

Ursu, Ana

Conference Paper

Influence of the coupled support to the profitability of the vegetable crops sector

Provided in Cooperation with:

The Research Institute for Agriculture Economy and Rural Development (ICEADR), Bucharest

Suggested Citation: Ursu, Ana (2016) : Influence of the coupled support to the profitability of the vegetable crops sector, In: Agrarian Economy and Rural Development - Realities and Perspectives for Romania. 7th Edition of the International Symposium, November 2016, Bucharest, The Research Institute for Agricultural Economy and Rural Development (ICEADR), Bucharest, pp. 133-141

This Version is available at:

<https://hdl.handle.net/10419/163364>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

INFLUENCE OF THE COUPLED SUPPORT TO THE PROFITABILITY OF THE VEGETABLE CROPS SECTOR

Ana URSU¹

Abstract: *The purpose of this paper is to analyze the current state of vegetable sector and especially soybeans, rice, beets, hemp, hops receiving support coupled with subsidy on the surface as direct pay. The analysis takes into account a number of relevant indicators for both the performance of the sector in order to stimulate farmers for investments in certain crops and for farmers' incomes, meaning that coupled support may influence the profitability of crops to the detriment of crops declared as the profitable agricultural plant. In principle, each culture deals with analytical situation every technical and economic indicator focusing on highlighting gaps profitability. Examine where each culture in terms of the indicators considered in the study and make some concluding remarks about the current state of economic development of the vegetable sector and studied plants and the need to grant coupled support to maintain surfaces that are cultivated in present.*

Keywords: *support coupled, vegetable sector, technical and economic indicators, profitability*

JEL Classification: O12, P50, Q18, Q57

INTRODUCTION

In Romania, agricultural policy measures for the agricultural sector are manifold: the Single Payment Scheme on the surface, transitional national aid 1 and 3, various forms of support for measures of market-intervention, other forms of support from the state budget for sectors and sensitive activities in relation to market requirements, etc. (1) is coupled support is granted a direct payment to farmers for certain crops important for Romania, for economic, social and environmental reasons. For the vegetable crops sector, was established a legislative act - Order no. 619/2015, which stipulates "approval of eligibility criteria, specific conditions and the implementation of the payment schemes", the coupled support is an additional form of financial support from European funds, and other direct payment schemes, namely: Scheme the single area payment, redistributive payment, payment for agricultural practices beneficial for the climate and the environment, payment for young farmers, as appropriate, coupled support scheme, aid for diesel used in agriculture, etc. Principal objective of farming subsidies is capitalization and increase the competitiveness of the agricultural sector, with explicit connection with rural development objectives (2).

MATERIAL AND METHOD

In drafting of this work were used the following research methods: quantitative analysis of statistics (for crops: soy, hemp, rice, hops, sugar beet), qualitative analysis of information on agricultural policy measures in Romania, constructive regulatory method - to design alternatives analysis, which was calculated based on a system of technical and economic indicators, which allowed choosing the optimal; detailed analysis of variants for calculating coupled support for crops referred. The information was complemented by those contained in articles and studies published in professional journals in 2014-2020 (PNDR) etc.

¹ Scientific researcher II, Research Institute for Agriculture Economy and Rural Development (ASAS), e-mail: ursu.ana@iceadr.ro

RESULTS AND DISCUSSIONS

SOYBEAN

Areas planted with soybeans fell annually after 2007, following the ban on GM soy. In 2008 and 2009 they were cultivated only 49 and 48 thousand hectares. From 2011 areas began to grow, reaching in 2015-127000 hectares. The average yields obtained on areas planted with soybeans ranged from 1,021 t/ha in 2007 to 2.5 t/ha in 2014, when the maximum yield for the period under review. Since the total production continued to be insufficient for domestic consumption is an increase in imports of soybeans in 2008 (93 400 t) and 2011-2015 (from 34 400 t to 163,8 t). Values for quantities imported vary from 12.9 million euro in 2011 to 65.8 million euro in 2015. Coupled support for the soybean crop will maintain a certain level of production and reduce imports addicts Romania vegetable protein (7).

