

Analysis of Romania's Foreign Trade in Fruit

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Abstract:- The present research aims at analysing Romania's foreign trade in fruit at both national and county (NUTS3) level. This analysis can determine the competitiveness and potential that this country has in relation to fruit trade. For this analysis, statistical data taken from international databases (International Trade Centre) on the value of fruit imports and exports were used, and these data were subjected to both quantitative and qualitative analyses. The result presents the overall picture of Romania, both in general and at county level, in terms of the fruit trade balance, as well as the counties with a surplus.

Keywords:- Foreign Trade In Fruit; Romania; County Analysis - NUTS3; Fruit Trade Balance.

I. INTRODUCTION (HEADING 1)

Fruits are a part of human food intake because they are very rich in vitamins, minerals, fiber, energy and a few proteins and fats. For this reason, their consumption is healthy and recommended for a balanced diet. More than 400 g fruits and vegetables are recommended to be consumed every day [1].

The Romanian fruit market features a wide variety of fruits, and a great seasonality, leading to a different demand according to the season. It also features a high level of fruit perishability and self-consumption. The high level of self-consumption is due to the lack of storage facilities owned by the manufacturers and the high number of populations living in the rural area.

The fruit quantity obtained at the national level is not enough and does not always meet the quality requirements, so that the buyers are caused to prefer imported fruits, leading to the diminishing of Romanian farmers' income and, implicitly, adversely affecting the national economy [2].

The pedo-climatic conditions of Romania offer the possibility of cultivating many species of trees and shrubs, starting from the plain area to areas with altitudes of about 1000 m. Nowadays, fruit consumption tends to ascend, in the context in which more and more health promotion is promoted, encouraging fruit and vegetable consumption, but still below the European average. The situation of the fruit farms has suffered a drastic decrease, so that in the last 20

years Romania has become almost exclusively dependent on the fruits brought from the intra-Community and extra-community countries. At present, our country uses apples from Poland, Turkey pears, apricots and nectarines from Greece and Italy, mainly due to high production costs compared to low sales prices [3].

The fruit and vegetable sector in Romania is characterized by a relatively high potential, both in terms of surfaces that can be attracted in the agricultural circuit, but also due to the potential to develop ecological agriculture [4].

In Romania, trade in fruits may represent an important part of the trade in agricultural products considering the geographical position, favourable climate conditions, fruit growing tradition, as well as the existence of some producing varieties created in the research stations that would determine better living conditions for the Romanian farmers.

II. MATERIAL AND METHOD

The study analyses the dynamics of trade flows of edible fruits at national and county level by analysing the export and import of fruit in terms of quantity. The research method used is the quantitative one, which is based on the statistical data provided by the National Institute of Statistics (INS). Also, as a research method, the complex approach to the topic was used by studying previous research carried out by various authors in the field of agriculture and agrarian economics, for this purpose the Enformation and Google Scholar websites were accessed. The statistical research process included the following steps: downloading the data, processing the data and analysing and interpreting the results.

III. RESULTS AND DISCUSSION

To determine the potential of Romanian fruit production and sales, a national and county level export, import and trade balance analysis was carried out for the eighth part of the combined nomenclature, namely: 08. Edible fruits.

A. Export

Romania's total exports of fruit ranged from €54 million in 2014 to €99.15 million in 2021. The average annual value of this indicator in the period 2011-2021 was 75.22 million euros.

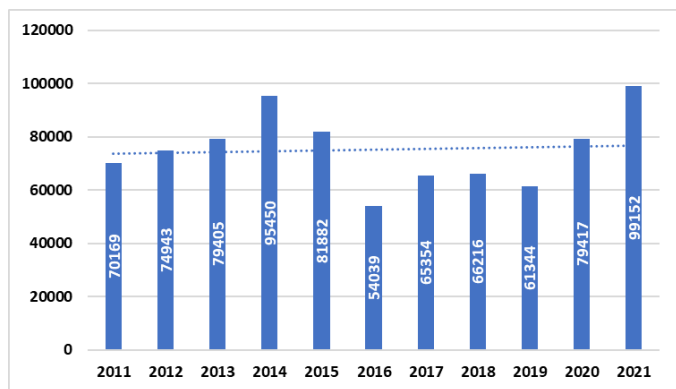


Fig 1:- Dynamics of total fruit exports, 2011-2021 (€ thousand)

