

Economic Efficiency of the Maize Grain

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Abstract

In this work, was calculated and the level of profitability for several levels of production for grain maize cultivation. We chose corn because it is one of the most important forage crops, we could say even the largest, occupying third place among cultivated plants worldwide. Along with wheat and barley, the food is the biggest part of the population in the world, directly or converted to animal products.

Maize can be used in animal feed in various forms. The most used is corn grain, which is characterized by a very high nutritional value, this product is properly regarded as a feed concentrate. Culture of maize has been designed two levels of production: 4000 kg / ha and 6000 kg / ha.

Keywords: *grain maize, budget, production, culture*

1. Introduction

Corn is one of the most important forage crops, we could even say the most important. Maize can be used in animal feed in various forms. The most used is corn grain, which is characterized by a very high nutritional value, this product is properly regarded as a feed concentrate [1-2].

2. Materials and methods

In this paper we analyzed in detail the culture of maize grains for consumption and have calculated your budget and profitability for the two levels of production, namely 4000 and 6000 kg / ha.

3. Results and discussion

Maize can be used in feed as silage strains harvested during baking, milk demand. Used in

this form is particularly popular in feeding animals, being considered a feed lactogen.

Also feeding the animals used are products of the culture of maize - cobs or residue resulting from processing industries: starch industry, alcohol, cake of edible vegetable oil industry, etc. Here therefore, that maize seems to be one of the most important crop plants in agriculture Romania aspect stressed by the large share in a culture that takes in the arable land - around 27-30% nationally, almost half of the area land affected cereal plants.

An unusual use of corn is the creation of Maize Maze labyrinth as a tourist attraction. It is nothing but a maze cut into a corn field. The idea belongs to Adrian Fisher, one of the most prolific designer and corn mazes from The American Maze Company who created a maze in Pennsylvania in 1993. Maize is still an important model organism for genetics and developmental biology today [3].

Culture of maize has been designed two levels of production: 4000 kg/ha and 6000 kg/ha. Projected level of 4000 kg/ha, the main production is 2320 lei/ha and the total production costs of major 1912,42 lei/ha, of which variable expenses 1680,82 lei / ha (Table 1)

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Table 1. Budget of culture: consum maize
Harvest 2012/2013, Calculations per hectare

INDICATORS	U.M	VALUE		
		Without rent	With rent in costs	With rent from income
A. PRODUCTION VALUE	lei	2380	2380	2380
A ₁ . From the main production	lei	2320	2320	2320
B (+)SUBSIDIES	lei	175	175	175
C (=) GROSS PRODUCT	lei	2555	2555	2555
D (-)TOTAL EXPENSES	lei	1972,42	2340,97	1972,42
D ₁ . From witch for the main production	lei	1912,42	2280,97	1912,42
I. VARIABLE COSTS	lei	1680,82	1680,82	1680,82
1. Raw materials and supplies	lei	913,6	913,6	913,6
- Seeds and seedlings	lei	412,5	412,5	412,5
- Fertilizer	lei	314,9	314,9	314,9
- Pesticides	lei	186,2	186,2	186,2
- Other materials	lei	x	x	x
2. Expenses with mechanical works	lei	712,22	712,22	712,22
3. Expenditure with Irrigation	lei	x	x	x
4. Supply expenses	lei	27,4	27,4	27,4
5. Temporary labor expenses *	lei	x	x	x
6. Insurance	lei	27,6	27,6	27,6
II. FIXED EXPENSES	lei	291,6	660,15	291,6
- Fixed labor expenses	lei	185,6	185,6	185,6
- General and management expenses	lei	36,8	36,8	36,8
- Interest on loans	lei	36,2	36,2	37,20
- Lease **	lei	x	368,55	x
- Depreciation for buildings and utilities	lei	33	33	33,00
E. (=)TAXABLE INCOME	lei	407,58	39,03	407,58
(-)Taxes	lei	65,2	6,2	65,20
(-)Lease **	lei	x	x	368,55
F. (=)NET INCOME + grants	lei	517,4	207,8	148,8
G. TAXABLE INCOME RATE (%)	%	21,3	1,7	21,3
H. NET INCOME RATE + grants (%)	%	27,1	9,1	7,8
COST OF PRODUCTION	lei/to	478,1	570,24	478,1
INTERNAL Foresight MARKET PRICE	lei/to	580	580	580

