

RESEARCH ON ECONOMIC AND TECHNICAL EVOLUTION OF THE MAIN INDICATORS FOR THE CEREAL GRAINS IN THE SUBURBAN AREAS OF IASI

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Abstract

Consumption needs for agricultural and food products evolve with the economic and social development. Providing optimum standards of food consumption is a difficult problem because of influences of different factors, including diversity and mobility needs of the consumer and the great variety of possibilities to meet them. For local producers to compete with producers of other districts and particularly those of foreign markets with competitive bidding, local producers must be to develop new elements of competitiveness (Brands, marketing innovations, supply services, adapting to the single market, major investment efforts, etc.). And adapt quality standards in production and marketing. This paper aims to analyze the results of the production of cereal grains in related communities perirbane area of Iasi in the period 2009-2011 as well as highlighting research on culture and territorial distribution of cereal grains in the same area. The analyze of the indicator' system pointed out that in Iași, corn is the best profitable culture, followed by: barley, wheat, rye and oat.

Key words: cereals, tehcnical and economical indicators, suburban area

Cereal grains have the largest share in the structure of field crops, both in Romania and abroad.

The low degree of intensification of agriculture, the lack of sound organization, caused mainly by Law 18/1991 - the law of the land, lack of funds, failure in favorability areas, failure in specific cultivation technology etc determined low efficiency of cultivation of cereal grains and simultaneous, low competitiveness on the market.

Issues in circulation of information and the price risk due to the prevailing contracts in Romanian agriculture causes a disorganized grain market for producers and for the intermediary. The present document is arranged so that it can be used as a model. It is also a template that can work on directly by replacing the corresponding paragraphs.

In the suburban area of Iasi municipality, composed of 12 communes (Table 1), it highlights some common specific features under this study. As it can be seen in the 12 communes studied, the profile of production includes grains, which explains the initiation of a study on the production potential and of the economic efficiency of the cereal crops.

MATERIAL AND METHOD

Research has been conducted for the suburban areas of Iasi and covered the period

2008-2010, targeting mainly analysis of the main technical and economic indicators realized in cereals culture. To achieve the research it was used a system of technical and economic indicators, which included: area planted, production, unit cost, selling price, gross margin, total income, standard gross margin, profit, rate of return (Chiran, A., și colab., 2001).

The indicators were analyzed in both dynamic and comparative cultures.

As can we seen in table 1, the total area of each villages, the arable land has different values from one year to another. The biggest difference is recorded in the village area cultivated Barnova.

Table 1

Suburban area of Iasi

Area	Surface (ha)	2008 (ha)	2009 (ha)	2010 (ha)
Aroneanu	3300	1038	1104	1216
Bârnova	4122	616	67	320
Ciurea	4772	1036	982	820
Holboca	5937	2040	2175	1644
Lețcani	5855	1560	1245	2279
Miroslava	8257	1535	1908	2664
Popricani	6926	1987	1802	1703
Rediu	4320	1019	988	770
Schitul Duca	12000	688	803	1030
Tomești	3711	675	675	261
Ungheni	4614	1600	1714	1680
Valea Lupului	1300	390	410	403
Victoria	6216	2683	2469	2632

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RESULTS AND DISCUSSIONS

Area planted with cereal grains had a slight decrease in 2009 compared to 2008 but in 2010, in areas with significant agricultural area, the area planted with cereal grains increased. Generally this area has increased due to increased area under

maize. Area planted with wheat and rye has decreased considerably, especially in 2009 as in 2010 that to grow (Table 1). Analyzing media productions and total productions is a decrease in 2009, this largely due to the unfavorable climatic conditions (table 2).