As can be seen from the figure above, the dynamics of total exports are oscillating, depending on needs and stocks created, and overall, there is a constant trend of evolution. Although the annual average of exports was previously established, there is a standard deviation from this average of 13.8 million euro during this period, which results in a variation of ± 18.4%. Returning to the trend, the graph shows a constant situation, validated by the average annual growth rate of 3.5%.

Analysing by counties, according to Table 1, the county with the highest export was Bucharest in 2011, with a meat export value of 10.3 million euros, increasing to 17.58 million euros in 2021. In the period 2020-2021, Timis county was the county with the highest export values, with the maximum in 2021 of almost 18.2 million euros. At the opposite pole, according to fruit exports, is Mehedinți county with values ranging from 2 to 17 thousand euros annually.

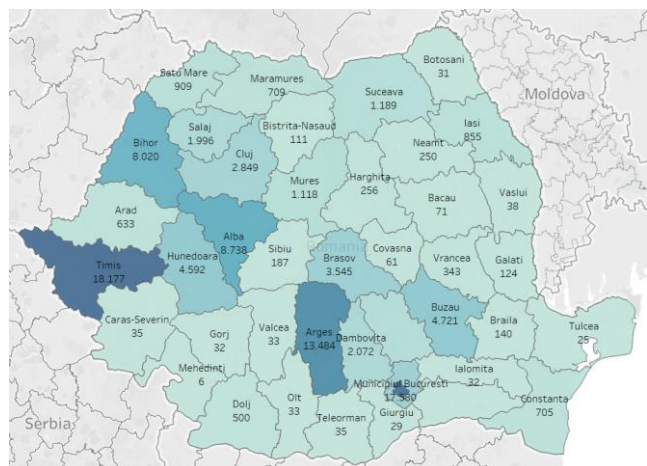


Fig 2:- Value of fruit exports in 2021 (€ thousand)

In 2021, as mentioned above, the first county in terms of the value of meat exports was Timis with about 18.17 million euros, followed by Mun. Bucharest (17.58 million euro), Argeș (13.5 million euro), Alba (8.7 million euro) and Bihor (8 million euro).

The last five counties were Botoșani (31 thousand euro), Giurgiu (29 thousand euro), Tulcea (25 thousand euro), Călărași (19 thousand euro) and Mehedinți (6 thousand euro).

In 2021, as can be seen, the largest share was held by Timis County, with a contribution to total fruit exports of 18.3%, followed by Mun. Bucharest (17.7%), Argeș (13.6%), Alba (8.8%) and Bihor with (8.1%).

B. Import

Romania's total fruit imports ranged from €185.4 million in 2011 to around €765 million in 2021. The average annual value of this indicator in the period 2011-2021 was 500 million euro.

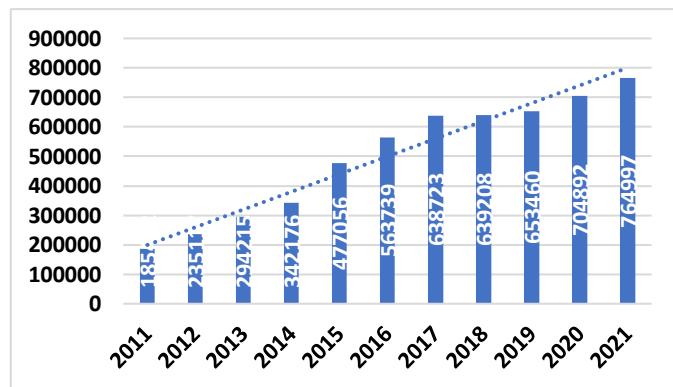


Fig 3:- Dynamics of total fruit imports, 2011-2021 (€ thousand)

As can be seen from the figure above, the dynamics of total imports are increasing, depending on the needs and stocks created. Compared to the previously established average, i.e. the annual average of imports, there is a standard deviation from this average of 203.8 million euro in the period under review, which results in a variation of ± 40.8%. Returning to the trend, the graph shows a strictly upward trend in imports, which is also validated by the average annual growth rate of 15.22%.