A result of a unit cost 478,1 lei/t, which in terms of a price recovery projected for 2014 by 580 lei/t, lead to a net taxable profit of 101,9 lei/t, which means a rate of profitability of net income 21,3% .

At the projected production of 6000 kg/ha, the main production is 3480 lei/ha, the total

production costs of major 2818,05 lei/ha, of which variable expenses 2381,67 lei/ha (Table 2).

A result of the unit cost of 469,67 lei/t, at a price forecast for 2014 by 580 lei/t, lead to a net taxable profit of 110,33 lei/t, with a rate of return on net taxable profits of 23, 5%.

Table 2. Budget of culture: consum maize
Harvest 2012/2013, Calculations per hectare

INDICATORS	U.M	VALUE		
		Without rent	With rent in costs	With rent from income
A. PRODUCTION VALUE	lei	3561	3561	3561
A ₁ . From the main production	lei	3480	3480	3480
B (+)SUBSIDIES	lei	175	175	175
C (=) GROSS PRODUCT	lei	3736	3736	3736
D (-)TOTAL EXPENSES	lei	2899,05	3308,55	2899,05
D ₁ . From witch for the main production	lei	2818,05	3227,55	2818,05
I. VARIABLE COSTS	lei	2381,67	2381,67	2381,67
1. Raw materials and supplies	lei	949,5	949,5	949,5
- Seeds and seedlings	lei	412,5	412,5	412,5
- Fertilizer	lei	350,8	350,8	350,8
- Pesticides	lei	186,2	186,2	186,2
- Other materials	lei	x	x	x
2. Expenses with mechanical works	lei	733,67	733,7	733,67
3. Expenditure with Irrigation	lei	630	630	630
4. Supply expenses	lei	28,5	28,5	28,5
5. Temporary labor expenses *	lei	x	x	x
6. Insurance	lei	40	40	40
II. FIXED EXPENSES	lei	517,38	926,88	517,38
- Fixed labor expenses	lei	328,68	328,68	328,68
- General and management expenses	lei	53,4	53,4	53,4
- Interest on loans	lei	52,8	52,8	52,8
- Lease **	lei	x	409,5	x
- Depreciation for buildings and utilities	lei	82,5	82,5	82,5
E. (=)TAXABLE INCOME	lei	661,95	252,45	661,95
(-)Taxes	lei	105,9	40,4	105,9
(-)Lease **	lei	x	x	409,50
F. (=)NET INCOME + grants	lei	731,1	387,1	321,6
G. TAXABLE INCOME RATE (%)	%	23,5	7,8	23,5
H. NET INCOME RATE + grants (%)	%	25,9	12,0	11,4
COST OF PRODUCTION	lei/to	469,67	537,92	469,67
INTERNAL Foresight MARKET PRICE	lei/to	580	580	580

* These costs are included in medium-sized farms, large and very large.

** Up to 600 kg / ha at market price (500 kg / ha wheat = 1,3 coefficient x 650 kg wheat x 0,63 lei/kg = 409,5 lei)

4. Conclusions

Cereal crops through their necessity is not characterized by a rate too high profitability. It takes values between 6% to rice culture, 16-18% of wheat crop and 27-28% in six-howed and two-howed barley consumption.

Here therefore, that the corn crop is particularly important not to be characterized by high values of profitability. It is ultimately a form of protection of finished consumer food products obtained through consumption of maize grain feed.

References

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