Coupled support for soybean

Since 2015 the supported coupled soybeans worth 325 euro/ha, will be increased by 10 euro every year until 2020. Coupled support for the soybean crop is given to active farmers who prove that achieves a minimum annual production of 1300 kg soy beans/ha (art. 42 of Decree 619/2015) (6).

Table no. 1: Influence of the coupled support on soybean crop profitability

INDICATORS	U.M	VALUES	
		Soybean 3 t/ha	Soybean 4,5 t/ha
A. PRODUCTION VALUE	lei	5730	8635
A ₁ . Of which the main production	lei	5490	8235
B (+) SUBSIDIES	lei	1944.1	1944.07
C (=) THE CRUDE PRODUCT	lei	7674.1	10579.07
D (-) TOTAL COSTS	lei	5500.1	6629.3
D ₁ . Of which for the main production	lei	5260.1	6229.3
I. VARIABLE COSTS	lei	4791.9	5774.9
II. FIXED COSTS	lei	708.1	854.4
E. (=) TAXABLE INCOME	lei	229.9	2005.7
(-) Taxes	lei	36.8	320.9
F. (=) NET INCOME	lei	193.1	1684.8
F.1 (=) NET INCOME + total subsidy	lei	2137.2	3628.8
F.2 (=) NET INCOME + notified subsidy	lei	1655.6	3147.3
F.3 (=) NET INCOME + awarded subsidy	lei	1403.6	2895.3
F.4 (=) NET INCOME + direct payments	lei	926.7	2418.3
G. RATE OF TAXABLE INCOME (%)	%	4.4	32.2
H. RATE OF NET INCOME (%)	%	3.7	27.0
H.1 RATE OF NET INCOME + total subsidy (%)	%	40.6	58.3
H.2 RATE OF NET INCOME + notified subsidy (%)	%	31.5	50.5
H.3 RATE OF NET INCOME + awarded subsidy (%)	%	26.7	46.5
H.4 RATE OF NET INCOME + direct payments (%)	%	17.6	38.8
COST OF PRODUCTION	lei/to	1753	1384
PREDICTABLE PRICE OF INTERNAL MARKET	lei/to	1830	1830

Source: Own calculations

Soybean crop production at two levels, 3 t/ha and 4.5 t/ha rate has a net income of between 3.7% and 27% (table no. 2). Explaining the action and to accurately assess the physical volume of the gross income soybean production may be regarded as positive in economic terms given that efficiency was observed correlation between spending index and

production index as physical effort effect. Where we consider the support schemes, the rate of return cultural changes, as follows:

- *Rate of net income + total subsidy*: it is estimated a rate of return of between 40.6% and 58.3% share of total support (1944.072 lei/ha / 432.0161 euro/ha) in net income (between 2137.2 lei/ha and 3628.8 lei/ha) was 91% for the production of 3 t/ha and 53.6% for the production of 4,5 t/ha%; **Option 1**: Direct payments + coupled support (163,0161 euro + 269 euro = 432,0161 euro/ha);

- *Rate of net income + notified subsidy*: it is estimated a rate of return of between 31.5% and 50.5% share of support notified (1462.5 lei/ha / 325 euro/ha) in net income (between 1655.6 lei/ha and 3147.3 lei/ha) was 68% for the production of 3 t/ha and 40.3% for the production of 4,5 t/ha%; **Option 2**: Support notified (325 euro/ha);

- *Rate of net income + awarded subsidy*: a rate of return is estimated between 26.7% and 46.5% share of support (1210.5 lei/ha / 269 euro/ha) in net income (between 1403.6 lei/ha and 2895.3 lei/ha) was 56.6% for the production of 3 t/ha and 33.4% for the production of 4,5 t/ha%; **Option 3**: The support (269 euro/ha);

