# STUDY ON THE PRODUCTION AND MARKETING OF APPLES IN BIHOR COUNTY 

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#### Abstract

The aim of this study was to highlight Bihor County's position within the existing Romanian context, in the period 2014-2018, regarding the production and trade of apples. Thus it is noted that Bihor County had 620,150 apple trees in 2018, which represented only $2.16 \%$ of the romanian total apple trees. This County obtained only $2.44 \%$ of the total Country production, that is 15,721 tons compared to 643,856 tons in Romania. The national trade balance for apples was deficient in 2018. Bihor County can improve its production and trade with apples by using the appropriate measures which support the production sector, such as PNDR 2014-2020.


Key words: apple production, apple trees, Bihor County, Romania

## INTRODUCTION

Romania is a country with tradition regarding the cultivation of fruit trees. Fruit production and marketing is an important sector of activity, because it provides the products needed for the population consumption.

According to Eurostat, Romania is in the last places in terms of fruit consumption, although their benefits are well known.

Since joining the European Union, the fruit-growing sector has been supported by structural funds and measures that help the development of the rural area. (Dona I., 2015, AFIR, PNDR 2014-2020).

According to MADR, quoting NIS, apple is the second most cultivated fruit tree at the country level.

The North-West Region, of which Bihor County is part of, obtained the largest apple production in the country (Chiurciu I.A. et al., 2018).

In this study, will be presented, the number of apple trees, the apple production, as well as the yields obtained and the average selling price of apples in the agri-food markets in Bihor County.

## MATERIALS AND METHODS

The information required for writing the paper was gathered by accessing databases with increased visibility, such as the National Institute of Statistics and specialized romanian and international sites. The indicators
used are: apple trees number, apples production (tons), average apple production ( $\mathrm{kg} /$ tree) and average annual prices of apples sold in the agrifood markets, in the Bihor County. The studied period is 2014-2018. The methods used in the study were the documentation, the comparison, the percentage method. The information colected was presented in tables, illustrated graphically and interpreted.

## RESULTS AND DISCUSSION

From the data collected from NIS, the fruit sector represents only $1.30 \%$ of the area occupied by the main crops in Bihor county. In 2018 the area occupied by orchards was of $3,969 \mathrm{ha}$, from which the individual farms mean 3,926 ha, in decline in the last years.

The total number of apples in 2018 was $2,015,494$, of which 620,150 were cultivated in Bihor County that is $2.16 \%$ of the Romanian total apple trees (NIS).

Of the total trees in the county, 607,702 were cultivated in individual agricultural holdings ( $97.99 \%$ ).

Figure 1 shows the number of apple trees raised in Bihor County, between 2014-2018. There is a slight increase of this number. In 2018, they increased by $0.65 \%$ more apple trees than in 2014. The highest number was recorded in 2015, of 644,498 , and the lowest in 2014, of 616,169 .


Fig. 1. Dynamics of the apple trees number in the period 2014-2018
Source: Own graphics based on NIS, Tempo On-line Database, 2019
Apples ranked second in the top of the most cultivated fruit tree categories in Bihor County, in 2018. The first place was occupied by plums, with 721,204 pieces (NIS), despite the fact that most apple trees are found in the North West Development Region (Soare E., Chiurciu I.A., 2018).

Regarding the total fruit production in Bihor County, in the last year, 2018, it increased to 49,928 tons (NIS).

In the last 2 years, the apple production has registered an upward trend (figure 2), although the number of apples is decreasing (figure 1). Compared to 2014 , in 2018 , the production was $24.3 \%$ lower.


Fig. 2. Dynamics of the apple production during 2014-2018
Source: Own graphics based on NIS, Tempo On-line Database, 2019
Of the 15,721 tons harvested in $2018,15,363$ tons represented the contribution of individual agricultural holdings ( $97.72 \%$ ).

The highest production of apples was obtained in 2014, of 20,768 tons and the smallest in 2016-12,124 tons.

Apple production in 2018 in Bihor County represented $2.44 \%$ of the total Country production ( 643,856 tons).

Analyzing the data presented in figure 3, it is found that the average production obtained for apples, in $\mathrm{kg} /$ tree, has varied during the analyzed period. Thus, the highest quantity of apples/tree was obtained in 2014, of 34 $\mathrm{kg} /$ tree, and the smallest in 2016, of $19 \mathrm{~kg} /$ tree.


Fig. 3. Dynamics of the average apple production in Bihor County during 20142018
Source: Own graphics based on NIS, Tempo On-line Database, 2019
The increase of the average production of apples/tree, due to the inputs and favorable climatic conditions, led to the increase of the total
production of apples in the county (figure 2), under the conditions in which the number of apples was decreasing (figure 1).


Fig. 4. Dynamics of the average annual prices of apples, sold in the agri-food markets, in the Bihor County during 2014-2018
Source: Own graphics based on NIS, Tempo On-line Database, 2019
The average selling prices of apples in Bihor County have been rising. It is noted that they increased by $16.73 \%$ in 2018, compared to 2014 and 2015, when the same value was recorded.

The balance of apples for Romania, in 2018, registered negative values - 46,875 thousand Euro, exports worth 1,935 thousand Euro and imports worth 48,810 thousand Euro (DG Agri, ITC). Being part of the Development Region with the largest production of apples, Bihor county must exploit its potential.

## CONCLUSIONS

The main trends in the production and marketing of apples in Bihor County during 2014-2018 were:

- the highest number of apple trees was 644,498 (2015), and the lowest number was recorded in 2014 (616,169 apple trees);
- the highest apple production at Bihor County level was 20,768 tons (2014) and in 2016, the smallest - 12,124 tons.
- 19 kilograms/tree was average apple production, in 2016 and in 2014, the highest average apple production ( $34 \mathrm{~kg} /$ tree) was achieved.
- $3.21 \mathrm{lei} / \mathrm{kg}$ was the highest average annual prices of apples, sold in the agri-food markets, in the Bihor County during 2014-2018.
Romanians consumed a smaller quantity of apples compared to other states and yet, the balance of apples in 2018 had negative values.


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