

## SELF-SUFFICIENCY IN THE ROMANIAN BEEF CONSUMPTION IN THE CONTEXT OF DOMESTIC SUPPLY RESTRUCTURING – TRENDS AND PROSPECTS

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**Abstract:** *The beef sector competitiveness in Romania is constrained by production fragmentation into small-sized farms, by the lack of capital for the access to the valuable genetic material, as well as by the high share of family consumption. The goal of the paper is to identify new opportunities for the Romanian beef consumption relaunching and to create availabilities for export from the perspective of domestic supply restructuring, having in view the new Common Agricultural Policy (2014-2020). The obtained results with regard to the increase of self-sufficiency in beef, on the basis of scenarios, was based on technical analyses, statistical calculations (average annual growth rate) and production, import and export forecasts. The conclusions reveal that domestic production relaunching can be possible following the support measures of the sector provided for in the new NRDP.*

**Key words:** *beef consumption, self-sufficiency, production*

### INTRODUCTION

The beef and young beef meat does not represent exactly a traditional Romanian product and that is why only 15-16% of the total quantity of consumed meat makes part of this category, the bovines' raising being linked especially to the milk and dairy products' obtention. Nevertheless, having in view that around 35% of the bovines' livestock in Romania are of Simmental type – very suited for the meat production – the future of the bovine meat sector seems to have good perspectives, the beef meat having the greatest potential to increase from all the other meat sorts, the consumption increase, taking place, though, step by step, on the way of incomes' increase and that of education regarding food [2].

### PREVIOUS STUDIES AND METHODS

The method used for the elaboration of scenarios regarding the increase of the self-sufficiency degree at the beef meat, had at its basis statistical calculations regarding the annual average rhythm of increase, the rate of rise and the dynamics index of the utilizable production, of import and export of bovine meat in fresh meat equivalent, as well as prognoses for production, import and export, having as datasource, the publications of the National Statistics Institute – Food Balances, Availabilities of Population's consumption, 2007-2014

### RESEARCH RESULTS AND DISCUSSIONS

The alternative of the raise of meat cattle is considered by the specialists as being an immediate source of income for those who cannot realize a milk conforming with the European norms, mainly in the context of milk quotas' elimination starting with the year 2015 [1]. The development of the sector for bovines' raising for meat represents a market opportunity, with real export chances. Obviously, we cannot speak as yet about a market of the bovine meat in Romania, to ensure the constant and profitable absorption as price of

the premium meat produced internally, but the demand from the external is sufficient for the Romanian farmers to start investments in the meat farms.

From this perspective, we proposed ourselves, the assessment of the self-sufficiency increase on basis of some scenarios and the creation of export availabilities, starting from the analysis of the present situation (2007-2013), having in view methodological hypotheses which will be presented in the followings.

**The basic scenario is assessing, first,** the present situation regarding the evolution of the production of bovine meat, of the import and export in fresh meat equivalent, of the available for supply, of the consumption available and of the self-sufficiency, in the period 2007-2013 (table 1)

**Table 1**

**Bovine meat (in fresh meat equivalent) 2007-2013**

	UM	2007	2008	2009	2010	2011	2012	2013
Utilizable prod.	tone	164502	149449	130228	101236	104502	96675	93000
import fresh meat equiv.	tone	13484	16795	18670	15904	12811	13574	15000
export fresh meat equiv.	tone	6099	3395	1152	2302	6479	10592	6000
Supply available	tone	171887	162849	147746	114838	110834	99657	102000
Human consumption	tone	171887	162849	147746	114838	110834	99657	102000
Self-sufficiency	%	96%	92%	88%	88%	94%	97%	91%

Source: Food balances, The National Statistics Institute

It is interesting to observe the way in which has fluctuated the self-sufficiency degree, important indicator of the food security, in the period 2007-2013. Thus, after a permanent fall up to the year 2010 from 96% to 88%, there follows an increase period up to 97% in the year 2012, after which is decreasing to 91% in 2013

The self-sufficiency degree is calculated as ratio between the internal production and the available for consumption (that is production + import – export ± stocks' variation).

