IMPORTANCE AND DEVELOPMENT OF FRUIT SECTOR IN POLAND – COOPERATION OF PRODUCERS

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Abstract. The article describes the Polish fruit sector with particular emphasis on entering into cooperation by establishing producer groups and organisations. It underlines the increasing role of this sector in agricultural production in Poland, which was undoubtedly stimulated by the Polish accession to the European Union, which allowed Polish fruit farmers to conquer the European and the global markets. The article presents fruit production in Poland in the years 2011-2015, the data related to the export of the Polish fruit and the status of organisation of fruit farmers into groups and organisations of producers. Accession to the EU enabled taking group action, for which a financial support from the EU funds is available, in accordance with fruit and vegetables market common organising. In addition, the changes in financing of the preliminarily recognised fruit producer groups, which apply in Poland from January 1, 2014 are discussed at The Ministry of Agriculture in Poland and in the EU.

Key words: fruit sector, fruit production, groups and organisations of producers, Poland, cooperation.

JEL code: Q13

Introduction

Poland is one of the main global producers of fruit growing regions with a temperate climate. In terms of fruit production among the countries of the European Union, it takes the place after Italy, Spain and France. Poland is the largest producer of apples in the European Union and the fourth one in the world after China, the United States and Turkey. Fruit production is an important sector of agricultural production. Share of fruit in the market value of crop production is 15%. In recent decades, Polish fruit farming followed changes taking place in the whole food economy, adopting to the rules of the free market economy and changing market conditions.

Poland’s accession to the European Union in 2004 has helped Polish fruit farmers in commercial expansion into the Community market. Reasonable use of the EU funds, mainly for the development of the production and storage infrastructure, helped in increasing the competitiveness of Polish fruits and fruit products on the European and global markets. It has been also fostered by organising of farmers in producer groups and organisations. There were more than 300 active producer groups and organisations (111 preliminarily recognised groups of fruit and vegetable producers and 193 recognised producer organisations) by November 2015 in Poland. Seven thousand and three hundred fruit and vegetable producers were members of these groups.

The aim of this article is to describe the Polish fruit sector, with particular reference to integration activity among the fruit producers.

Research results and discussion

In the years 2004-2015, fruit crops in Poland ranged from 5 to 13.5% of fruit production in the European Union. In 2014, they were at a record level of 4.2 million tonnes by 30% higher than the average harvest in the years 2004–2013. Fruit production in Poland compared to the production in the European Union is shown in Table 1.

The growth of fruit production in Poland is fostered by sufficient land and a large number of producers with a high level of expertise and marketing knowledge and by their entrepreneurship and innovation. An important factor is taking group actions, because this makes it possible to consolidate the supply, prepare standardised deliveries and implement innovation in production, preparation for sales and sale of products.

Table 1

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<thead>
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</thead>
<tbody>
<tr>
<td>EU-15</td>
<td>32.00</td>
<td>30.90</td>
<td>32.40</td>
<td>29.80</td>
<td>30.70</td>
<td>30.90</td>
<td>30.30</td>
</tr>
<tr>
<td>EU-28</td>
<td>38.60</td>
<td>36.70</td>
<td>38.60</td>
<td>36.50</td>
<td>37.80</td>
<td>38.00</td>
<td>36.90</td>
</tr>
<tr>
<td>Poland</td>
<td>3.60</td>
<td>2.70</td>
<td>3.40</td>
<td>3.80</td>
<td>4.10</td>
<td>4.20</td>
<td>4.00</td>
</tr>
</tbody>
</table>

¹ Estimations of the Institute of Agricultural and Food Economics (IERiGŻ)
An important factor in stimulating the development of national fruit production is the export. From accession of Poland to the European Union, total income from export of fruits increased as much as 3.5 times (from EUR 210 million in 2004 to EUR 728 million in 2013 (Rynek owocow..., 2014)). Largely due to an embargo introduced by Russia in 2014, income from sales of fresh fruit fell to EUR 540 million (data provided by the Ministry of Finance).