Table 2

Production cost, sale price

Area	Culture	2008			2009			2010		
		Prod. cost (lei/kg)	Sale price (lei/kg)	Total expenses (lei/kg)	Prod. cost (lei/kg)	Sale price (lei/kg)	Total expenses (lei/kg)	Prod. cost (lei/kg)	Sale price (lei/kg)	Total expenses (lei/kg)
Aroneanu	Wheat	0,29	0,43	0,29	0,48	0,49	1,03	0,30	0,45	0,30
	Barley	-	-	-	0,90	0,45	0,9	0,41	0,42	0,41
	Oat	-	-	-	-	-	-	-	-	-
	Corn	0,17	0,35	0,25	0,42	0,45	1,40	0,23	0,38	0,23
Victoria	Wheat	0,39	0,45	0,39	0,58	0,48	0,89	0,44	0,45	0,44
	Barley	0,41	0,42	0,41	0,43	0,45	0,98	0,42	0,42	0,42
	Oat	0,54	0,55	0,54	0,58	0,55	0,48	0,58	0,55	0,58
	Corn	0,23	0,34	0,23	0,40	0,44	0,83	0,24	0,38	0,24
Holboca	Wheat	0,29	0,45	0,29	0,48	0,50	1,02	0,42	0,45	0,42
	Barley	-	-	-	1,33	0,46	0,9	0,83	0,42	0,83
	Oat	0,48	0,55	0,48	-	-	-	0,58	0,53	0,58
	Corn	0,29	0,35	0,29	0,41	0,44	1,26	0,31	0,38	0,31
Ungheni	Wheat	0,39	0,45	-	0,74	0,49	0,96	0,27	0,45	0,27
	Barley	0,39	0,42	0,39	0,58	0,45	0,95	0,55	0,42	0,55
	Oat	-	-	-	1,84	0,60	0,92	0,65	0,55	0,65
	Corn	0,31	0,35	0,31	0,43	0,45	1,28	0,19	0,40	0,19
Tomești	Wheat	0,33	0,45	0,33	1,00	0,50	1,00	0,45	0,45	0,45
	Barley	0,60	0,42	0,60	1,20	0,45	0,91	-	-	-
	Oat	0,90	0,55	0,90	-	-	-	-	-	-
	Corn	0,28	0,35	0,27	0,43	0,45	1,08	0,24	0,40	0,24
Schitul Duca	Wheat	0,39	0,45	0,39	0,39	0,50	1,02	0,32	0,45	0,32
	Barley	0,24	0,42	0,24	0,59	0,45	0,88	0,23	0,42	0,23
	Oat	0,59	0,55	0,60	0,50	0,60	0,83	0,48	0,52	0,48
	Corn	0,38	0,35	0,28	0,40	0,45	1,01	0,18	0,37	0,18
Bârnova	Wheat	0,44	0,45	0,44	0,47	0,50	0,94	0,47	0,45	0,49
	Barley	0,80	0,42	0,80	-	-	-	-	-	-
	Oat	0,41	0,50	0,41	-	-	-	-	-	-
	Corn	0,30	0,38	0,30	0,34	0,43	1,00	0,18	0,42	0,18
Ciurea	Wheat	0,32	0,45	0,32	0,36	0,50	1,05	0,25	0,45	0,25
	Barley	0,24	0,40	0,24	0,39	0,45	0,97	-	-	-
	Oat	0,41	0,50	0,41	0,59	0,60	0,89	0,44	0,50	0,44
	Corn	0,26	0,38	0,26	0,29	0,45	1,09	0,32	0,38	0,32
Miroslava	Wheat	0,36	0,45	0,36	0,40	0,50	1,10	0,29	0,45	0,29
	Barley	0,38	0,40	0,38	1,00	0,50	0,95	-	-	-
	Oat	0,40	0,50	0,40	0,36	0,60	0,91	0,37	0,50	0,37
	Corn	0,23	0,35	0,23	0,28	0,42	1,10	0,25	0,39	0,25
Lețcani	Wheat	0,29	0,45	0,29	0,48	0,50	0,10	0,49	0,45	0,49
	Barley	0,34	0,40	0,34	0,78	0,45	0,89	0,63	0,42	0,63
	Oat	0,58	0,60	0,58	0,85	0,60	0,83	-	-	-
	Corn	0,24	0,36	0,24	0,45	0,45	0,85	1,92	0,38	1,92
Rediu	Wheat	0,88	0,45	0,88	0,60	0,50	1,01	0,35	0,45	-
	Barley	1,00	0,40	1,00	-	-	-	0,57	0,42	0,35
	Oat	-	-	-	0,95	0,60	0,95	1,92	0,55	0,57
	Corn	0,25	0,38	0,25	0,38	0,45	1,09	0,41	0,38	1,92
Popricani	Wheat	0,28	0,45	0,28	0,84	0,50	1,00	0,45	0,45	0,45
	Barley	0,49	0,40	0,49	0,89	0,45	0,88	0,28	0,42	0,28
	Oat	0,57	0,60	0,57	1,75	0,70	0,88	-	-	-
	Corn	0,20	0,35	0,20	0,40	0,45	1,19	0,81	0,41	0,18

The most affected crops were wheat and rye that achieved the largest deviations from the average, so the village Popricani was obtained an average of 1167 kg / ha to 4338 kg / ha in 2008

(Chiran, A., și colab., 2001). The culture was resistant corn, which showed insignificant deviations of the average production from year to year (table 3

