

FACTORS AFFECTING THE VEGETABLE FARMING EFFICIENCY IN BULGARIA

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Abstract

The efficiency is the major economic category, which measures the final result and the expenses related to the production and provides value expression. The article aims to analyze the prospects and conditions for the development of field vegetable production in Bulgaria. Field vegetable farming is a traditional and fast developing sector of the Bulgarian agriculture. Its condition and development is determined by the various natural and geographic conditions in the country and the experience in cultivating and farming vegetable crops, which are traditional for the Bulgarian population. The vegetable farming is organized in individual private agricultural farms and agricultural farming cooperatives and is performed in small areas. The crisis in the vegetable farming raised a lot of questions that need to be answered. It is necessary to overcome the decrease in vegetable production. This can happen by establishing efficiently operating organizational companies. The most important reasons for the reported decrease are the result of the improperly conducted reforms in the agriculture industry as a result of which the economic condition of the sector is declining. A serious flaw is that the farmers are selecting certain crop production without conducting any preliminary marketing and without any signed contracts for produce realization.

Key words: development, efficiency, factors, vegetable production

INTRODUCTION

Efficiency is a major economic category, which defines the value expression of the relation between the final results and resources used in the production process.

The aim of this article is to examine the efficiency as an economic category which defines the degree of utilization of production resources and the main factors affecting the development of vegetable farming in Bulgaria. In this article are indicated the specific features of field vegetable farming and the most important factors affecting its effectiveness.

The study of the efficiency is important as it enables us to establish the vegetable farming development trend, and to improve its competitiveness and market orientation.

MATERIAL AND METHOD

Bulgaria is a country with traditionally good opportunities to develop vegetable farming, determined by the variety of natural and geographical conditions of the country and the

experience of growing and farming vegetable crops, which are traditional for Bulgaria.

Field vegetable farming is a dynamically developing subsector of Bulgarian agriculture. Traditional vegetable crops as tomatoes, cucumbers and peppers are essential for the vegetable farming in Bulgaria. The production of fresh vegetables is of great economic importance for the agricultural sector.

Although after 1990 Bulgaria has lost its good positions as traditional producer and exporter of vegetables, vegetable farming remains an important subsector in agriculture due to its economic and social importance.

The production of vegetables is associated with high costs, which determines the higher cost of production and presents an obstacle for its realization. In 2010 are reported higher average yields for most of the major vegetable crops compared with the 2009.

An important condition for all vegetable producers is the most effective way to use production resources – land, equipment, labor and capital.

The level of efficiency in the field vegetable farming is a result of the needs and limited resources with which they have to be satisfied. In modern conditions, characterized by extreme shortage of resources, the increase of efficiency level contributes to greater competitiveness of the production.

Negative impact on the efficiency of vegetable farming, besides the high dependence on climate conditions, have a number of factors that form the economic conditions in the subsector: an unfavorable demographic trend in the population structure, high concentration of population in the cities, high average age of the workforce, relatively low degree of mechanization and low labor productivity, high fragmentation of arable land, lack of planning characteristic for the large farms (National Strategy for sustainable operational programs of the organizations and producers of fruits and vegetables in the Republic of Bulgaria for the period 2009 – 2013).

Vegetable farming is concentrated in the South Central and North Eastern areas where over 62% of the total quantity of fresh vegetables is

produced. In South Central are concentrated 44% of the vegetables.

Regionalization of production is one of the strengths of the sector affecting the efficiency. (National Strategy for sustainable operational programs of the organizations and producers of fruits and vegetables in Republic of Bulgaria for the period 2009 – 2013).

Higher average yields per hectare are observed for potatoes with almost 10%, tomatoes with about 18%, head cabbage and onion 22% and 65%, respectively. Higher yields for these vegetable crops are result of better farming practices of cultivation and use of high yield, and diseases and pests resistant varieties (Annual Report on Agriculture State and Development by Ministry of Agriculture and Food – 2011).

RESULTS AND DISCUSSIONS

The change in volume of production of major vegetable crops in Bulgaria is under the influence of factors such as arable area and average yield for the period 2001 – 2010.