1. Structure of fruit production in Poland

Poland belongs to the group of the largest fruit and vegetable producers in Europe (Filipiak, Maciejczak, 2008; Jabłonska, 2008; Jabłonska, Olewnicki, 2011; Nosecka, 2012). The development of gardening is the answer to growing demand of the getting rich Polish society and, at the same time, horticultural crops, which are characterised by high intensity, made it possible to increase land productivity and workforce. Poland has fairly good natural climatic conditions for the cultivation of most horticultural plants in the soil, nonetheless for higher and better-quality production its proper zoning is important and irrigation is necessary due to insufficient annual precipitation. However, less favourable are thermal and solar conditions for growing of production under the covers, which makes it highly energy-consuming. A factor favouring the development of horticulture is the increase in market capacity, which is a reflection of the number of inhabitants and level of population’s wealth (Jabłonska, Olewnicki, 2014).

Fruit crops in 2015 in Poland were approx. 4.0 million tonnes and were by 4.3% smaller than in the previous year. In the same period, the harvest of apples decreased by 3% to 3.1 million tonnes. It was due to weather in Poland in 2015. During the summer there was a drought and very high temperature prevailed. Approximately 40% of apple orchards fitted with sprinklers and using fertilisation reached high quality yields. In the non-irrigated orchards, many immature apples fell as early as in July. Quality of these fruits was low, they were small and undersized. Table 2 shows the fruit crops in the years 2011-2015.

Table 2

<table>
<thead>
<tr>
<th>Item</th>
<th>Fruit crops in thousand tonnes</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
</tr>
<tr>
<td>Total fruits</td>
<td>3414.60</td>
</tr>
<tr>
<td>Tree fruits and nuts, including:</td>
<td></td>
</tr>
<tr>
<td>apples</td>
<td>2887.00</td>
</tr>
<tr>
<td>plums</td>
<td>91.80</td>
</tr>
<tr>
<td>cherries</td>
<td>175.00</td>
</tr>
<tr>
<td>walnuts and hazelnuts</td>
<td>13.60</td>
</tr>
<tr>
<td>berries including:</td>
<td></td>
</tr>
<tr>
<td>Strawberries</td>
<td>527.60</td>
</tr>
<tr>
<td>Raspberries</td>
<td>166.20</td>
</tr>
<tr>
<td>High-bush blueberries</td>
<td>8.60</td>
</tr>
</tbody>
</table>


Not only production of apples but also production of berries decreased. A definite factor was the fall of harvest of raspberries (by 36.5%). It concerned especially autumn varieties as well as chokeberries and currants. As mentioned before, direct cause of the fall of fruit harvest in Poland in 2015 was a drought lasting from mid-July to late September. However, at the same time, there was an increase in the harvest of strawberries and high-bush blueberries, by 1.7 and 1% respectively. Lower harvest in 2015 was compensated by price increases. For example, very low prices of apples in the season 2014/2015 were the result of nervous reaction of producers to the embargo imposed by Russia in August 2014. Apples were sold immediately after harvest, which resulted in an increase in their supply. A fairly large export, increase in consumption of apples in the country, the EU's aid to the withdrawal of apples from the market resulted in a significant shortfall by the end of the season 2014/2015. This caused an increase in price of food-
grade apples, which in June 2015 was averagely EUR 0.50 per kg and were twice as high as in March 2015. In the current season 2015/2016, the Russian embargo still applies; however, decisions concerning the producers distribution are reasonable. The current year’s harvest has been transferred to the storage with a controlled atmosphere and will be exported in the second half of the season or withdrawn from the market in accordance with the decision of the EU.

