
FRUIT MARKET ANALYSIS

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Abstract

The aim of this paper is to analyse the fruit market in Romania between 2014-2018 and to highlight the main phenomenon that characterize this market. According to the European Commission, a greater consumption of fruits would be achieved if school fruit schemes would be implemented. This scheme aims to promote fruit and vegetable consumption by children. In this context, support is also given to free distribution of fruit and vegetables to schools, hospitals and charities. Moreover, national authorities must take all the necessary steps to facilitate contact and cooperation between the economic agents that have been approved to receive free products. In other words, the paper presents the main trends on the fruit market such as the Total resource dynamics, Evolution of expenditure for fruit / inhabitant / month, Evolution of fruit consumption / inhabitant / month or The evolution of foreign trade. For the literature review it was used VOSViewer software, that analyses the bibliometric links created between authors, countries or organizations from a certain field.

Keywords: *fruits, bidimensional analysis, supply, demand*

I. Review of the scientific literature

In this chapter a bibliometric analysis was conducted in the field of fruit market. Thus, approximately 2000 documents from the Scopus database, published between 2000-2019, were analyzed (Chirescu, 2020). The figure below shows the analysis of the collaboration relations between the states.

Co-autorship between states

Fig.1

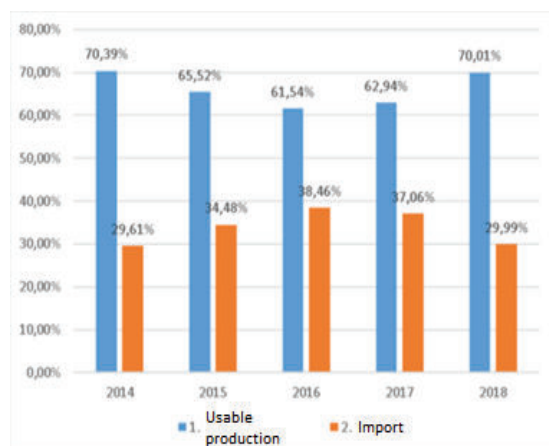


Source: own conceptualization based on Scopus database

The analysis was conducted for 63 states. On the first place, in terms of the number of fruit market cooperation relations is China with 43 links and 644 published documents. On second place is the United States with 48 collaboration links and 227 published documents. In the analysis, Romania can also be identified with 8 collaboration links and 5 published documents. Thereafter, the keywords used by the authors in the research papers on the established topic are analyzed.

Total resource dynamics

Fig.3.1.1

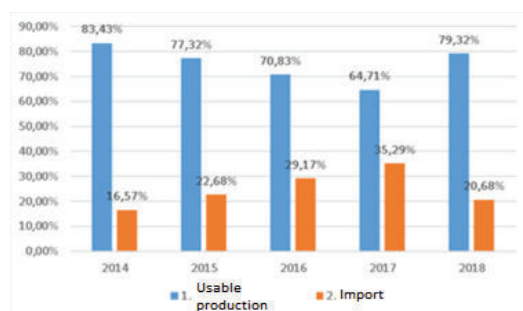


Source: Food Balances 2014-2018, INS

Both domestic production and imports remained at around the same value during the considered period. Thus, the usable fruit production is about 70%. The figure below shows the structure of total apple resources.

Total resource dynamics for apple

Fig.3.1.2

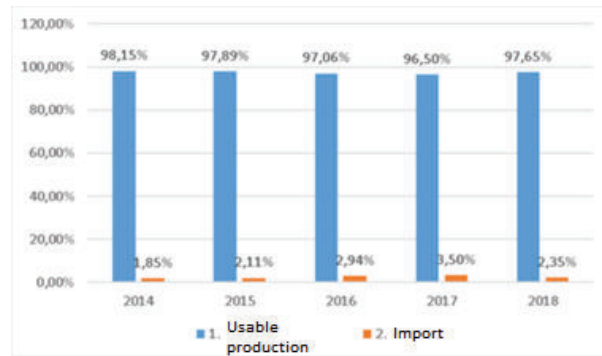


Source: Food Balances 2014-2018, INS

The usable production of apples experienced a downward trend, respectively a decrease of about 4.1 pp, which means that imports increased by the same value. The dynamics of total plum resources are presented below.

Total resource dynamics for plums

Fig.3.1.3

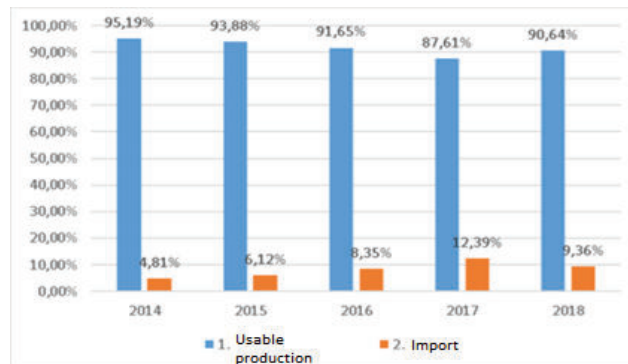


Source: Food Balances 2014-2018, INS

Domestic plum production is about 97% and imports approximately 3%, which means that plums have the highest self-sufficiency rate in the fruit category. Figure 4 shows the evolution of total cherry and sour cherry resources.