Table 1

CROPS	PERIODS						TOTAL DEVIATION Thousand t	Incl. on account of	
	2001 – 2005 BASE			2006 – 2010 INDEX				AREA	YIELD
	AREA Thousand dca	YIELD Kg/dca	PRODUCTION Thousand/t	AREA Thousand dca	YIELD Kg/dca	PRODUCTION Thousand/t			
TOMATOES	127.1	2 061.4	262.0	45.8	2 028.4	92.9	- 169.1	- 167.6	- 1.5
CUCUMBERS	33.7	2 092.0	70.5	7.7	2 001.0	15.4	- 55.1	- 54.4	- 0.7
GREEN PEPPER	110.4	1 303.4	143.9	56.9	1 623.1	92.3	- 51.6	- 69.8	+ 18.2
ONION	40.4	866.3	35.0	14.8	932.4	13.8	- 21.2	- 22.2	+ 1.0
HEAD CABBAGE	51.0	2 244.8	116.5	21.9	2 589.0	56.7	- 57.8	- 65.3	+ 7.5
POTATOES	369.5	1 421.6	525.3	206.5	1 537.0	317.4	- 207.9	- 231.7	+ 23.8
WATER-MELONS AND MELONS	106.4	1 515.0	161.2	62.5	1 942.0	121.4	- 39.8	- 66.5	+ 26.7

1, 2 – Area and production do not include family gardens

By 1999 the total area of vegetables is about 158 – 168 thousand decares and after this period it is within 900 – 1 100 thousand decares, i.e. a reduction by 30-40%, which is clearly a negative trend. Compared with the base period 2001 – 2005, during the 2006 –

2010 period the areas with major vegetable crops decreased. Most notable is the reduction of the harvested areas with cucumbers – 4.37 times, tomatoes – 2.77 times, onions – 2.73 times, cabbage – 2.33 times, green pepper –

1.94 times, potatoes – 1.79 times, and watermelons and melons – 1.70 times.

The second major factor determining the volume of produce is the level of average yields, which is negligibly decreased for tomatoes – by 1.61% and for cucumbers – by 4.35%. For other vegetable crops there is a favorable trend which is reflected in the increase of values of this indicator for melons and watermelons with 28.18%, for the green pepper with 24.50%, for head cabbage with 15.33%, for potatoes – 8.12%, and onions with 7.63%.

The level of the average yield is low and is not consistent with the potential capabilities of the varieties used. Furthermore, there are many gaps in application of used technology.

The combination of the two main factors – area and average yield, leads to reducing the production of vegetables, potatoes, melons and watermelons, as the negative impact of the first factor is determining – the amount of produce from area unit. For the period 2006 – 2010, compared with base period, the decrease in vegetable production is with 354.8 thousand t, potatoes 207.9 thousand t, of melons and watermelons with 39.8 thousand t.

This illustrates the unsatisfactory condition of the vegetable farming in this moment.

From the data presented in Table 1 it is obvious that the total deviation of production of all vegetable crops during the 2006 – 2010 period compared to the 2001-2005 period, accepted as base, is with a negative sign. Most notable is the reduction for tomatoes with 167.6 thousand t, followed by green pepper with 69.8 thousand t, head cabbage by 65.3 thousand t, cucumbers by 54.4 thousand t, and onions with 22.2. For potatoes, melons and watermelons the decrease is 231.7 and 66.5% thousand t, respectively. For all crops the negative influence of the area size factor is determining the decrease in production.

CONCLUSIONS

The main problems in vegetable farming are the lack of good organization of vegetable growing, the reluctance of producers to associate in vegetable farming organizations, the lack of commercial arrangements between the producers and dealers for sale of the finished produce, low vegetable purchase prices and poor quality, lack of workforce in the production and use of unqualified workers.

The above problems affect the efficiency of vegetable farming and are one of the main reasons for the reduction of areas used for vegetable farming in recent years. To improve efficiency in the sector it would be better for vegetable farmers to focus their efforts on a certain production after thorough research of the situation, trends and competitiveness on the market.

Vegetable cultivation is traditional farming activity in Bulgaria and improving the vegetable farming efficiency should be a priority in the Bulgarian agriculture strategy.

REFERENCES

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