- *Rate of net income + direct payment rate*: a rate of return is estimated between 17.6% and 38.8%, the share of direct payments (733.5725 lei/ha / 163.0161 euro/ha) in net income (between 926.7 lei/ha and 2418.3 lei/ha) was 34.3% for the production of 3 t/ha and 20.2% for the production of 4,5 t/ha%; **Option 4**: direct payments (163.0161 euro/ha = 79.7392 euro/ha - SAPS + 5 euro/ha payment redistributive + 59.1277 euro/ha - payment greening + 19,1492 ANT);

- *Taxable income rate*: it is estimated taxable income rate between 4.4% (229.9 lei/ha) and 32.2% (2005.7 lei/ha) soybean crop, the production level of 3 t/ha, not within the range of profitability in economically.

Conclusion: the conditions of granting coupled support soybean crop has low returns, and with that amount /ha of 269 euro/ha pays off so as to cultivate further.

HEMP OIL AND FIBER

Compared to 2010 when 23 hectares were cultivated textile plant in 2014 this area has increased 32 times, reaching 765 ha. 2015 to 2014 flats were reduced by about 17% (630 ha to 765 ha) and there is a need to encourage the cultivation of hemp sector as an alternative to cereal species. Coupled support the hemp was 194 euro/ha in 2015 and will grow by 10 euro each year by 2020 (7). Coupled support for growing hemp fiber and oil are granted active farmers proof that they have achieved a minimum production of 600 kg of seed/ha or 10,000 kg dried stems/ha (art. 47 of Decree 619/2015) (6).

Table no. 2: Influence of the coupled support on hemp crop profitability

INDICATORS	U.M	VALUES	
		Hemp 45 t/ha	Hemp 65 t/ha
A. PRODUCTION VALUE	lei	5107.5	7377.5
A ₁ . Of which the main production	lei	5107.5	7377.5
B (+) SUBSIDIES	lei	2142.1	2142.1
C (=)THE CRUDE PRODUCT	lei	6516.0	8786.0
D (-) TOTAL COSTS	lei	5820.9	5877.5
D ₁ . Of which for the main production	lei	5820.9	5877.5
I. VARIABLE COSTS	lei	5536.5	5586.2
II. FIXED COSTS	lei	284.3	291.3
E. (=)TAXABLE INCOME	lei	-713.4	1500.0
(-) Taxes	lei	-114.1	240.0
F. (=) NET INCOME	lei	-599.2	1260.0
F.1 (=) NET INCOME + total subsidy	lei	1542.8	3402.1
F.2 (=)NET INCOME + notified subsidy	lei	809.3	2668.5
F.3 (=)NET INCOME + awarded subsidy	lei	273.8	2133.0

F.4 (=)NET INCOME + direct payments	lei	134.3	1993.6
G. RATE OF TAXABLE INCOME (%)	%	-12.3	25.5
H. RATE OF NET INCOME (%)	%	-10.3	21.4
H.1 RATE OF NET INCOME + total subsidy (%)	%	26.5	57.9
H.2 RATE OF NET INCOME + notified subsidy (%)	%	13.9	45.4
H.3 RATE OF NET INCOME + awarded subsidy (%)	%	4.7	36.3
H.4 RATE OF NET INCOME + direct payments (%)	%	2.3	33.9
COST OF PRODUCTION	lei/to	129.4	90.4
PREDICTABLE PRICE OF INTERNAL MARKET	lei/to	113.5	113.5

Source: Own calculations

Culture hemp production at two levels, 45 t/ha and 65 t/ha rate has a net income of between -10.3% and 21.4% (table no. 3). Explanation and correct assessment of the action of physical volume of production of hemp on gross income (45 t/ha) can be considered as negative economic conditions has not been complied correlation efficiency of index expenditures that effort and production index physical effect. Where we consider the support schemes, the rate of return cultural changes, as follows:

- *Rate of net income + total subsidy*: it is estimated a rate of return of between 26.5% and 57.9% share of total support (2142,072lei/ha / 476 euro/ha) in net income (between 1542.8 lei/ha and 3402.1 RON / ha) being 138% for the production of 45 t/ha and 63% for the production of 65 t/ha%; **Option 1**: + Direct payments coupled support (163.0161 476.0161 euro = euro + 313 euro/ha);

