

MARKET ANALYSIS OF PEARS IN ROMANIA

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Abstract

In the present paper there are highlighted several aspects referring to the activity of producing and marketing of pears in Romania during the period 2012-2017. In order to carry out a study that reflects the finalization of pears at national level, various specific indicators were analysed, such as: the total number of bearing pear trees in Romania; total pear production obtained internally; average pears production per tree at national level; the average price for table pears on the domestic market; imports and exports of pears both in terms of quantity and value. In Romania, nowadays, table pears are among the fruits appreciated by consumers, with an average annual consumption per capita of over 4.5 kg. In order to insure the amount of pears needed for domestic consumption, Romania imports significant annual quantities of pears. In this context, farmers in Romania can also focus on setting up pear plantations because they are less vulnerable to disease and are cost-effective even on less extensive surfaces. The National Institute of Statistics and specialized international sites were the main providers of statistical data that led to the realization of this study.

Key words: pears; total production of pears, average pear production per tree, annual average consumption of pears per capita, Romania

INTRODUCTION

Worldwide, the pear tree is grown on smaller surfaces compared to the apple tree, because it has a higher yield which maintains in time. In 2017, 1,385,629 ha of pears were grown on the globe. Pears are the first fruits grown and are part of the *Rosaceae* family. At present, over 5,000 varieties of pears are known, which are classified into two representative categories: European pears and Asian pears [8].

In Romania apples, pears, peaches, plums and grapes belong to the fruits that are the most appreciated and consumed by consumers [1, 5, 13].

Nowadays there is a particular emphasis on the consumption of fruits and vegetables worldwide. Specialists in the field recommend that one person should consume more than 400 grams of fruits and vegetables a day [10]. Pears are, on the one hand, those fruits that can be eaten fresh, and on the other hand they represent important raw material for the food industry. Pears are especially valuable for

human consumption because they contain a series of vitamins and minerals that help to strengthen the immune system. In Romania are grown a series of pear varieties such as: Triumf; Trivale; Aromata de Bistrita; Napoca; Williams; Abatele Fetel; Untoasa de Geoagiu etc [11].

Pears, as well as other fruits, are perishable and therefore it is necessary to use specific distribution channels to avoid their loss of quality [9].

In order to create profitable pear plantations, fruit growers must take into account some key aspects such as:

- Placement of plantations on land with south, south-east or south-west exposure, since pear trees have high light requirements;

- In areas where pear trees are grown, winter temperatures should not exceed -26 degrees Celsius;

- Pear trees need fertile soils with high humidity and depth [11].

Nowadays, in Romania, those who want to create profitable pear plantations are advised by specialists in the field to focus on

cultivating the following varieties: Nopaca; Untoasa de Geoagiu; Cure or Popești; Doina; Aromata de Bistrita [2].

MATERIALS AND METHODS

This study highlights the main elements specific to the activity of producing and marketing pears in Romania. The main indicators that have been analyzed in the paper are: the total number of pears at national level; domestic pear production; average pear production per tree; the average price for pears in Romania; quantitative and value imports and exports. The statistical data concerning pears were taken from the National Institute of Statistics and also from other profile sites. In order to overcome the activity of producing and capitalization of pears in Romania, a number of specialized materials were investigated. The research of the main indicators in this study was polarized on the interval 2012-2017. The results of research on the production and capitalization of pears at national level were illustrated graphically.

RESULTS AND DISCUSSIONS

The number of bearing pear trees in Romania for the interval 2012-2017 presented modifications from one year to year (Fig.1). The most representative number of bearing pear trees at national level was recorded in 2013 (3,484,785 pear trees) and the lowest number was identified in 2017 (3,153,616 pear trees). In 2017, we witnessed a reduction in the number of bearing pear trees by 8.6% compared to the base year (2012). In 2017, the number of bearing pear trees in Romania occupied for 4.18% of the number of fruit-bearing fruit trees.

At the national level, pear production in the period 2012-2017 has seen annual variations (Fig.2).

The pear production obtained in Romania is mainly destined for the domestic market. From the production of pears obtained in Romania in 2016 (52,751 tonnes), only 7.0 tonnes were exported.

