only in Lithuania, but also to export some part of rapeseed.

SUMMARY

In 2012 the agricultural and food sector accounted for 8.7% of the gross valueadded created in the Lithuanian economy, comprised more than 18% of the total foreign trade turnover, guaranteed workplaces for nearly one tenth of the employed population.

Aiming to increase the competitiveness of agriculture, to maintain farmers' income, to reduce social disjuncture between rural and urban residents, to protect the environment, the economic entities are supported from the EU and national budgets. In 2012 the funds for agriculture made up LTL 2,791 million i. e. 2.3% more than in 2011.

In 2012 the export of agricultural and food products totalled LTL 14,632 million (26.9% more than in 2011), while the import amounted to LTL 11,244 million (17.4% more). Starting 2004 (when Lithuania joined the EU) the balance of foreign trade of agricultural and food products was positive. In 2012, as compared to 2011, it increased by LTL 1,391 million and reached LTL 3,388 million.

In 2008–2012 the number of agricultural entities by category was changing unevenly. In 2012, as compared to 2008, the number of registered family farms went up by 5.3% and, as compared to 2011, increased by 2.4%. With reference to the data of declarations, over the abovementioned 5-year period the number of agricultural companies and other enterprises increased by 32.2%, while the number of holdings went down by 21.3%. The average farm size of agricultural entities that declared UAA in 2012 was 17.5 ha, or by 7.4% larger than in 2011 and by 21.5% more than in 2008.

In 2012 the certified organic area in Lithuania occupied 163 thousand hectares and was by 3.0% larger than in 2011. The average size of certified farm (including fishery farms) increased from 60.8 ha (in 2011) to 64.8 ha (in 2012).

The total land area by land category remained almost unchanged. The largest its proportions made up the area used for agricultural purposes (60.4%) and the area of forestry land (30.3%).

Recently the most important changes were going in the structure of rural population employment. In 2008 only 24.3% of rural working population were employed in agriculture, forestry and fisheries, but due to the economic crisis this share increased up to 29.9%. already in 2009. Lately, when the economic situation has improved, the share of population employed in agriculture is going down while the share of population involved in services is going up. In 2012, 28.2% of the employed rural population were involved in agriculture, forestry and fisheries.

In 2012, as compared to 2011, the number of SMEs in rural areas increased by 4.2% and reached nearly 10 thousand (of which 78% made up micro-enterprises). Rural SMEs employed 96 thousand or one fourth of the total number of rural working population.

Prospects for further development of the agricultural and food sector are favourable. The growth in world demand for agricultural and food products and higher prices increase the interest to expand production capacity. Significant investments in modernisation of farms, raising of labour productivity, optimisation of performance and food supply to consumers should make the preconditions for an increase in production amounts.