1. Polish fruits as a matter of foreign trade

Poland is a major exporter of fruits, especially apples. In the season 2015/2016, the export of fruits in Poland is to reach 1.17 million tonnes, including apples in the quantity of 940 thousand tonnes. The embargo on import of fresh, frozen and dried fruits and vegetables from the EU countries introduced by Russia in 2014 has resulted in diversification of markets for these products exported from Poland. Among the recipients of the Polish fruits, there is an increase in export to countries such as Belarus, Ukraine, Kazakhstan, Lithuania, Latvia, Romania and the Czech Republic. New markets include Middle East countries – the United Arab Emirates, Jordan, Saudi Arabia and the African countries. Export of fruits to these countries in the season 2014/2015 has increased 10 times compared to last season, from 1.5 thousand tonnes to 16 thousand tonnes. Poland hopes to develop cooperation with and export of Polish fruits also to China and Vietnam. Table 3 shows the basic data regarding the export of Polish fruits in the seasons 2012/2013 - 2015/2016 (forecast) by fruit species and main export markets for Polish apples (Table 4).

<table>
<thead>
<tr>
<th>Export of Polish fruits by fruit species (thousand tonnes)</th>
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<tbody>
<tr>
<td>Total fruits</td>
</tr>
<tr>
<td>Apples</td>
</tr>
<tr>
<td>Pears</td>
</tr>
<tr>
<td>Strawberries</td>
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<tr>
<td>Raspberries</td>
</tr>
<tr>
<td>Cherries</td>
</tr>
<tr>
<td>Plums</td>
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<tr>
<td>Tropical fruits (re-export)</td>
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<tr>
<td>Other fruits</td>
</tr>
</tbody>
</table>

1 inconclusive data
2 estimates

Source: Rynek owocow i warzyw – stan i perspektywy (Fruit and Vegetable Market - The Current Status and Prospects) . Institute of Agricultural and Food Economics, 2015.

<table>
<thead>
<tr>
<th>Main directions of export of Polish apples (thousand tonnes)</th>
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<tbody>
<tr>
<td>EU-15</td>
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<tr>
<td>EU-13</td>
</tr>
<tr>
<td>Latvia</td>
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<tr>
<td>Lithuania</td>
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<tr>
<td>Romania</td>
</tr>
<tr>
<td>Czech Republic</td>
</tr>
<tr>
<td>Other EU-13</td>
</tr>
<tr>
<td>CIS</td>
</tr>
<tr>
<td>Belarus</td>
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<tr>
<td>Ukraine</td>
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<tr>
<td>Kazakhstan</td>
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<tr>
<td>Russia</td>
</tr>
<tr>
<td>Other countries</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: The Ministry of Finance Data.
As it is demonstrated by the data of Tables 3 and 4, apples are by far predominant in the export of Polish fruits. Until the Russian embargo, Russia was the main export market for Polish apples. In the season 2012/2013 Russian share in the export of Polish apples accounted for 58%, and in the season 2014/2015 the share had fallen close to 2% (the embargo has been imposed on August 1, 2014). From 2014 the main export market for Polish apples is Belarus, and its share in the season 2014/2015 in the export of Polish apples was nearly 31%. In the 2014/2015 season, the increase in the export of Polish apples to countries such as Latvia (a 5 times increase in relation to the previous period (4 times increase) and the Czech Republic is also clearly noticeable. After the imposition of the Russian embargo, Poland launched many measures to increase the consumption of apples in the country. By the end of the summer and in autumn of 2014 apples were ubiquitous: they were served for free in the trains, the politicians and celebrities encouraged eating them, the campaign was described by foreign media and was supported by guests performing in Poland, Cirque du Soleil, for example. It stimulated the increase in apples consumption by Poles. It is also worth mentioning that in Poland, since its accession to the European Union, nine informational and promotional campaigns have been arranged to convince about the fairness and the benefits of eating fruits and vegetables. From May 2004 the European Commission has granted about EUR 28.8 million to Poland for the implementation of these programmes. In 2015 inter alia, the following programmes have been executed:

• "European two-colored apples“ – three-year informational and promotional campaign launched in 2014 and run in the markets of China and the United Arab Emirates;
• "Apples Every Day“ – the campaign carried out in the years 2012-2015 mainly in the markets of Russia and Ukraine;
• "Five portions of fruits or vegetables or juice“ – the campaign, which was a sequel of the programme Vegetables and Fruits five times a day.
• In addition, by 2015 the Agricultural Market Agency signed the agreements for carrying out subsequent campaigns:
  • “Extraordinary properties of ordinary fruits“ – 3-year-old campaign concerning the berries (strawberries, raspberries, currants and blueberries) addressed to Sweden, Finland, Austria, Czech Republic and Poland;
  • "Juices and mousses“ - vitamins in a smart form – campaign to promote the consumption of juices and mousses from fruits and vegetables;
  • "EcoEurope – quality and tradition“ – informational and promotional campaign concerning organic farming products, including fruits, vegetables and their products. It will be carried out in the American, Japanese and Singaporean markets.

In addition, in 2009 a Fund for Promotion of Fruits and Vegetables was established in Poland, financed by the industry. It was created in order to support agricultural marketing and increase fruit and vegetable consumption. There is 40.1 million PLN (about 10 million EUR) on this account, from its opening in 2009, by the end of October 2015. The money comes from about nine thousand companies.

2. Groups and organisations of producers of fruits and vegetables – taking group actions

The accession of Poland to the EU in 2004 allowed the Polish food producers to start the commercial expansion into the European and global markets. This expansion means the conquering of new markets and building strong brands for Polish products, including fruits. This expansion was made possible through the use of EU funds, mainly for the development of the production and storage infrastructure. Also, since accession to the European Union, it has been important to take action for integration among agricultural producers, in particular, the horizontal integration activities. The manifestation of the horizontal integration of fruit producers is the establishment of preliminarily recognised groups of fruit and vegetable producers and recognised producer organisations. These measures made it possible to increase the commercial competitiveness of the Polish fruits on a global scale. Development of the production and export of fruits requires efficient organisation of the market and a proper preparation of the offer in terms of quality, quantity and continuity of supply. Sales and delivery of fruits to the customer in the demanding markets are only possible using modern systems of packing and the principles of modern logistics (Strategia krajowa…, 2013). With the EU funding the groups of fruit and vegetable producers have specialized equipment for harvesting, storage and preparation of fruits for sale. The groups have their own
storage bases, specialized for cleaning, sorting, packaging and conditioning of fruits as well as means of transport for delivery of products to customers, while maintaining their quality. Through group actions agricultural producers are able to obtain benefits, which are very hard to achieve by acting alone. These include (Adamowicz, Lemanowicz, 2006):

- planning and adjusting production to demand, especially regarding quality and quantity of supplied agri-products;
- concentrating supply of agri-products, which enables to strengthen farmers’ position during negotiations with representatives of next stages of the distribution channel;
- making bigger batches of agri-products;
- implementing quality standards, resulting in higher quality of agri-products;
- creating and promoting proper brands;
- active selling, i.e. searching for new ways of sale both in the country and abroad;
- participation of capital in establishing new primary market entities, e.g. wholesale markets and commodity markets.

Producer groups operating in the fruit and vegetable market are subject to the common organisation of the fruit and vegetable market. After accession to the European Union, preliminarily recognised groups of fruit and vegetable producers and recognised producer organisations could be established in Poland. Preliminarily recognised groups of fruit and vegetable producers received the status of fruit and vegetable recognised producer organisations at the latest after 5-year-long period of implementation of the recognition plan. In 2004, that is in the year of accession of Poland to the European Union, there were founded eight producer organisations and twenty four preliminarily recognised producer groups. In November 2015, there were 193 producer organisations and 111 preliminarily recognised producer groups in Poland. These organisations had 7300 members. Quantitative development of the groups and organisations of producers active in the fruit and vegetable market in the years 2004-2015 is shown in Figure 1.