- *Rate of net income + notified subsidy*: a rate of return is estimated between 13.9% and 45.4% share of support (1408,5lei/ha / 313 euro/ha) in net income (between 809.3lei/ha and 2,668.5 lei/ha) was 91% for the production of 45 t/ha and 41.4% for the production of 65 t/ha%; **Option 2**: The support (313 euro/ha);

- *Rate of net income + awarded subsidy*: it is estimated a rate of return of between 4.7% and 36.3% share of support notified (873 lei/ha / 194 euro/ha) in net income (between 273.8 lei/ha and 2133.0 RON / ha) was 56.6% for the production of 45 t/ha and 25.7% for the production of 65 t/ha%; **Option 3**: Support notified (194 euro/ha);

- *Rate of net income + direct payment rate*: it is estimated a rate of return of between 2.3% and 33.9%, the share of direct payments (733.5725 lei/ha / 163.0161 euro/ha) in net income (between 134.3 lei/ha and 1993.6 lei/ha) was 47.5% for the production of 45 t/ha and 21.6% for the production of 65 t/ha%; **Option 4**: direct payments (163.0161 euro/ha = 79.7392 EUR / ha - SAPS + 5 euro/ha payment redistributive + 59.1277 EUR / ha - Payment greening ANT + 19.1492); - *Taxable income rate*: a rate estimated taxable income of between -12.3% (-713.4 lei/ha) and 25.5% (1500 lei/ha) crop hemp production at 45 t/ha, do not fall within the profitability of economically.

Conclusion: In terms of granting coupled support hemp culture (45 t/ha) is economically inefficient. Award amount/ha of 313 euro/ha increases the profitability culture of -10.3% from 13.9% at.

RICE

Area under rice in the period 2007-2015 increased from 8,000 ha to 10,800 ha in 2015, reaching a maximum of 13,300 ha in 2009 correlated with a maximum production of 5,426 kg/ha. Rice culture has been supported in Romania and in the intervals 2007-2009 and 2012-2014 still cultivated (7). Unlike other cereals, rice production costs are much higher and coupled support complements the support necessary for this crop to be grown. Coupled support to rice (will be 450 euro/ha in 2015, is expected to grow annually by 2020), shall be granted to growers of rice farmers active, showing evidence-based tax invoice, the marketing of a minimum yield of 4,500 kg/ha rice (art. 47 of Decree 619/2015) (6).

Table no. 3: Influence of the coupled support on rice culture profitability

INDICATORS	U.M	VALUES	
		Rice 3,5 t/ha	Rice 6,0 t/ha
A. PRODUCTION VALUE	lei	3740	6400
A1. Of which the main production	lei	3500	6000
B (+) SUBSIDIES	lei	3654.1	3654.1
C (=) THE CRUDE PRODUCT	lei	7394.1	10054.1
D (-) TOTAL COSTS	lei	5227.1	6069.4
D1. Of which for the main production	lei	4987.1	5669.4
I. VARIABLE COSTS	lei	4923.0	5661.8
II. FIXED COSTS	lei	304.1	407.6
E. (=) TAXABLE INCOME	lei	-1487.1	330.6
(-) Taxes	lei	-237.9	52.9
F. (=) NET INCOME	lei	-1249.2	277.7
F.1 (=) NET INCOME + total subsidy	lei	2250.8	3931.7
F.2 (=) NET INCOME + notified subsidy	lei	1671.3	3198.2
F.3 (=) NET INCOME + awarded subsidy	lei	775.8	2302.7
F.4 (=) NET INCOME + direct payments	lei	-515.6	1011.2
G. RATE OF TAXABLE INCOME (%)	%	-29.8	5.8
H. RATE OF NET INCOME (%)	%	-25.0	4.9
H.1 RATE OF NET INCOME + total subsidy (%)	%	45.1	69.3
H.2 RATE OF NET INCOME + notified subsidy (%)	%	33.5	56.4
H.3 RATE OF NET INCOME + awarded subsidy (%)	%	15.6	40.6
H.4 RATE OF NET INCOME + direct payments (%)	%	-10.3	17.8
COST OF PRODUCTION	lei/to	1425	945
PREDICTABLE PRICE OF INTERNAL MARKET	lei/to	1000	1000