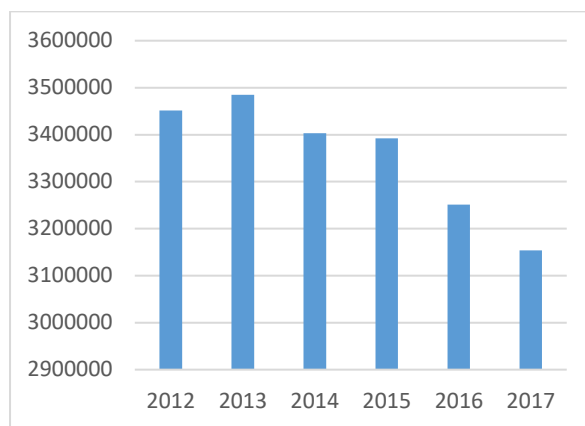


Fig. 1. Evolution of the number of bearing pear trees in Romania in the period 2012-2017 (number)

Source: Own design based on NIS Tempo-online database 2019 [6]

The data show that the largest production was achieved in 2013 (66,849 tonnes) and the smallest production was 45,595 tonnes (2015). In 2017, total pear production in Romania decreased by 9.95% compared to 2012. This decrease in production is mainly due to the reduction of the number of bearing pear trees internally. In Romania, in the year 2017, the production of pear produced occupied for 4.61% of the fruit production realised internally. In the year 2017, the production of pears accounted for 4.61% of the domestically fruit production. In 2017, a pear production of 24,168,309 tonnes was achieved worldwide. In this context, Romania, in 2017, obtained 0.20% of the world's pear production. This aspect shows that Romania is not an important player in the international pear transactions. The worldwide pear production in 2017 was distributed as follows: Asia (76.3%); Europe (11.6%); Americas (8.4%); Africa (3.2%) and Oceania (0.5%) [3].

The largest production, in 2017, was obtained by China, 16,410,000 tonnes. Romania has achieved only 0.29% of the pear production achieved by the world leader. China, the leading pear grower in the world made a farm gate price in 2015 of 498 USD/tonne compared to Romania, which made a price of 1,130.9 USD/tonne [3]. At the European Union level, there are a number of countries where the farm gate price per tonne of pear is

much lower than the one made by the Romanian producers.

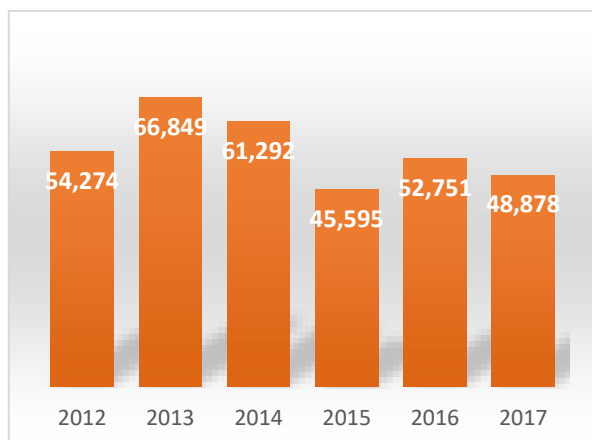


Fig. 2. Evolution of total pear production in Romania in the period 2012-2017 (tonnes)

Source: Own design based on NIS Tempo-online database 2019 [6]

At national level, the average pear production per tree varied in the interval 2012-2017 (Fig.3). The most representative average pear production per tree was 19 kg (2013) and the smallest was 13 kg (2015). In Romania, in 2017, the average pear production per tree reduced by 6.25% compared to 2012. The average pear production per tree achieved in Romania in 2017 was by 7.14% higher compared to the average obtained by species of fruit trees at national level.

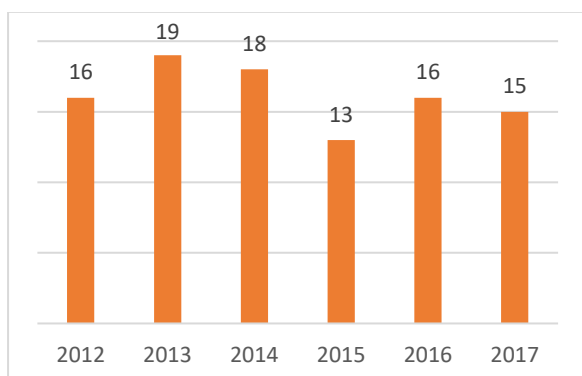


Fig.3. Evolution of average pear production per tree in Romania in 2012-2017 (kg/tree)

Source: Own design based on NIS Tempo-online database 2019 [6]

Annual average consumption of pears per capita varied between 4.4 kg and 4.7 kg between 2015 and 2016 [7].

Annual average consumption of pears per capita increased by 6.81% compared to 2015.

In 2015, in Romania, the annual average consumption per inhabitant accounted for 5.01% of the average annual consumption of fruits and fruit products, and in the year 2016 it accounted for 4.89%.

