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TOMATOES BALANCE SHEET IN ROMANIA

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Abstract

Tomatoes are one of the most representative vegetable species cultivated in our country. This allegation is based on the essential elements of tomatoes culture respectively area cultivated, total production and average yield per hectare - indicators for 2007-2009 reached average levels of 48.8 thousand hectares and 736.9 thousand tonnes respectively 15101kg / ha. Presentation of food helps establish balance of the demand and supply component parts total as follows: production, imports, exports (on request) food consumption and losses (on request). It is worth noting that in Romania, unlike global and continental do not appear reports for stocks, industrial raw materials, feed consumption, and other uses. Based on the total volume of supply and demand it could be determining the national balance sheet for the product.

Key words**:** *consumption, demand food, export, import, losses, offer, tomato*

INTRODUCTION

Tomatoes are noteworthy because of their importance food industry, as an intensification factor for the use of land and labor resources, feed, export and as a source of profit [3]. Knowing the ratio existing on the market between supply and demand of a product is an essential element, defining, the relationship between the buying and selling market. When referring to the tomato appears the need to increase transiting speed (on the market), due to the perishable nature of the product and also problems related to storage (short or long term - controlled atmosphere storage), packaging and selling them effectively.

MATERIALS AND METHODS

Realization of the work is based on the anticipated documentation, using data published by the United Nations Food and Agriculture Organization (FAO) [4].
The offer on the commodity markets from agriculture is dispersed and irregular quantity. Production volume depends on the technical part of the equipment, on the other hand, climatic and biological conditions are random, printing these markets agricultural commodities, are highly mobile. Quantitative offer a retail product market depends primarily by the benefit that it will make the entrepreneur [1].
Formation of total supply has the following components: total production, imports, stocks and exports (expressed in natural units of measurement - thousand tons). Determining the level of total supply - according to FAO regulations, is considering adding the output of the level of imports and stocks, minus exports. If the stock is negative, it is subtracted from the sum total production and imports. It should be noted that for Romania, statistical reporting data do not refer to stocks.
Specificity food demand is materialized within the market through various forms of expression by the consumer. This can be referred to [2].:
- By mode of manifestation in time food demand can be distinguished current demand, periodic and rare;
- By the time evolution of food demand is constant demand, increasing and decreasing;
- For safety of food demand is highlights strong demand spontaneous and demand;
- According to the existence of the range of goods and fund on food demand there is an increase or decrease in consumer demand [3].

To establish the total demand are considering its following components: feed consumption, seeds, food consumption, raw materials, other uses, losses (in thousand tons).

According to FAO methodology, determining the overall level of demand is made by summing the above elements. In Romania total demand is made up only by food consumption and losses.

Establishing the effective balance takes into account the achievement difference between total supply and total demand.

In the case total supply and total demand, taking into account their components and their participation in setting the general level of the two indicators was established the percentage structure, distinct for both total supply and total demand.

Later processing of the data was performed by using time comparison method.

The data collected and analyzed, covers the period 2007-2009, are launched with the average period. Media was determined by computing the following equation:

$$A = \frac{X_1 + X_2 + \ldots + X_n}{n}$$

Based on the above, the dynamic series were built, where the first term automatically became a basis for comparison. Were used two types of indices with fixed base and mobile base for determining for which the methodology was as follows:

$$Fbi = \frac{X_n}{X_0} x100;$$

$$Mbi = \frac{X_n}{X_{n-1}} x100.$$

RESULTS AND DISCUSSIONS

In 2007, total supply was 838.1 thousand t, which contributed the production to 640.8 thousand t (76.5%), import 97.8 thousand t (23.6%) and export to 0, 5 thousand t (-0.1%). Total demand reached 838.1 thousand tons, a level at which contributed food - 810.1 thousand t (96.7%) and losses - 28.0 thousand tons (3.3%).

Under these conditions the balance is unitary, total supply is equal to total demand.