**Scenario 1** is calculated considering that the variables are following the same trend as that in the previous analyzed period (2007-2013).

The prognosis regarding the evolution of the meat production, of the import and export in fresh meat equivalent, of the supply availability and of the consumption availability for the period 2014-2018 (5 years) was made starting from the analysis of the period 2007-2013, calculating in this respect the annual average rhythm of increase, the level and average rate of rise for all indicators mentioned previously (table 2).

**Table 2**

**Statistical indicators bovine meat in fresh meat equivalent - 2007-2013**

specification	Utilizable production	import	export
Annual average index %	90.9	101.8	99.7
Annual average rhythm 1 %	-9.1	+1.8	-0.3

Source: own calculations

Maintaining the same trend of the indicators, we observe that the self-sufficiency degree, is being maintained constant in 2014 and 2015 (91%), after which, it decreases to 90% until 2018 (table 3)

Tabelul 3

**Bovines' meat (in fresh meat equivalent) 2014-2018**

	MU	2014	2015	2016	2017	2018
utilizable prod.	tones	92154	91316	90486	89663	88848
import fresh meat equivalent	tones	15153	15307	15463	15620	15779
export fresh meat equivalent	tones	5940	5881	5822	5764	5707
Supply available	tones	101367	100742	100126	99519	98920
Human consumption	tones	101367	100742	100126	99519	98920
Self-sufficiency	%	91%	91%	90%	90%	90%

Source: own calculations

Opposed to scenario 1, we proposed ourselves to build two more scenarios, in which we assessed the increase of the self-sufficiency degree for the period 2014-2018, on basis of hypotheses which will be presented in the followings. There were taken into account the policy measures addressed to the beef meat sector, present and future, of the sector's fragmentation, of low productivity in comparison to that in the western countries, of the meat import's and export's evolution fresh meat equivalent in the period 2007-2013.

***Internal policy measures***

- ***Stimulation of the increase of livestock number and of production—minimis aid for the purchase of heifers from specialized races*** (measure launched in 2014).
- ***Premias*** - *The national transitory aids (ANT)* in the livestock sector, species bovines is granted from the state Budget, through the MARD budget, to the farmers who benefited of national complementary direct payments in the previous year, the granting conditions being identical to those authorized for the granting of payments afferent to the previous year.

***The supporting measures from European funds (FEGA)***

- ***Production decoupled scheme in the meat sector*** – support coupled for meat bulls (300 euro/capita in 2015-375 euro/capita in 2020), would follow to be granted for minimum 10 and maximum 250 heads, with age of maximum 12 years old at cows and of 6 years old at reproduction bulls, at the limit date for the applications's handing, and inscribed in the Genealogical Register.

***Methodological hypotheses***

- It is considered the maintaining and even supplementation of the support measures for the bovine meat sector in the new NRDP 2014-2020;
- The indicators analysed, in all scenarios, are referring to production, import, export, on basis of them being calculated the supply available, the self-sufficiency degree and the consumption per inhabitant;
- The application of the measure regarding the minimis aid for the stimulation of producers and the increase of the number of meat bovines' number, as well as the granting of premia (transitory national aids), will have as plausible effect, the increase of internal bovine meat production in the period 2014-2018;

- We considered the maintaining as constant of the population in the period 2014-2018;

**Scenario 2 – the production increase by 17.5% (3.5% annual average rhythm), constant import/export**

In this scenario, it was estimated the utilizable production’s increase in the period 2014-2018 by 17,5% (3.5% annual average rhythm), import’s increase and export’s decrease, keeping the same annual average rhythm from the period 2007-2013, of 1.017916 %, respectively, 0.997276 % (table 4).

**Table 4**

**Assesment of self-sufficiency degree, scenario 2**

	MU	2014	2015	2016	2017	2018
Utilizable production	tones	96255	99624	103111	106720	110455
import	tones	15203	15409	15618	15829	16044
export	tones	6085	6171	6258	6346	6436
Supply available	tones	105374	108862	112471	116203	120063
Human consumption	tones	103356	104730	106122	107533	108963
Self-sufficiency	%	91%	92%	92%	92%	92%

Source: own calculations

As we can observe, even in the conditions of the increase of utilizable production from 96255 tones in 2014, to 110455 tones in 2018 (14200 tones), the self sufficiency degree is increasing to 92%, starting with 2015 and remains unchanged until 2018.