Total resource dynamics for cherries and sour cherries

Fig.3.1.4

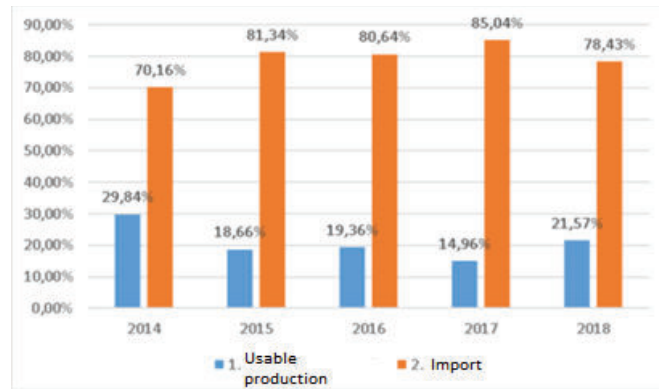


Source: Food Balances 2014-2018, INS

The usable production registered a downward trend in the analyzed period, respectively a decrease of approximately 5 p.p. In terms of imports, values have increased by approximately 5 p.p. The graph below shows the dynamics of total peach and nectarine resources.

Total resource dynamics for peaches and nectarines

Fig.3.1.5

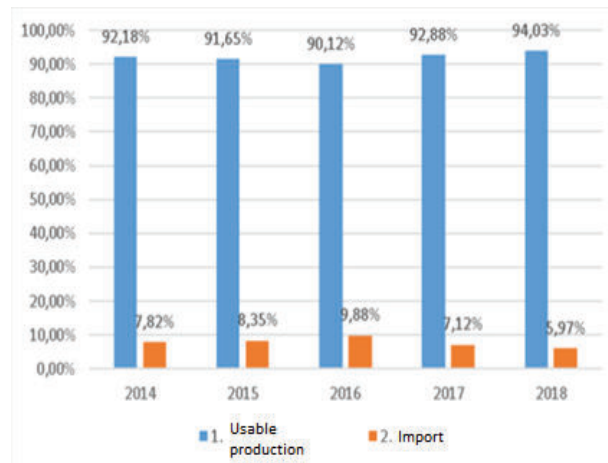


Source: Food Balances 2014-2018, INS

Usable production was low, respectively approximatively 20% of total peach and nectarine resources, which means that imports for this category of fruit represent around 80% of total resources. Last but not least, the dynamics of total grape resources are presented in the graph below.

Total resource dynamics for grapes

Fig.3.1.6



Source: Food Balances 2014-2018, INS

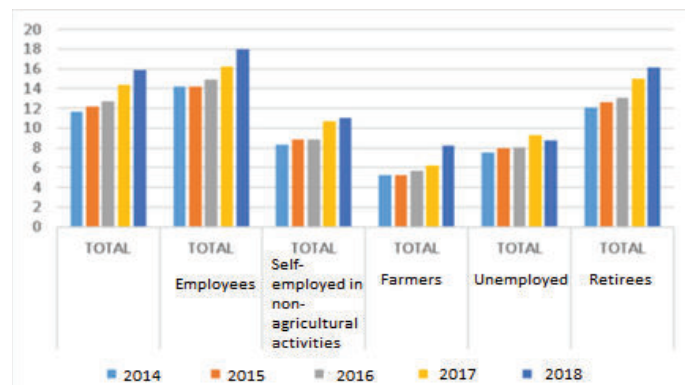
It is noted that about 95% of the total grape resources come from domestic production and about 5% from imports.

3.2 Analysis of the demand on the fruit market

This subchapter will analyze the expenditure on fruit and the consumption of fruit per capita per month.

Evolution of expenses for fruits / inhabitant / month, lei / inhabitant / month

Fig.3.2.1

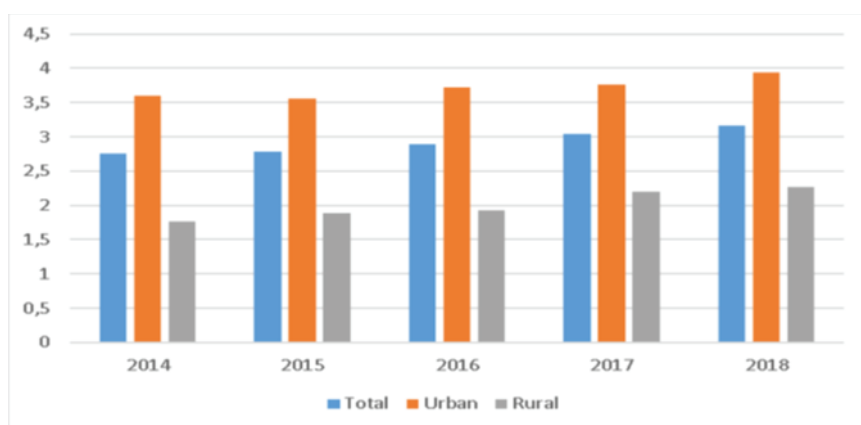


Source: Tempo Online

Expenditures for fruits registered an upward trend in the period 2014-2018. Thus, in 2018, employees were the ones who spent the most to buy fruit. The following analysis presents the evolution of fruit consumption in Romania during 2014-2018.