Analysing by counties, according to Table 2, the county that recorded the highest imports was Ilfov in 2011, importing 94.4 million euros, but then, in the last year, it reached an import value of 198.1 million euros, with an increase of 2.1 times. At the opposite pole, in terms of fruit imports, the counties of Vrancea and Mehedinți were at the bottom, with import values ranging between 33 and 189 thousand euros per year, so even though exports are low in Mehedinți, imports are also low, as it is a county that does not record foreign trade in this fruit category.

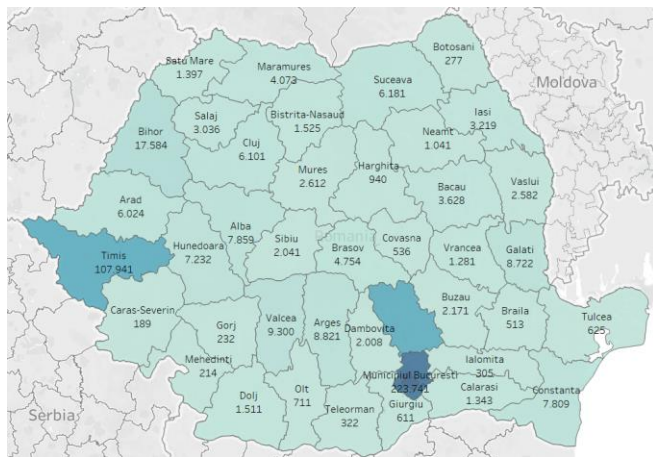


Fig 4:- Value of fruit imports in 2021 (€ thousand)

In 2021, as mentioned above, the first county in terms of the value of fruit imports was Bucharest with about 223.7

million euros, followed by Ilfov (198.13 million euros), Timis (107.9 million euros), Prahova (105.8 million euros) and Bihor (17.5 million euros).

The last five counties were Ialomița (305 thousand euro), Botoşani (277 thousand euro), Gorj (232 thousand euro), Mehedinți (214 thousand euro) and Caraș-Severin (189 thousand euro).

In 2021, as can be seen, the largest share was held by the Municipality of Bucharest, with a contribution to total meat imports of 29.2%, followed by Ilfov County (25.9%), Timis (14.1%), Prahova (13.8%) and Bihor (2.3%).

C. Trade balance

The fruit trade balance shows a deficit in each year analysed, ranging from € 665.8 million in 2021 to € 115.2 million in 2011. The average annual value of this indicator over the period 2011-2021 was -424.7 million euro.