In 2008 the same situation is found balance between total supply and total demand. Therefore the 981.0 thousand tons for total supply were made by contributions quantitative variables of components, as follows: 814.4 thousand t the production - 83.0%, 168.1 thousand t import - 17, 1%, 1.4 thousand t export - 0.1%. For total demand structure is as follows: 97.1% food - 953.0 thousand tons, 2.9% losses - 28.0 thousand tons.

When referring to the situation of 2009 are based on the same state of balance between total supply and total demand (907.5 thousand t).

Production was 755.6 thousand t (83.3% in total supply structure) import owned 156.6 thousand t (17.2%), while exports recorded 4.7 thousand t (-0.5%).

For total demand prevails nutrition with a share of 96.9% or 879.5 thousand t, followed at a distance of losses 3.1% - 28.0 thousand tons.

Calculating the average period for balance sheet components, in addition to the balance between total supply and total demand (908.9 thousand tons each), it is noted that the total supply has a structure (Fig. 1.): production 81.0% (736.9 thousand t), 19.2% for imports (174.3 thousand tons), -0.2% in the export (2.2 thousand t).

Total demand has two components (Fig. 2.): 96.9% Food (880.9 thousand t), 3.1% loss (28.0 thousand tons).

Table 1. Tomatoes: National balance sheet structure-thousand tons (2007-2009) *

Crt No.	Specification	YEAR						Average 2007-2009	
		2007		2008		2009			
		Effective	%	Effective	%	Effective	%	Effective	%
1	Production	640,8	76,5	814,4	83,0	755,6	83,3	736,9	81,0
2	Import	197,8	23,6	168,1	17,1	156,6	17,2	174,3	19,2
3	Export	0,5	-0,1	1,4	-0,1	4,7	-0,5	2,2	-0,2
4	Total offer	838,1	100	981,0	100	907,5	100	908,9	100
5	Seeds	-	-	-	-	-	-	-	-
6	Food	810,1	96,7	953,0	97,1	879,5	96,9	880,9	96,9
7	Losses	28,0	3,3	28,0	2,9	28,0	3,1	28,0	3,1
8	Total demand	838,1	100	981,0	100	907,5	100	908,9	100
9	Balance sheet	0	-	0	-	0	-	0	-

*http://www.fao.org/

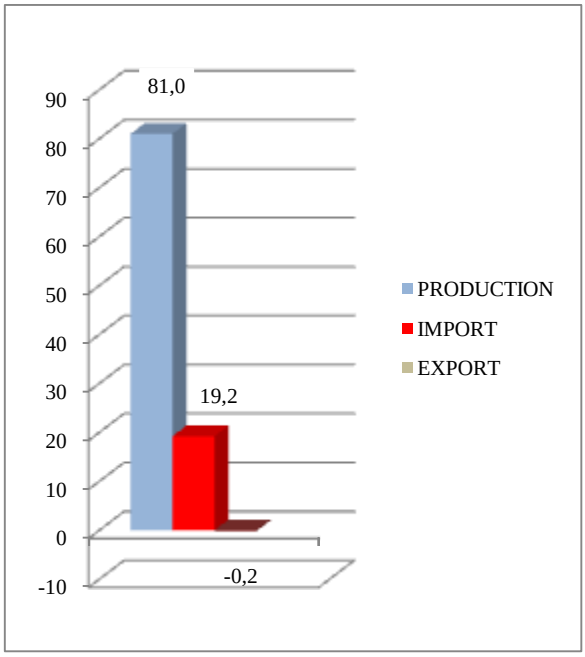

Fig. 1. Total supply - structure, period average (%)

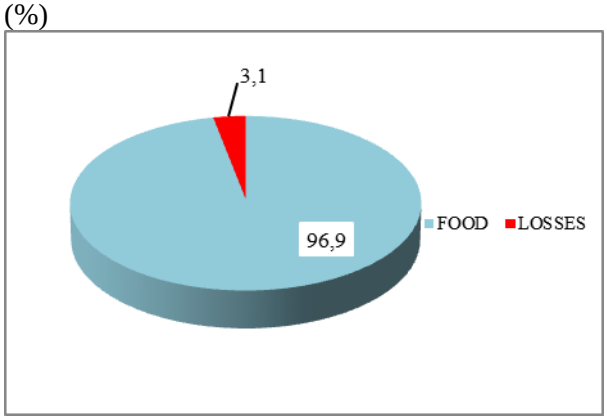

Fig. 2. Total demand - structure, period average (%)

Dynamics of elements of the national balance to the tomato is presented in Table 2.