**Scenariol 3 – the production increase by 25% (5% annual average rhythm), the decrease of import by 7.5% (-1.5% annual average rhythm), constant export**

In this scenario, it was estimated the increase of the utilizable production in the period 2014-2018 by 25% (5% annual average rhythm), the decrease of import by 7.5% (-1.5% annual average rhythm) and the maintaining of the same annual average rhythm of 0.997276 % of export (table 5).

**Table 5**

**The assesment of the self-sufficiency degree, scenario 3**

	MU	2014	2015	2016	2017	2018
Utilizable production	tones	97650	102533	107659	113042	118694
import	tones	14775	14553	14335	14120	13908
export	tones	6085	6171	6258	6346	6436
Supply available	tones	106340	110915	115737	120816	126167
Human consumption	tones	103356	104730	106122	107533	108963
Self-sufficiency	%	92%	92%	93%	94%	94%

Source :own calculations

In this last scenario, which, we consider, the closest to the goal proposed that of the relaunching as fast as possible of the increase of the self-sufficiency degree, the results are evidencing the fact that, the only way is that of increasing the internal production, concomitently to the reduction of import at dairy products . Thus, the self-sufficiency

degree starts to increase to 92% beginning with 2014 and reaches to 94% beginning with 2017, maintaining the same also in the year 2018.

## CONCLUSIONS

The results obtained regarding the increase of the self-sufficiency degree at bovine meat in fresh meat equivalent, in the period 2014-2018 (5years), on basis of the 3 scenarios elaborated, are relieving the following conclusions:

- In neither of the scenarios, the self sufficiency degree exceeds 94% (in 2017 and 2018 – scenario 3), opposed to 91% in 2013, or opposed to 97% in 2012;
- Only the decrease of import with an annual average rhythm of 1.5%, concomitently with the increase of the utilizable production with an annual average rhythm of 5%, will lead to the increase of the self-sufficiency degree to 94%, starting with 2017, situation which is maintaining until the year 2018.

The relaunching of the beef meat consumption in în Romania and the creation of export availabilities, as well as the qualitative improvement of the Romanian consumption, represents a major goal, which can be reached through measures of sectoral policy which has to have in view the followings:

- The foundation of competitive farms and the re-technologization of the existent ones through the attraction of investments and use of structural funds in the field of animal raise;
- Improvement of the quality of bovines' meat production both by purchasing animals of perfected races, adaptable to the conditions in our country. And the melioration of livestock through the application of the most recent methods of selection and reproduction;
- Improvement of the production performances, as well as of the conditions for raise and farming, in view of increasing the relative share of animal production in the value of agricultural production;
- Improvement of the nutrition and feeding through the ensuring of the nutrients with an optimum proteins' and calories' level for the categories within the species-bovines

As a perspective, together with the removal of the milk quotas starting with the year 2015 and the restructuring of the milk cows livestock, there will remain 700000-800000 cows for meat. These will be able to be inseminated with seminal material for meat, both for the cover of the necessary for the internal market, as for the export on the external markets. As an argument, it is relieved the fact that, the activity of cattle raise for meat is much easier than the milk production, involving costs with the sheds- very low, and the costs with the feeding resuming itself to pastures during summer and to hay in winter and it is eliminated the cost for milk installations.

The policy measures addressed to the sector of bovine raise for meat, present and future must take into account the remedy of the present situation regarding the sector's fragmentation and the low productivity comparatively to that in the West European countries, and the beneficiaries of the new NRDP 2014-2020, the agricultural producers, physical or juridical persons, identified and registered in the national system, have at their disposal support schemes both for the farms' modernization, and for the improvement of the farms, and also for the technologies' improvement and the increase of the livestock's numbers .

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