In Romania, between 2012 and 2017 there were average consumption prices different from one year to another for table pears (Fig. 4). The biggest average price for table pears was 5.21 lei / kg (2017). In Romania, in 2017, the average price for table pears increased by 24.34% compared to 2012. At the opposite end, the lowest average price for table pears was recorded in 2013 (4.18 lei / kg). From the data presented, it is observed that, during the analyzed period, the average prices for table pears did not show very high variations. This highlights, first of all, that pears represent, in essence, one of the most known types of fruit, and like these, that they keep a high price during the season and also every year [2].

The high average prices for table pears can be a motivation for farmers who want to set up their pear plantations.

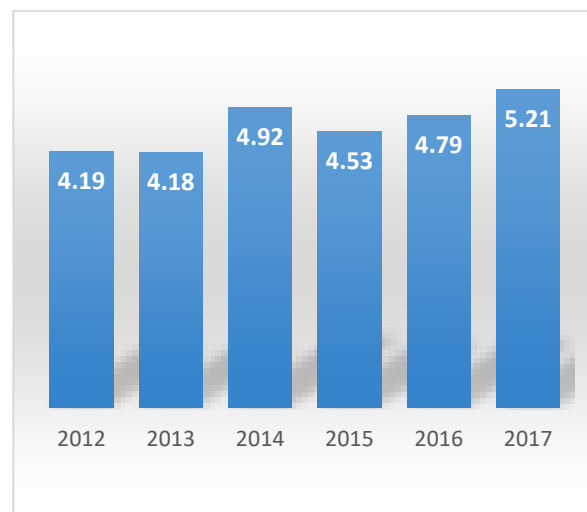


Fig.4. Dynamics of average prices for table pears in Romania, in the period 2012-2017 (lei/kg)

Source: Own design based on NIS Tempo-online database 2019 [6]

From the data on the quantitative imports of Romanian pears, between 2012 and 2016, there are changes from year to year (see Fig. 5). Quantitative imports of pears from Romania are clearly superior to the quantitative exports of pears in the period under review. In 2013, the smallest quantity

of pear imports of 6,532 tonnes was achieved. The largest quantities of pears were imported in 2016 (24,004 tonnes). In 2016, Romania's quantitative imports of pears rose by 161.88% compared to 2012. In 2016, Romania's quantitative imports of pears accounted for 45.5% of the domestic production. By the year 2016, Romania imported significant quantities of fresh apples, pears and quinces from: Poland; Italy; Germany; Netherlands; Hungary; Greece; Macedonia; Belgium and Serbia [12].

This situation reflects the fact that in Romania the pears are in the attention of consumers throughout the whole year. Significant amounts of pears are imported, especially during winter-spring, when no production is obtained in our country.

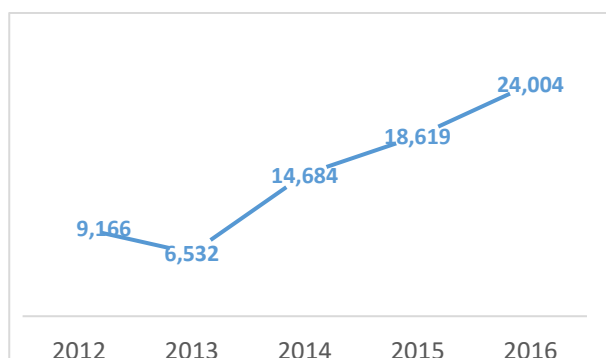


Fig.5. Evolution of the quantitative imports of Romanian pears in 2012-2016 (tonnes)

Source: [3, 4]

In the period 2012-2016, in Romania, the value of pear imports was on an ascending trend (see Fig. 6). In 2012, the lowest import value was registered, \$ 6,218 thousand, and the highest import value was \$ 19,619 thousand (2016). From the statistics presented, it can be noticed that, in 2016, the value of pear imports have grown by 215.51% compared to 2012.

In Romania, the quantitative exports of pears in the interval 2012-2016 oscillated from one year to the next (Fig.7). The most significant quantities of pear exports were made in 2012 (802 tonnes), while the lowest were registered in 2016 (7 tonnes).

From the data presented, it is observed that, in 2016, the quantitative exports have been massively reduced.

