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# PREREQUISITES AND CONDITIONS FOR THE DEVELOPMENT OF BULGARIAN AGRICULTURE AND VEGETABLE PRODUCTION **CURRENT SITUATION, ISSUES AND PRIORITIES IN THE CONTEXT OF THE CAP**

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#### Abstract

Bulgaria has many years of experience, well-established traditions and vast opportunities in the sphere of agriculture and particularly in vegetable production. Vegetable production has been a traditional sub-sector of Bulgarian plant production. The development of this sub-sector is determined by the favorable natural, soil, climatic and geographical conditions in the country as well as by the rich production experience and national traditions of Bulgarian people over the years. Vegetable production forms 15% of the gross output of Bulgarian agriculture, which determines its importance for the agricultural sector in Bulgaria. The evaluation and analysis of the contemporary situation for the development of vegetable production are issues of current importance for Bulgarian agriculture in the context of the Common agricultural policy. The purpose of this article is to examine the prerequisites, conditions, status and issues associated with the development of agriculture and vegetable production in Bulgaria with a view to improving the economic performance.

Key words: agriculture, current situation, development, issues, vegetable production

# **INTRODUCTION**

Vegetable production has been a traditional sub-sector of plant production in Bulgaria. The presence of favourable natural and the climatic conditions, longstanding traditions. wealth of experience, the development of new technological solutions, the use of modern varieties with high biological potential outline the prerequisites and conditions for the development of Bulgarian vegetable farms. The good prerequisites for the development of vegetable production in Bulgaria determine the diversity of vegetables grown.

The membership of Bulgaria in the EU has made the CAP a key factor for the development of Bulgarian agriculture and more particularly, of vegetable production.[5] The purpose of this article is to present the prerequisites as well as modern condition and opportunities for the development of vegetable production in Bulgaria in the context of the Common agricultural policy.

# **MATERIALS AND METHODS**

То achieve the objective pursued, the statistical yearbooks and reference books of the National Statistical Institute (NSI) have been used as well as the agricultural reports of the Ministry of agriculture and food, newsletters of the Agrostatistics Directorate to the Ministry of agriculture and food, and own researches.

The accession of Bulgaria to the Common European market has revealed a number of prerequisites and opportunities for development in the agricultural sector. According to Bencheva [Bencheva,2012] Bulgarian farmers have access to the Single market of the European Union and therefore they benefit from its relatively stable prices and direct payments.[1]

In the conditions of the financial crisis, Bulgarian agriculture faces a difficult choice – farmers have to make serious investments in order to be able to meet the European requirements and standards related to food quality and environmental protection.

The application of the Common agricultural

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policy puts the competitiveness of Bulgarian agricultural production to a serious test - now it has to compete with the European production, which is relatively cheaper and more attractive in appearance. The import of fruits and vegetables affects the structure and volume of Bulgarian agricultural production. Bulgarian agricultural policy Therefore. priorities clear should have for the development of the sector and its transformation into a competitive and highly effective branch of Bulgarian economy.

Although in recent years the positive effect for the industry has found expression in significant support with European funding and increasing amount of national funds, in general, the agricultural production in Bulgaria is characterized by comparatively low competitiveness and insufficient market orientation caused to a great extent by the problems in the sector accumulated during the years of transition. Vegetable production is heavily dependent on the natural and climatic conditions in our country and in some cases the varieties used are not resistant to the changes of the natural conditions (drought, high humidity). Undoubtedly, the variety of climatic and soil conditions are good prerequisites for the development of vegetable production, having in mind that most crops are grown in the plains and lowlands of Bulgaria.

| Year | Total      | Tomatoes | Pepper | Cucumbers | Potatoes | Onions | Cabbage |
|------|------------|----------|--------|-----------|----------|--------|---------|
|      | vegetables |          |        |           |          |        |         |
| 2001 | 1567.4     | 272.6    | 141.3  | 62.5      | 600.4    | 36.0   | 138.5   |
| 2002 | 1583.5     | 221.4    | 164.6  | 73.5      | 627.3    | 38.0   | 109.4   |
| 2003 | 1834.5     | 398.0    | 208.6  | 56.1      | 450.1    | 42.2   | 138.0   |
| 2004 | 1590.0     | 238.0    | 125.9  | 87.0      | 573.0    | 45.0   | 117.0   |
| 2005 | 872.6      | 126.4    | 72.1   | 44.7      | 375.5    | 14.3   | 69.3    |
| 2006 | 1182.9     | 212.9    | 156.7  | 61.5      | 386.0    | 20.2   | 72.6    |
| 2007 | 803.5      | 133.2    | 81.7   | 57.2      | 298.7    | 10.6   | 50.0    |
| 2008 | 874.3      | 134.1    | 59.5   | 62.6      | 353.6    | 16.1   | 64.9    |
| 2009 | 734.9      | 104.2    | 71.5   | 78.0      | 231.7    | 8.22   | 39.4    |
| 2010 | 356.5      | 114.6    | 69.1   | 65.7      | 251.2    | 19.1   | 78.9    |
| 2011 | 368.0      | 103.1    | 66.3   | 58.6      | 232.3    | 16.6   | 44.6    |
| 2012 | 275.8      | 94.0     | 47.1   | 33.7      | 151.3    | 10.3   | 47.3    |
| 2013 | 260, 2     | 77.7     | 59.3   | 11,1      | 197.8    | 13.4   | 44.9    |

Table 1. Production of main vegetable crops in Bulgaria, in total and in crops, 2001-2013, (thousand tons)

Source: Ministry of agriculture and food, Agrostatistics Directorate 2001-2012

The analysis of the total vegetable production for the period 2001 - 2013, as well as the production of the main vegetable crops, shows that the total production of vegetables follows the unfavorable trend of decrease in production output. (Table1). The drastic reduction in production is due to a number of factors. The drop in production volumes can be explained not only with the reduced planted areas, but also with the strong competition in the sector.