Table 3

Total income, profit, rate of return

Area	Culture	2008			2009			2010		
		Total income ha (mii lei)	Profit (lei/ha)	Rate of return %	Total income ha (mii lei)	Profit (lei/ha)	Rate of return %	Total income ha (mii lei)	Profit (lei/ha)	Rate of return %
Aroneanu	Wheat	573,8	635	42,6	341,5	21	5,49	383,4	26	61,27
	Barley	-	-		5,8	-450		13	0	
	Oat	-	-						-50	
	Corn	1307,8	530		1152,9	100		1369,5	547	
Victoria	Wheat	693,5	148	36,8	320,6	-154	3,76	522,9	26	48,49
	Barley	14,3	20		158,9	58		8	0	
	Oat	8,3	20		1,7	-125		4,4	-50	
	Corn	2337,8	361		1703	19		2968,2	547	
Holboca	Wheat	873,9	691	30,4	532	54	5,99	670	58	15,81
	Barley	-	-		11,5	-590		12,6	-410	
	Oat	3,3	150					18,5	-68	
	Corn	1930,6	219		2224,2	103		1363,8	202	
Ungheni	Wheat	103,5	168	13,9	127,6	-332	-1,33	102,2	637	100
	Barley	15,5	86		29,7	-208		46,6	-210	
	Oat	-	-		1,2	-620		4,4	-137	
	Corn	1400	113		1985	72		3082,8	1059	
Tomești	Wheat	33,7	370	25,02	12,5	-445	-2,99	34,2	0	57
	Barley	16	-267		8,6	-568				
	Oat	16,5	-550							
	Corn	861	300		691,7	45		336	600	
Schitul Duca	Wheat	58,5	150	23,43	65	285	11,71	29,7	348	104,66
	Barley	33,6	720		13,5	-205		33,6	720	
	Oat	15,4	-55		3	170		31,2	61	
	Corn	777	245		821,3	115		1757,5	970	
Bârnova	Wheat	1,8	30	26,85	3	40	27,36	3,2	-63	100,93
	Barley	0,84	-380							
	Oat	10	190							
	Corn	640,7	214		81,7	281		709,8	1268	
Ciurea	Wheat	18,7	430	44,98	119	272	53,41	105,8	722	22,05
	Barley	1,9	650		6,7	155				
	Oat	4,9	180		9	10		8	120	
	Corn	1111	496		1497,6	620		873,2	160	
Miroslava	Wheat	540,5	275	43,91	606,5	284	47,88	437,8	485	56,55
	Barley	54,8	44		95	475				
	Oat	95,5	239		75	590		40	312	
	Corn	1561,4	534		2297,4	546		3557,8	556	
Lețcani	Wheat	479,3	618	49,68	191,5	48	-7,2	215,5	-61	-70,42
	Barley	54	175		14,4	-476		16	-267	
	Oat	27	30		6	-330				
	Corn	1735,6	483		801,9	-81		312,4	-646	
Rediu	Wheat	124,2	-463	13,53	271,5	-170	8	305	256	3,65
	Barley	44	-450					16,8	-220	
	Oat				1,2	-350		2,7	-571	
	Corn	923,3	496		847,7	213		385,7	-59	
Popricani	Wheat	1243,4	742	68,2	280	-392	21,35	324,5	6	98,49
	Barley	44	-170		28,4	-437		34	428	
	Oat	37,8	50		3,5	-425				
	Corn	1965,3	693		1679,9	128		2660	1123	

The most productive year for cereal was 2008, average production for 2010 is broadly in line with those of 2008. Cost of production is

directly proportional influence total production costs, which had a tendency to increase and inversely proportional to the average realized that

fluctuations introduced in 2008-2010. The higher production costs recorded in 2009, in most cultures it is almost 50% higher than the selling price. Production cost of corn has also been increased, not all villages, but the increases were not significant. For barley and oats the production cost was higher than the selling price for all years examined. The highest profit corn crop was recorded in 2010 in villages Popricani and Ungheni. Culture of barley and oats and barley in many cases showed negative results in terms of profit. Rate of return was calculated for each community. Letcani village obtained a rate of return for the years 2009 and 2010, also shared Tomești, Ungheni and negative values obtained in 2009. Municipalities with the highest rate of return are Schitul Duca and Bârnova. Apparently the economic and financial results are very good for the whole area under study, but if necessary facemcorecțiile subsistence costs adding to the total production amounts due and collected the forms of support from the European Union and the Romanian State notes that these positive financial results are completely annihilated, agricultural activity turning into a profitable activity.

CONCLUSIONS

Corn grains occupied the highest share of area planted with cereals and occupied the smallest barley and barley culture.

In the largest production analysis was done to corn grain.

Production cost at all cereals analyzed showed an increasing trend, which in some years exceeded the sales prices.

On average, throughout the period under review the highest incomes were registered in corn and all the villages taken into account.

From an economic perspective, the suburban area of Iasi, grain maize was the most profitable crop, followed by barley and wheat, barley and rye, while barley crop was uneconomical.

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