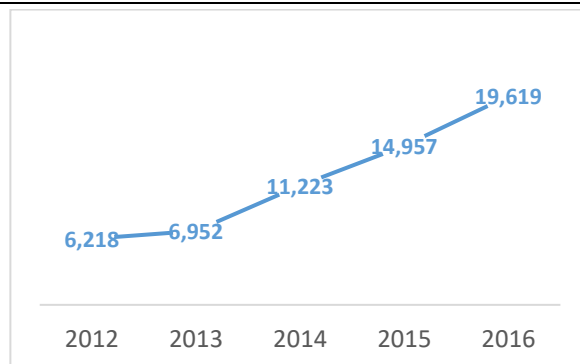


Fig.6. Evolution of the value imports of Romanian pears in 2012-2016 (thousand dollars)

Source: [3, 4]

The decrease in the quantity of pear exports is due to several factors, such as: reduction of domestic production in the context of unfavorable weather conditions; production of inferior quality pears not corresponding to export requirements; high production costs, etc.

In 2012, Romania exported only 1.47% of the domestic pear production, and in 2016 it exported only 0.01% of the production. In 2016, the main markets for Romanian exports of apples, pears and quinces were: Hungary, Germany and Bulgaria [12].

According to the statistically valid data for 2016, the top five pear exporters worldwide were: China (452,435 tonnes); Belgium (327,570 tonnes); Netherlands (315,902 tonnes); Argentina (310,011 tonnes) and South Africa (250,254 tonnes) [3].

In 2016, Romania exported 0.001% of the amount of pear exported by China.

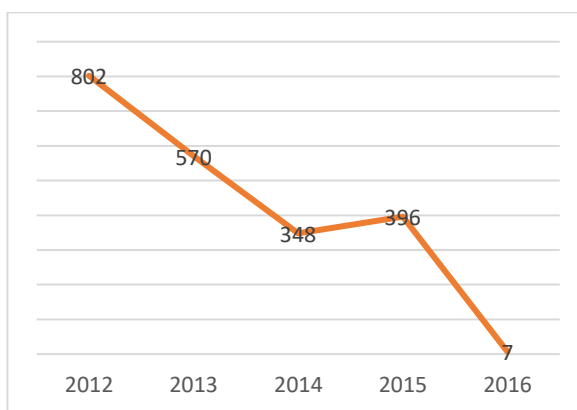


Fig.7. Dynamics of the quantitative exports of Romanian pears in the interval 2012-2016 (tonnes)

Source: [3, 4]

According to statistical data during the interval 2012-2016, the value of the Romanian pear exports was framed on a clear downward trend (Fig. 8). The value of exports is closely correlated with the quantitative exports of pears. The lowest export value for the pear category was \$ 9 thousand (2016), and the highest export value was registered in 2012 (\$ 619 thousand).

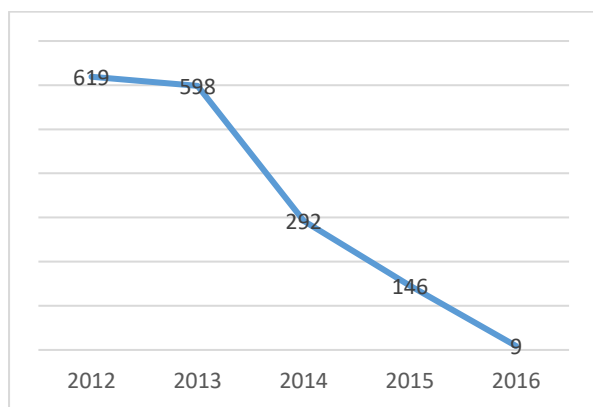


Fig. 8. Evolution of the value exports of Romanian pears in 2012-2016 (thousand dollars)

Source: [3, 4]

CONCLUSIONS

The activity of producing and marketing of pears in Romania during 2012-2017 is characterized by the followings:

-Decrease of the number of bearing pear trees, by 8.6% in 2017 compared to 2012;

-The total production of pears obtained varied from year to year. In 2015, a minimum production was recorded, namely 45,595 tonnes. At the opposite end, in 2013, there was a maximum production of 66,849 tonnes;

-In 2013, we recorded the highest average pear production per tree of 19 kg. This high average production led to the achievement of the largest total production for the analyzed period;

-In 2016, annual average consumption per capita was 6.81% higher compared to 2015;

-Pears are appreciated and demanded by the population on the domestic market. This fact is also reflected by the average price that exceeded the 4 lei/kg threshold in the period 2012-2016. In 2017, the average price for pears exceeded a new threshold of 5 lei/kg;

-Romania's imports of pears are clearly higher than exports, which in the analyzed period led to a deficit in the international trade for this type of fruits. In fact, the deficit has spread to the whole range of fruits and vegetables imported or exported by Romania, within the period under review.

In conclusion, in Romania, the plantations can be established, on the one hand, to ensure a decent income for the growers and, on the other hand, to provide the consumers on the internal market with high quality fruits at affordable prices.

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