Source: Own calculations

Rice crop at the two production levels, 3.5 t/ha and 6 t/ha, has a rate of -25% in net income and 4,9% (table no. 4). Explanation and correct assessment of the action of physical volume of rice production on gross income (6 t/ha) can be assessed positively in terms of economic conditions has been observed correlation efficiency of index expenditures that effort and the index of physical production effect. Support schemes apply only to the production level of 4.5 t/ha (art. 47 of Decree 619/2015). Comparative analysis will be done for the two levels of coupled support production but will be considered only for the production of 6 t/ha. In this situation the rate of return culture is presented as follows:

- *Rate of net income + total subsidy*: an estimated rate of return of 69,3% share of total support (3,654.072 lei/ha / 812 euro/ha) in net income (3,931.7 lei/ha) was 92,9% for production 6 t/ha%; **Option 1**: + Direct payments coupled support (163,0161 euro + 649 euro = 812,0161 euro/ha);
- *Rate of net income + notified subsidy*: it is estimated a rate of return of 56,4% share of support (2,920.5 lei/ha / 659 euro/ha) in net income (3,198.2 lei/ha) being by 74,3% for production 6 t/ha%; **Option 2**: The support (649 euro/ha);
- *Rate of net income + awarded subsidy*: an estimated rate of return of 40,6% share of support notified (2,025 lei/ha / 450 euro/ha) in net income (2,302.7 lei/ha) was 51,1% for production 6 t/ha%; **Option 3**: Support notified (450 euro/ha);
- *Rate of net income + direct payment rate*: it is estimated a rate of return of between -10,3% and 17,8%, the share of direct payments (733,5725 lei/ha / 163,0161 euro/ha) in net income (-515,6 lei/ha and 1,011.2 lei/ha) was 32,6% for the production of 3,5 t/ha and 18,7% for the production of 6 t/ha%; **Option 4**: direct payments (163.0161 euro/ha = 79,7392 EUR / ha - SAPS + 5 euro/ha payment redistributive + 59,1277 EUR / ha - payment greening + 19,1492 ANT);

- *Taxable income rate*: a rate estimated taxable income of between -29,8% (-1487,1 lei/ha) and 5,8% (330,6 lei/ha), rice crop, the production level of 3.5 t/ha is economically inefficient. **Conclusion**: rice culture coupled support for 812 euro, conditional on the production level of 4.5 t/ha will help increase yields and production areas, but also to preserve the economic role of the culture of rice in areas affected by constraints natural.

HOP

Current status: hop culture was presented in the form of state aid as commodity production, but as a separate payment CNDP distinguished from other cultures. To hop record high maintenance costs because this culture requires the support of investment in the first 3 years. Currently, domestic production of hops can cover only 15% of the beer industry (7). Coupled support for hops is granted active farmers who have signed a contract with a brewery or processing plants for pharmaceutical purposes proof of minimum production 490 kg dry hop cones/ha (art. 47 of Decree 619/2015) (6). Area under hops in 2015 was 241 hectares.