# **RESULTS AND DISCUSSIONS**

Vegetable production also faces a number of issues such as lack of good production organization which is presently characterized by low technological level, large production costs, including high prices of seeds, fertilizers, plant protection products, irrigation water, lack of mechanization and use of human labor in harvesting. The low degree of organization among producers, lack of commercial arrangements between producers and traders regarding the realization of production, low purchase prices of the finished products, lack of manpower in production and use of low-skilled workers all these are among the pressing issues of the sub-sector awaiting to be solved for years.[4]

These are therefore the main reasons why the problems, status and development of the subsector have become a subject of scientific interest. In their studies, a number of authors

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reveal the reasons for the negative trend of development and they also outline some opportunities for its overcoming. According to Bogoev and Paskalev [Bogoev; Paskalev,2003] the present production and marketing system of vegetable products is highly fragmented and leads to chaotic marketing and price structure.[2]

According to Masheva [Masheva,2012] the development of vegetable production requires the creation of such production structures that with will comply both the national characteristics and traditions of Bulgarian people and with the European requirements and standards for food quality and safety, which will enable Bulgarian producers to take their worthy place on the European market.[3] The main trends in the selection of vegetable crops that to a great extent are good preconditions for increasing the competitiveness of field vegetable production can be summarized as follows:

-Breeding of varieties which have high overall resistance to diseases and pests, with opportunities for application of mechanized cultivation and harvesting of production, with excellent technology and taste;

-Creating varieties with a high biological value and valuable technological qualities;

All vegetable crops to be grown on irrigated areas with a lot of agricultural activities and the water to be unconditional cost for the production of vegetables. In order to take the utmost advantage of the natural resources – solar energy, soils, rainfall, as well as to increase the efficiency of land use, the following is necessary:

-Preservation of soil fertility by means of introducing an appropriate structure and crop

rotation, correct content of irrigation regulations in accordance with the biological peculiarities of the crops;

-The areas planted with vegetables should be designed so that they are in accordance with the irrigation method, irrigation equipment and other agricultural machinery in order to ensure high labour productivity;

The ways and methods for irrigation of vegetable crops are closely connected with the technical level of irrigation systems and implementation of industrial technologies.

The human factor is an essential resource for the production of vegetables. More than 50% of the people employed in the production and cultivation of vegetables are over the age of 55. The workforce which is a basic prerequisite for the development of the subsector is low-qualified and insufficient in number. The low profitability of those employed in vegetable production is another reason for the weak employment in this subsector. The technical security of vegetable producers is an important prerequisite and condition for the sustainable development of the activity. It contributes to the increase of labour productivity, improvement of product quality and decrease of costs and losses. An aggravated age structure and insufficient degree of technical security is observed in the majority of vegetable producers.

As a whole, there is a significant decrease in the number of people working in agriculture. In 2010 they were 738 thousands and their number is decreasing by 21 % in comparison with 2007. 88% of them are small family farms. The decrease in the number of family farms is associated mainly with the demographic problems in rural areas.

| Workforce  |           | Bulg      | Plovdiv Region |           |           |            |
|--|-----------|-----------|----------------|-----------|-----------|------------|
|  | Workforce | Family    | Non-family     | Workforce | Family    | Non-family |
|  | total     | workforce | workforce      | total     | workforce | workforce  |
| Number of<br>people working<br>in farms          | 738,634   | 681,466   | 57,168         | 65,835    | 60,856    | 4,979      |
| Labour invested<br>in Annual Work<br>Units (AWU) | 389,107   | 336,766   | 52,341         | 34,102    | 29,587    | 4,515      |

Table 2. Workforce - total for Bulgaria and for Plovdiv region

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Manual labor is indispensable in outdoor vegetable production, with a high degree of mechanization of the work processes – manual earthing, gravity irrigation, cleaning, sorting and loading of production and others. The high labour intensity and the lower degree of mechanization in most vegetable crops are among the reasons why lowqualified seasonal workforce, not interested in the final economic results, is used during the tensest periods.

Bulgarian vegetable production has been experiencing considerable difficulties in adapting to the new market situation ever since 2007 and it finds it difficult to develop its economic and industrial potential.

# CONCLUSIONS

The presence of a great number of small-scale producers, the lack of production planning, insufficiently effective marketing and distribution of agricultural production, weak professional organizations - all these are prerequisites that create difficulties for the development of vegetable production. By establishing associations and organizations vegetable producers would have much greater opportunities for market research as well as for better realization of their production.[4]

The reduced market consumption in Bulgaria, low-qualified and aging workforce and the growing share of informal sector are among the major issues of vegetable production that impose the need to perform a research, analysis and evaluation of its condition as a whole and its degree of readiness for implementing the Common agricultural policy as well as the need of agricultural policy for sustainable development of this traditional Bulgarian sub-sector.

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