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STUDY REGARDING SUPPLY AND DEMAND OF TOMATOES IN ROMANIA (2009-2011)

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Abstract

Tomatoes are one of the most important vegetable crops in Romania, at least through the related areas (about 47,000 hectares). In these circumstances Romania has a high production potential (over 700,000 t), which potentially can be improved by applying appropriate measures conducive to productive performance increase per unit - hectare. Regarding the period 2009-2011 it is clear that national food balance sheet is uniform (supply equals demand). Within total supply, it is noted that imports exceed exports significantly and is no mention of stocks. At the level of total demand, is distinguished as components only the human food and losses.

Key words**:** *import, export, supply, food, losses, total demand*

INTRODUCTION

Vegetables grown in the open, industrial greenhouses, solar and other shelters, are important for food, industrial, factor of intensifying land use and utilization of labor resources, fodder, export and source of profit [1].

On the tomato fruit is consumed harvested at physiological maturity, and before full ripening, so-called green tomatoes, but in very limited extent and only in some countries, especially in the Balkan [7].

Agricultural commodity demand is dispersed and irregular quantitatively. The demand for first necessity food is less elastic in relation to prevailing market prices [2].

When referring to the constitution of the production, we should note the influences of areas planted and average yields. In Romania the average yields per hectare of vegetables was worth around half the yields of Western European countries. As a result, the total vegetable production followed the same trend as the area under cultivation. The surface cultivated with vegetables is fluctuating, among others marked the perishability of those products that prevent and stabilization of cultivated areas [9].

Consumer Act can be considered as a measure of destruction (in the category "sustainable fungible good or good"), or purchase of property. As the general form is best time to purchase a commodity and it is less important whether the purchased product is used or not [8].

Eating tomatoes is under the influence of the phenomenon perishable items. Knowing the demand is considered a necessity for farmers and processors through this process may be schedule submitted quantitative and qualitative production, and a rhythm that can partially mitigate the seasonality [3].

MATERIALS AND METHODS

In order to highlight the specific situation relating to the supply and demand of tomatoes were used information extracted from the FAO website [10].

Formation of total supply, has gone from data for domestic production, imports and stocks while the total demand was carried summing quantities relating to food and losses. For Romania, unlike other state or regional entities, not included data on stocks, food consumption the seeds, raw materials and other non-food uses.

The research supply can be achieved both in profile static (looking at the situation at a given time) and in profile dynamic (this date being investigated mutations that occur in size

and physiognomy tender, its distribution space and links trade) [6].
In a certain period of time, the demand for a good can reduce or increase [4].
Following the above issues related to supply and demand, the analysis method used is the comparison while pursuing the dynamic evolution of the phenomenon for some time, and highlights the deviations to the terms of reference being operated [5]. In addition to the years 2009, 2010 and 2011 series includes dynamic the average period to give a more comprehensive of the study published.

RESULTS AND DISCUSSIONS

Table 1 presents the components of total supply and total demand nationwide for 2009-2011.
For 2009 it can be seen that the balance sheet was a balanced supply with demand being equal - 907,468 t. Offer is based on the following components: production 755,596 t (83.26%), imports 156,557 t (17.26%), 4,685 t exports (-0.52%). Total demand contributed to the establishment: losses - 24,000 t (2.64%) and food consumption - 883,468 t (97.36%).

Table 1. National balance sheet structure (t)

No.	Specification	YEAR						Average 2009-2011	
		2009		2010		2011			
		Eff *	Str. % **	Eff *	Str. % **	Eff *	Str. % **	Eff *	Str. % **
1	Production	755,596	83.26	768,532	79.31	910,978	85.47	811,702	82.76
2	Import	156,557	17.26	203,550	21.00	158,275	14.85	172,794	17.62
3	Export	4,685	-0.52	3,000	-0.31	3,427	-0.32	3,704	-0.38
4	Total offer	907,468	100	969,082	100	1,065,826	100	980,792	100
5	Food	883,468	97.36	944,082	97.42	1,036,826	97.28	954,792	97.35
6	Loses	24,000	2.64	25,000	2.58	29,000	2.72	26,000	2.65
7	Total demand	907,468	100	969,082	100	1,065,826	100	980,792	100
8	Balance sheet	0	-	0	-	0	-	0	-

*http://faostat3.fao.org/download/FB/BC/F
** own calculation

In 2010, the total supply was 969,082 t at which components had the following percentage rates of participation: 79.31% production (768,532 t), 21.0% imports (203,550 t) -0.31% exports (3,000 t). Total demand was equal to the offer presenting as components the following: losses - 25,000 t (2.58%), and food consumption - 944,082 t (97.42%).
In the case of 2011 appears an equilibrium between total supply and total demand, each indicator reaching 1,065,826 t. In order to establish total supply, acted: production - 910,978 t (85.47%), import - 158,275 t (14.85%) and exports - 3,427 t (-0.32%). Formation of total demand for tomatoes is based on, variable quantities of product used as: loss - 29,000 t (2.72%) and food consumption - 1,036,826 t (97.28%).
Determining the average period analyzed, there is an equal balance of tomatoes. This offer starts from a total of 980,792 t, which had the following structure (Fig. 1): 82.76% production (811,702 t), 17.62% imports (172,794 t), -0.38% exports (3,704 t).
Total demand reached 980,792 t, thus presenting its structure (Fig. 2) 2.65% loss (26,000 t), 97.35% food (954,792 t).