Table no. 4: Influence of the coupled support on hop culture profitability

INDICATORS	U.M	VALUES	
		Hop 1,5 t/ha	Hop 2 t/ha
A. PRODUCTION VALUE	lei	47550	63400
A ₁ . Of which the main production	lei	47550	63400
B (+) SUBSIDIES	lei	3361.6	3361.6
C (=) THE CRUDE PRODUCT	lei	50911.6	66761.6
D (-) TOTAL COSTS	lei	45065.5	45686.3
D ₁ . Of which for the main production	lei	45065.5	45686.3
I. VARIABLE COSTS	lei	40361.1	40679.5
II. FIXED COSTS	lei	4704.4	5006.8
E. (=) TAXABLE INCOME	lei	2484.5	17713.7
(-) Taxes	lei	397.5	2834.2
F. (=) NET INCOME	lei	2087.0	14879.5
F.1 (=) NET INCOME + total subsidy	lei	5448.6	18241.1
F.2 (=) NET INCOME + notified subsidy	lei	4715.0	17507.5
F.3 (=) NET INCOME + awarded subsidy	lei	4337.0	17129.5
F.4 (=) NET INCOME + direct payments	lei	2820.6	15613.1
G. RATE OF TAXABLE INCOME (%)	%	5,51	38,8
H. RATE OF NET INCOME (%)	%	4.6	32.6
H.1 RATE OF NET INCOME + total subsidy (%)	%	12.1	39.9
H.2 RATE OF NET INCOME + notified subsidy (%)	%	10.5	38.3
H.3 RATE OF NET INCOME + awarded subsidy (%)	%	9.6	37.5
H.4 RATE OF NET INCOME + direct payments (%)	%	6.3	34.2
COST OF PRODUCTION	lei/to	30044	22843
PREDICTABLE PRICE OF INTERNAL MARKET	lei/to	31700	31700

Source: Own calculations

Hop culture at the two production levels, 1.5 t/ha and 2 t/ha rate has a net income of between 4.6% and 32.6% (table no. 5). Explaining the action and to accurately assess the physical volume of production of hemp (1.5 t/ha and 2 t/ha) on gross income can be assessed positively in terms of economic conditions in which efficiency was observed correlation between index costs as effort and physical production index effect. Where are taken into account and support schemes, the rate of return cultural changes, as follows:

- *Rate of net income + total subsidy*: it is estimated a rate of return of between 12.1% and 39.9% share of total support (3,654.072lei/ha / 747.0161 euro/ha) in net income (between 5,448.6 lei/ha and 18,241.1 lei/ha) was 61.7% for the production of 1.5 t/ha and 18.4% for the production of 2 t/ha%; **Option 1**: + Direct payments coupled support (163,0161 euro + 584 euro = 747,0161 euro/ha);

- *Rate of net income + notified subsidy*: a rate of return is estimated between 10.5% and 38.3% share of support (2628lei/ha / 584 euro/ha) in net income (between 4715.0 lei/ha and 17507.5 RON / ha) was 48.2% for the production of 1.5 t/ha and 14.4% for the production of 2 t/ha%; **Option 2**: The support (584 euro/ha);

- *Rate of net income + awarded subsidy*: it is estimated a rate of return of between 9.6% and 37.5% share of support notified (2250 lei/ha / 500 euro/ha) in net income (between 4,337.0 lei/ha and 17,129.5 lei/ha) was 41.3% for the production of 1,5 t/ha and 12.3% for the production of 2 t/ha%; **Option 3**: Support notified (500 euro/ ha);

- *Rate of net income + direct payment rate*: it is estimated a rate of return of between 6.3% and 34.2%, the share of direct payments (733,5725 lei/ha / 163,0161 euro/ha) in net income (between 2820.6 lei/ha and 15613.1 lei/ha) was 13.5% for the production of 1,5 t/ha and 4% for the production of 2 t/ha%;

Option 4: direct payments (163,0161 euro/ha = 79,7392 euro/ ha - SAPS + 5 euro/ha payment redistributive + 59.1277 euro/ ha - payment greening + 19.1492 ANT);

- *Taxable income rate*: it is estimated taxable income rate between 5.51% (-2,484.5 lei/ha) and 38.8% (17,713.7 lei/ha), hop culture at the production level of 1.5 t/ha, it has a lower profitability.

Conclusion: support coupled hop culture 747,0161 for euro/ha conditioned production level of 490 kg / ha, will help ensure the necessary production for the brewing industry.