Evolution of fruit consumption / inhabitant / month, kg / inhabitant / month

Fig.3.2.2



Source: Tempo Online

Fruit consumption / inhabitant / month increased by approximately the same percentage in both rural and urban areas, respectively by 0.6 kg / inhabitant / month.

3.3 Analysis of foreign trade in the fruit market

This chapter will analyze foreign trade for the main categories of fruit and establish the level of trade balance.

Evolution of foreign trade for fruit products, tons

Table 1

Fruits	2014	2015	2016	2017	2018	2018/2014
Export	112.738	115.073	100.320	88.912	98.384	87,21%
Import	877.083	1.049.491	1.236.462	1.251.362	1.266.777	144,43%
Trade balance	-764.325	-934.418	-1.136.142	-1.162.450	-1.168.453	152,87%

Source: Food balances, 2015-2018, INS

It is noted that the export of fruits and fruit products decreased by approximately 13%, and imports increased by 44% from 2014 to 2018. The trade balance is negative during the analyzed period. The following table presents the evolution of the foreign trade for apples.

Evolution of foreign trade for apples, tons

Table 2

Apples	2014	2015	2016	2017	2018	2018/2014
Export	38.222	53.373	32.752	20.180	37.937	99,25%
Import	101.900	137.679	192.446	190.167	167.818	164,69%
Trade balance	-63.678	-84.306	-159.694	-169.987	-129.881	203,97%

Source: Food balances, 2015-2018, INS

Imports for apples increased by 65% during the analyzed period, and the trade balance remained negative throughout the period. The table below shows the analysis of the foreign trade in plums.

Evolution of foreign trade for plums, tons

Table 3

Plums	2014	2015	2016	2017	2018	2018/2014
Export	403	563	903	1.151	419	103,97%
Import	9.310	10.302	15.521	16.150	20.259	217,6%
Trade balance	-8.907	-9.739	-14.618	-14.999	-19.840	222,75%

Source: Food balances, 2015-2018, INS

The import of plums doubled during the analyzed period, while the export increased by 4%. Last but not least, the trade balance is negative. Next, the analysis of foreign trade for cherries and sour cherries will be presented.

Evolution of foreign trade for cherries and sour cherries, tons

Table 4

Cherries and sour cherries	2014	2015	2016	2017	2018	2018/2014
Export	3.597	4.914	3.861	4.441	4.440	123,44%
Import	4.183	4.840	6.724	8.270	9.379	224,22%
Trade balance	-586	74	-2.863	-3.829	-4.939	842,83%

Source: Food balances, 2015-2018, INS

In regards to foreign trade for cherries and sour cherries, it was found out that imports doubled during the considered period, while exports increased by 24%. The trade balance was negative, besides of the year 2015. Table 5 shows the evolution of foreign trade for peaches and nectarines.

Evolution of foreign trade for peaches and nectarines, tons

Table 5

Peaches and nectarines	2014	2015	2016	2017	2018	2018/2014
Export	278	552	80	224	291	104,68%
Import	58.112	93.443	98.527	109.932	82.271	141,57%
Trade balance	-57.834	-92.891	-98.447	-109.708	-81.980	141,75%

Source: Food balances, 2015-2018, INS

In the period 2014-2018, the import of peaches and nectarines increased by 42%, while the export increased by 5%. The trade balance is negative in all the analyzed years. Last but not least, the analysis of the foreign trade for grapes is presented.

Evolution of foreign trade for grapes, tons

Table 6

Grapes	2014	2015	2016	2017	2018	2018/2014
Export	723	978	3.248	4.951	9.078	1255,6%
Import	66.454	72.804	80.762	81.773	72.703	109,4%
Trade balance	-65.731	-71.826	-77.514	-76.822	-63.625	96,8%

Source: Food balances, 2015-2018, INS

The export of grapes increased considerably in the period 2014-2018, respectively by 1255%. Imports increased by 9.4% and the trade balance is negative.

Conclusions

The aim of this paper was to analyse the main trends that characterized the fruit market from Romania between 2014-2018. Following the study, it was found that the highest value of imports was recorded for peaches and nectarines, respectively approximatively 80% in the analyzed period. In terms of the value of usable production, the highest level was recorded for plums, 95%. Last but not least, through the bibliometric analysis, was highlighted the scientific interest for the fruit market, both globally and nationally, being established the main links of collaboration between states. In this context, the most active state in terms of fruit research is China, with 43 collaborative links and 644 published documents. By following the results of this study, one could identify ways to increase fruit consumption, but also ways to increase

the rate of food self-sufficiency for this segment. Thereby, the European Commission's proposal to introduce the School Fruit Scheme is a reliable alternative in the current context.

References

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