Within common organisation of the fruit and vegetable market, preliminarily recognised groups of fruit and vegetable producers received a financial support to cover the costs associated with the establishment of a producer group, for administrative activity and for some investment’s eligible costs defined in the approved recognition plan. As regards recognised producer organisations, financial aid is intended for financing the operating fund established by the group. The operating fund is established by the producer organisation in order to finance the activities approved in the operational programme.

![Graph showing number of preliminary recognised producer groups and recognised producer organisations in Poland in the years 2004-2015](image)

**Source:** The Agency for Restructuring and Modernisation of Agriculture Data.

**Fig. 1. Number of preliminarily recognised producer groups and recognised producer organisations in Poland in the years 2004-2015**

A very important event related to the activity of groups of fruit and vegetable producers was the EU Regulation No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007. The provisions of this Regulation are in

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force from 1st January, 2014. Although they cancel the
previous mechanism of the previously separate financial
aid to the preliminarily recognised fruit and vegetable
producer groups for implementation of the approved
recognition plans. From January 1, 2014 there is no
legal basis for the granting of financial support to cover
the costs associated with the establishment of producer
groups, for administrative activity and for some
investments eligible costs defined in the approved
recognition plan for the new beneficiaries. That is, for
the producer groups, which apply for preliminary
recognition status after January 1, 2014. However,
pursuant to Art 231, Section 2 of the above-mentioned
Regulation, all multi-annual programmes adopted
before January 1, 2014, after the entry of this
Regulation into force shall continue to be subject to the
relevant provisions of the previous Regulation (EC) No
1234/2007, until the expiry of these programmes that
is up to December 31, 2018. Until December 31, 2013
preliminary recognition status could be granted to
producer groups, which had not been able to meet all
the conditions for full recognition. In most cases they
had not yet had the technical equipment and had no
experience in administration, management and conduct
of the sale of fruit and vegetables produced by its
members (Lemanowicz, 2015). In accordance with the
new EU regulations in force from 2014, the support
from the EU funds for investments in producer groups
related to their establishment and activity has been
cancelled but the existing support for producer
organisations has been maintained. The lack of
financing for the preliminarily recognised groups
resulted in impeding the establishment of these groups
and it may lead to the collapse of group action in the
fruit market.

Conclusions

1) Poland belongs to a group of the largest fruit
producers in Europe. In 2015 the fruit crops were 4
million tonnes, including harvest of apples, which
totalled 3.1 million tonnes.
2) Fruit crops in 2015 were lower than in the years
2013-2014, which was caused by drought and very
high temperatures in the period from July to
September.
3) A significant event affecting the situation of the
fruit market was the embargo imposed by Russia in
August 2014. This has led to a diversification of fruit
markets for fruits from Poland. An increase in
export to countries such as: Belarus, Ukraine,
Kazakhstan, Lithuania, Latvia, Romania, the Czech
Republic was visible. New markets include Middle
Asia countries: the United Arab Emirates, Jordan,
Saudi Arabia and the African countries. Poland
hopes to enter into cooperation with China and
Vietnam.
4) The acquisition of new markets is possible due
to the integration measures consisting in the
establishment of producer groups and organisations.
The producer organisations and groups make it
possible for the Polish farmers to consolidate the
supply, prepare standardised product batches and
with base storage provide the supply throughout the
season.
5) In 2015, 7300 fruit and vegetable producers
were members of these groups. One hundred eleven
preliminarily recognised groups of fruit and
vegetable producers and 193 producer organisations
existed in the market.
6) The financial aid is granted within the common
organisation of the fruit and vegetable market. Until
January 1, 2014 both producer groups and producer
organisations could benefit from this support.
Currently, there is no legal basis for granting of
financial aid to preliminarily recognised groups
established after January 1, 2014.

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5. The Ministry of Finance Data.


8. Rynek owoców w Polsce (Fruit Market in Poland), Agricultural Market Agency 2014.