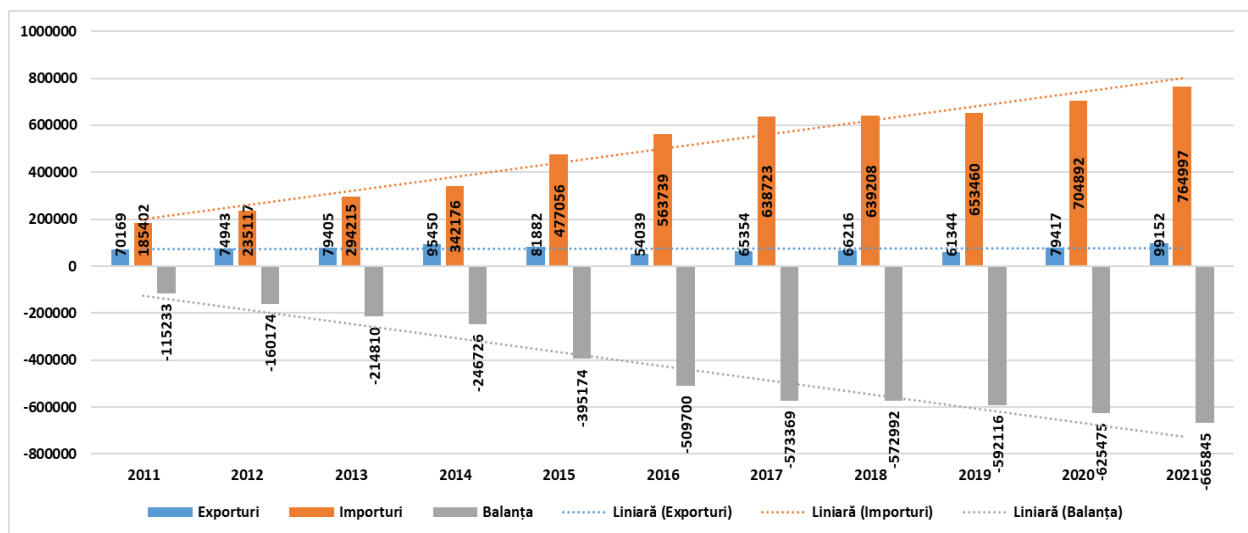


Fig 5:- Romania's trade balance for fruit (thousand euro)

As previously established, the value of exports has shown a somewhat constant trend, while the value of imports has shown a strictly upward trend, the annual growth rates being much different, for exports an annual rate of 3.51% and for imports a rate of 15.22%; at the same time, the average value of imports being about 6.65 times higher than the average of exports, it can be determined that the gap between imports and exports is constantly increasing, i.e. a trade balance increasingly in deficit.

While in 2011 the balance of payments was -115.2 million euros, in the last year it was about 5.77 times higher, reaching a deficit of 665.8 million euros, with an average annual rate of 19.2%.

Analysing by counties, according to Table 3, there are counties where there is a trade balance surplus, existing in 20 of the 42 counties analysed for at least one time. As for the counties with the highest surplus, the situation is similar to the one where the export values were analysed, i.e. at the

beginning of the period, Argeş county recorded the highest surplus (4.66 million euro), then Buzău county took the second position, recording a surplus in the last year of 2.55 million euro. At the other end of the scale, the Municipality of Bucharest ranked last, with the largest deficit in each year of the eleven analysed, ranging from 206.1 million euro (in 2011) to 20.5 million euro (in 2021).

It should also be noted that there are counties with a tradition for this product, which recorded positive values of the trade balance throughout the period analysed, or in most of the years analysed, namely: Argeş and Buzău (surplus in every year); Satu Mare, Alba (surplus in 10 of the 11 years analysed) and Vrancea (surplus in 9 of the 11 years analysed).

In 2021, there were four counties that recorded a trade balance surplus for fruit, namely Argeş (4.66 million euros), Buzău (2.55 million euros), Alba (879 thousand euros) and Covasna (64 thousand euros), the rest of the 38 counties recorded a deficit.

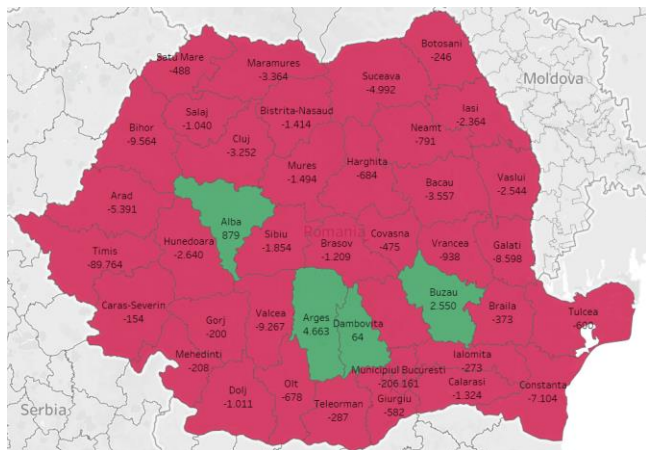


Fig 6:- Territorial distribution of counties with surplus in the fruit trade balance in 2021

As can be seen, the four counties with a surplus in the trade balance for foreign trade in fruit are in three development regions: the South region (with Argeş and Dâmbovița counties), the Centre region (with Alba County) and the South-East region (with Buzău county).