SUGAR BEET

Current status: area planted with sugar beet in the period 2007-2015, ranging from 18 000 ha in 2011 (when, because of unfavorable conditions for the period under review recorded minimum) to 31 000 ha in 2014, year in which obtained the highest average production per hectare 43.7 t/ha, which may be explained by better use of technology and more efficient use of land suitable for this crop. Romania financial support for sugar beet tends to keep them in culture in order to achieve the quota allocated to Romania. Through this support farmers incentive for maintaining and expanding cultivated areas, given that 2017 will be eliminated quotas on sugar. Currently, the consumption need of Romania is about 500,000 tons of sugar / year (1). Reducing the production of sugar beet due to favorable raw sugar import could not be offset by increased subsidies per hectare beet cultivation. Foreign trade in sugar is characterized by negative trade balance, since Romania is a net importer of raw sugar and white sugar. An agricultural policy measure were intended to expand areas under sugar beet, but has not succeeded relaunching this culture. Romania imports still mostly of the need for sugar. Coupled support for growing sugar beet growers are given rice farmers active, showing evidence proving commercialization of a minimum yield of 26,400 kg / ha (art. 50 of Decree 619/2015). Area planted with sugar beet in 2015 was 29,300 hectares.

Table no. 5: Influence of the coupled support on sugar beet culture profitability

INDICATORS	U.M	VALUES	
		Sugar beet 40 t/ha	Sugar beet 70 t/ha
A. PRODUCTION VALUE	lei	6600.0	11550.0
A ₁ . Of which the main production	lei	6600.0	11550.0
B (+) SUBSIDIES	lei	4270.6	4270.6
C (=)THE CRUDE PRODUCT	lei	10870.6	15820.6
D (-) TOTAL COSTS	lei	6407.8	7483.4
D ₁ . Of which for the main production	lei	6407.8	7483.4
I. VARIABLE COSTS	lei	6100.0	6738.8
II. FIXED COSTS	lei	307.8	744.6
E. (=)TAXABLE INCOME	lei	192.2	4066.6

(-) Taxes	lei	30.8	650.7
F. (=) NET INCOME	lei	161.5	3415.9
F.1 (=) NET INCOME + total subsidy	lei	4432.0	7686.5
F.2 (=) NET INCOME + notified subsidy	lei	3698.5	6952.9
F.3 (=) NET INCOME + awarded subsidy	lei	2861.5	6115.9
F.4 (=) NET INCOME + direct payments	lei	895.0	4149.5
G. RATE OF TAXABLE INCOME (%)	%	3.0	54.3
H. RATE OF NET INCOME (%)	%	2.5	45.6
H.1 RATE OF NET INCOME + total subsidy (%)	%	69.2	102.7
H.2 RATE OF NET INCOME + notified subsidy (%)	%	57.7	92.9
H.3 RATE OF NET INCOME + awarded subsidy (%)	%	44.7	81.7
H.4 RATE OF NET INCOME + direct payments (%)	%	14.0	55.4
COST OF PRODUCTION	lei/to	160.2	106,9
PREDICTABLE PRICE OF INTERNAL MARKET	lei/to	165.0	165.0

Source: Own calculations

Culture sugar beet production at two levels, 40 t/ha and 70 t/ha rate has a net income of between 2.5% and 45.6% (table no. 6). Explaining the action and to accurately assess the physical volume of production of hemp (40 t/ha and 70 t/ha) on gross income can be considered as economically positive.

Where are taken into account and support schemes, the rate of return cultural changes, as follows:

- *Rate of net income + total subsidy*: it is estimated a rate of return of between 69.2% and 102.7% share of total support (4,270.5 lei/ha / 949,0161euro/ha) Net income (between 4,432.0 lei/ha and 7,686.5 lei/ha) was 96.4% for the production of 40 t/ha and 55.6% for the production of 70 t/ha%; **Option 1**: + Direct payments coupled support (163,0161 euro + 786 euro = 941,0161 euro/ha);