Production has evolved unevenly, while increases occurred in 2008 (+27.1% compared to the first term of the dynamical series), followed by declines in 2009 (-7.2% compared to previous dynamic series + 17.9% compared with 2007). Average of the period is higher than the first bases of reporting by 15.0%, but is lower by 2.5% compared to the second.

Analyzing the evolution of imports can find their downward trend. Therefore the dynamics is dominated by subunit levels of of component indices, except for those with chain basis for the average period (111.3%). Decreases compared to bases of reference were: 15.0% in 2008, 20.8 and 6.8% for 2009, 11.9% of the average period.

Situation is convenient for exports, in terms of relative values specific to dynamics, but the absolute value is much room for better for producers in Romania. Indicator increased by 2.80 times in 2008 compared to 2007, of 9.40 and 3.35 times for 2009 compared with terms of reference. The average of the period has surpassed of 4.40 times the specific situation of 2007, but was lower by 53.2% compared with the previous term of dynamic series.

Table 2. Tomatoes: Dynamics of national balance sheet items (2007-2009)

Crt. No.	Specification	YEAR						Average 2007-2009	
		2007		2008		2009			
		F_{bi}	M_{bi}	F_{bi}	M_{bi}	F_{bi}	M_{bi}	F_{bi}	M_{bi}
1	Producție	100	100	127,1	127,1	117,9	92,8	115,0	97,5
2	Import	100	100	85,0	85,0	79,2	93,2	88,1	111,3
3	Export	100	100	280,0	280,0	940,0	335,7	440,0	46,8
4	Ofertă totală	100	100	117,1	117,1	108,3	92,5	108,5	100,2
5	Alimentație	100	100	117,6	117,6	108,6	92,3	108,7	100,2
6	Pierderi	100	100	100	100	100	100	100	100
7	Total demand	100	100	117,1	117,1	108,3	92,5	108,5	100,2

Total supply of tomatoes has an uneven evolution over time increases occurring in 2008 (+17.1% vs. 2007), are followed by decreases -7.5% for 2009 compared with the previous term of dynamic series). For both categories of indices period average exceeds the reporting period: +8.5% compared to 2007, +0.2% compared with 2009.

Of the components total demand stands out the food consumption uneven evolution. Therefore we have increases for it in 2008 compared to 2007 (+17.6%), the decreases for the year 2009 to 7.7% from the previous term of dynamic series (+8.6% up on the year 2007). Therefore the average of the period exceeds both bases of comparison with 8.7 and 0.2%.

In the case of losses are not recorded, according to statistics, any variation thereof, during the of dynamic series analysis (the dynamics index contains strictly equal values of components). Total demand is characterized by a sinuous evolution for the period 2007 to 2009. In 2008 are finds the base reporting advancing 1.17 times, and in 2009 the first is observed overcoming basis of comparison and a 8.3% decrease from the second baseline by 7.5%. Regarding the average of the period we have levels above unit of two categories of indices (with fixed base or chain) - 108.5 and 100.2%.

CONCLUSIONS

The total supply exports have a share almost insignificant, and production is the main constituent. Lack stocks may appear beneficial element, but at the same time and as warning to lack of a "buffer" in case of need.

In the total demand prevailing food consumption (96.9%), and losses have a low share (3.1%), convenient compared to continental and global situation (lower weight, in the structure of two or three times);

Romania has contributed to the establishment of world total supply and continental with weights of 0.51 and 4.09%, while in demand structure contributions were 0.64 and 4.08%;

Components of national balance of tomatoes have evolved various in time: imports were decreasing (beneficial aspect), exports showed upward trends (positive), production, total supply, food and total demand varied uneven, and the losses was constant (at least satisfactory aspect).

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