However, to create an overall picture, it is considered appropriate to rank the counties according to the average trade balance surplus for the whole period analysed.

On average, during the period 2011-2021, there were 9 counties that recorded a trade balance surplus for fruit, respectively: Argeş (5.9 million euros), Arad (2.47 million euros), Buzău (1.68 million euros), Satu Mare (1.56 million euros), Alba (1.3 million euros), Botoşani (1.03 million euros), Vrancea (539 thousand euros), Gorj (198 thousand euros) and Brăila (3.45 thousand euros), with the remaining 33 counties recording a deficit.

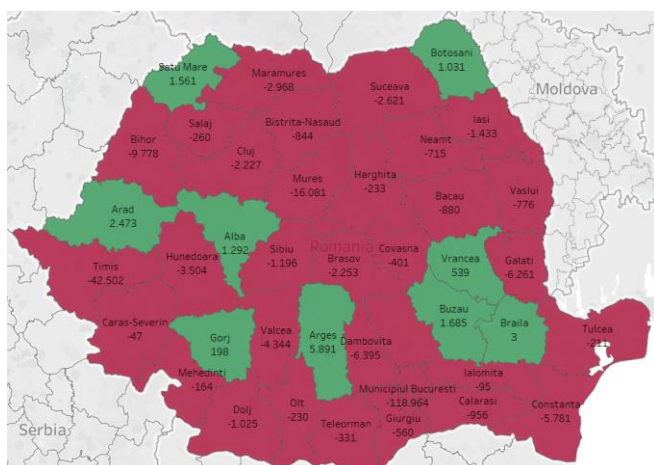


Fig 7:- Territorial distribution of counties according to the average balance of trade result for fruit, 2011-2021 (thousands of euros)

As can be seen, the 9 counties with a surplus in the balance of trade in fruit are found in seven development regions, namely: the South-East region (with Buzău, Brăila and Vrancea counties), the West region (with Arad county),

the South region (with Argeş county), the North-East region (with Botoşani county), the Centre region (with Alba county), the North-West region (with Satu Mare county) and the South-West Oltenia region, with Gorj county.

IV. CONCLUSIONS

Analysing Romania's foreign trade in fruit, both at national and county level, the research concluded the following.

The dynamics of total fruit exports fluctuate quite a lot from one year to the next, and these variations do not show a clear trend, but rather a stagnation of exports. Analysed at county level, fruit exports predominate in counties with a tradition of fruit production (nurseries and orchards), but also in counties on the western border of the country, closer to the West, where the distance is shorter.

As for Romania's fruit imports, they show a strictly upward trend, given the constant demand throughout the year, and their seasonality and perishability [5], which means that supply does not ensure demand. On the other hand, as the standard of living has risen between 2015 and 2019 [6], it can be considered that consumption has also increased, thus the need for imports has become increasingly greater. At the county level, the highest imports are recorded in the areas with the highest population, which confirms the hypothesis described above.

Given the tendency of exports to be almost constant and the exponential growth of imports, when the trade balance was determined, it was possible to observe a deepening of the trade balance, i.e. an increasing deficit, reaching its peak in the last year. Analysing for this last year, the balance of trade for each county it can be seen that there were only four counties where there was a surplus, the rest were in deficit. A similar analysis, but for the whole period under review, shows that there are nine counties with a positive trade balance.

Finally, it can be appreciated that the situation of Romania's foreign trade in fruit is at a standstill, given the continuous demand for fruit, and the rather low production, subject to the characteristics of seasonality and perishability, as well as the lack of storage facilities [7] leads to this situation in which most counties have a deficit in the trade balance.

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