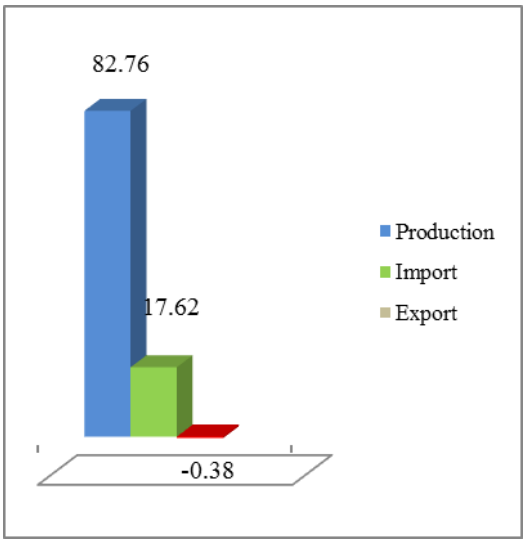

Fig. 1. National total supply - structure, period average (%)

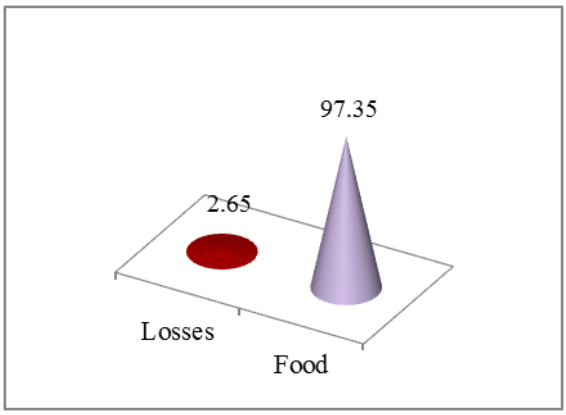

Fig. 2. National total demand - structure, period average (%)

Table 2 shows the dynamics of balance sheet components for tomatoes.

Production increased by 1.71% in 2010 compared with 2009, a trend that was maintained in 2011 (+20.56 and +18.53% respectively reporting to the bases). Average period was superior the first base of reporting 7.42%, but was lower than the second with 10.90%.

Regarding the imports can be observed their progress uneven. Thus, there are increases in 2010 compared to 2009 (+30.02%), and decreases in 2011 (-22.24%) compared to the previous period of dynamic series. The average of the period surpasses both reporting bases of 1.10 and 1.09 times respectively.

Romanian exports of tomatoes evolved somewhat similarly to imports. It decreased in 2010 compared with 2009 by 35.97%, after which in 2011 exceeded the previous term of the dynamic series by 14.23%. For the average period reveals levels of the indices above par on mobile base (1.08 outrunning the reporting base) and subunit levels for those with fixed base (-20.94%).

In the case of total supply, there is an upward trend, specific increases in 2010 (+6.79%) compared to 2009, being followed by other increases in 2011 (+17.45 and +9.98% against the terms of reference). In these circumstances, period average has been above par compared to 2009 (+8.08%) and below par compared to 2011 (-7.98%).

Table 2. Dynamics of the national balance sheet (2009-2011) *

No.	Specification	YEAR						Average 2009-2011	
		2009		2010		2011			
		I_{bf}	I_{bm}	I_{bf}	I_{bm}	I_{bf}	I_{bm}	I_{bf}	I_{bm}
1	Production	100	100	101.71	101.71	120.56	118.53	107.42	89.10
2	Import	100	100	130.02	130.02	101.10	77.76	110.37	109.17
3	Export	100	100	64.03	64.03	73.15	114.23	79.06	108.08
4	Total offer	100	100	106.79	106.79	117.45	109.98	108.08	92.02
5	Food	100	100	106.86	106.86	117.36	109.82	108.07	92.09
6	Loses	100	100	104.17	104.17	120.83	116.0	108.33	89.66
7	Total demand	100	100	106.79	106.79	117.45	109.98	108.08	92.02

* own calculations

At the level of consumption it is worth mentioning ascendant trend and successive annual increases of 1.06 times recorded in 2010 and 1.09 times in 2011.

Regarding of losses, is pointed the strictly upward evolving. In the years 2010 and 2011 occurred exceedances of the reporting bases of 1.04, 1.20 and 1.16 times respectively. The average period has known values above for indications with fixed base (108.33%) and subunit values for mobile base indications (89.66%).

Regarding the total demand dynamics reveals similar trend of total supply, this being determined by the similarity between the values of two indicators - for all the terms of dynamic series.

CONCLUSIONS

The study led to the following conclusions:

- in terms of components of balance it is worth to mention the different situation from that global one, but closer to the European one. Within total production, supply predominates (82.76%), but it is worth also the share of imports (17.62%). The total supply (980,792 t) is 4.28% compared to European indicator and 0.65% of the indicator in the world;

- total demand keeps weights contribution to global also continental, as in the total supply. Like global and continental, also in Romania the demand structure is dominated by food consumption (97.35% - outweigh the retrieved globally and continental);
- the vast majority of balance sheet items have a strictly upward trend (production, total supply, food consumption, losses and total demand), while others show uneven developments (import and export);
- for Romania would need the superior noted the existing potential for growing tomatoes and better management components of total demand.

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