- *Rate of net income + notified subsidy*: a rate of return is estimated between 57.7% and 92.9% share of support (3,537 lei/ha / 786 euro/ha) in net income (between 3,698.5 lei/ha and 6,952.9 lei/ ha) was 78.9% for the production of 40 t/ha and 46% for the production of 70 t/ha%; **Option 2**: The support (786 euro/ha);

- *Rate of net income + awarded subsidy*: it is estimated a rate of return of between 44.7% and 81.7% share of support notified (2,700 lei/ha / 600 euro/ha) in net income (between 2,861.5 lei/ha and 6,115.9 lei/ ha) was 60.9% for the production of 40 t/ha and 35.1% for the production of 70 t/ha%; **Option 3**: Support notified (600 euro/ha);

- *Rate of net income + direct payment rate*: it is estimated a rate of return between 14% and 55.4%, the share of direct payments (733,5725 lei/ha / 163,0161 euro/ha) in net income (between 895.0 lei/ha , and ROL 4149.5 / ha) was 16.6% for the production of 40 t/ha and 9.5% for the production of 70 t/ha%; **Option 4**: direct payments (163,0161 euro/ha = 79,7392 EUR / ha - SAPS + 5 euro/ha payment redistributive + 59.1277 euro/ha - payment greening + 19.1492 ANT);

- *Taxable income rate*: it is estimated taxable income rate between 3% (895.0 lei/ha) and 54.3% (4,149.5 lei/ha), sugar beet crop, the production level of 40 t/ha, It has a lower return.

Conclusion: the support coupled for hop culture worth 949,0161euro/ha, who is conditioned by a minimum yield level of 26,400 kg / ha, will help maintain and expand the area under sugar beet.

CONCLUSIONS

Agricultural policy measures applied in Romania aimed, on one hand, to maintaining production at the current level in order to ensure food security, and on the other hand, to

income support for farmers. Coupled support scheme, subject to obtaining certain production levels that will apply during the period 2015-2020 in the vegetable sector provides crop profitability analysis (as demonstrated) and will contribute to:

- Reducing imports of vegetable proteins and ensuring quality feed for the livestock sector (soybean);
- Re-launch domestic production of plant fibers (hemp);
- Increased raw material provenance insurance industry of local beer (hops);
- Maintaining and expanding cultivated areas (rice, sugar).

BIBLIOGRAFIE

1. Elena Toma (2010), *Agricultura României în procesul de integrare europeană. Evaluări și prognoze*, Editura ARS Academica.
2. Ana Ursu, Elena Cofas (2016), “*Research on forms of financial support for producers in Romanian agriculture. Case study: 2011-2015*”
3. L. Zahiu, E. Toma, A. Dachin, C Alexandri (2010) “*Agricultura in Economia Romaniei – între așteptari si realitati*”, Editura Ceres, Bucuresti 2010.
4. C Alexandri, L. Luca (2009) “*Finantarea agriculturii romanesti dupa aderare*”, Editura ARS Academica.
5. APIA (2016) “[Ghid pentru solicitantii de plăți directe și ajutoare naționale](#) tranzitorii în sectorul vegetal – Campania 2016 - Versiunea 1. 0
6. MADR (2015) - Ministerul Agriculturii și Dezvoltării Rurale – “*Ordinul nr. 619/2015 pentru aprobarea criteriilor de eligibilitate, condițiilor specifice și a modului de implementare a schemelor de plăți prevăzute la art. 1 alin. (2) și (3) din Ordonanța de urgență a Guvernului nr. 3/2015 pentru aprobarea schemelor de plăți care se aplică în agricultură în perioada 2015-2020 și pentru modificarea art. 2 din Legea nr. 36/1991 privind societățile agricole și alte forme de asociere în agricultură, precum și a condițiilor specifice de implementare pentru măsurile compensatorii de dezvoltare rurală aplicabile pe terenurile agricole, prevăzute în Programul Național de Dezvoltare Rurală 2014-2020*”
7. <http://agrintel.ro/28591/sprijin-cuplat-in-sectorul-vegetal-in-2015>