

UDC 635.52.631:581.19.41

ECONOMIC AND SOCIAL ASPECTS OF MODERNIZATION OF MARKETABLE AND SEED CROPS PRODUCTION OF VEGETABLES, MELONS AND POTATOES

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The article is about the pillars of the modernization of economic and social aspects which ensures the sustainable development in vegetable, horticulture and potato sectors of agriculture. Therefore the authors noted the most important measures for the production development of the competitive marketable and seed products.

Keywords: *priority development directions of vegetable and potato-growing, variety promotion, ecological breeding, initial seed production*

Introduction

Vegetables, melons and potato products play an important role in person's physically and mentally healthy life, restoration of the work ability and his active longevity. By adoption of these products per day, the body provides important biologically active substances, improves metabolism, regulates the activity of the nervous system. It also increases the body's adapting ability to the impacts of environmental stress.

According to the latest statistics 7 types of vegetables and potato crops in the wide range of multi-vegetables and herbs differ with priority status due to their range and useage (fresh and processed products in different form) in the country (table 1).

It is known that in 2015, the total area of the country vegetable crops had an increase of 75730 hectares and total production 1 million 193.4 thousand tons, while the average yield reached 157.6 cents / ha. The total sown area of tomato plants, one of the leading vegetable crops remained 24672 hectares, harvested crop 465991,3 tons, while average productivity was 188.9 cents / ha.

Seed sowing area of annual vegetable crops is 51 hectares, harvested crop is 25.5 tons, while average productivity remains 5.0 tons in the Republic.

There is special attention to its diversification for reducing dependence on oil in the de-

velopment of the national economy and increasing the share of agriculture sector in the formation of the state budget. Thus the focus on the creation of productive varieties of agricultural crops, application of the most advanced technologies and the expansion of initial and I-reproduction of seed production is increased.

Not surprisingly, president of the Republic of Azerbaijan, Mr. Ilham Aliyev signed special decree (5 July 2016) related to meeting the demand for seeds of the high-quality and efficient plant varieties, increasing seed production, including seed treatment, packaging, labeling and storage, and gave an order of 12.0 million allocation for the implementation of this work.

Currently, 914 gene pool items of 19 sorts of vegetables and melons, including 265 genotypes of tomatoes for open and covered area are preserved in the fund of Vegetable Research Institute. "Breedit mobile" project has been working jointly with Israel to organize seed-growing of a few vegetable crops, as well as tomatoes in accordance with international standards.

Absheron, Guba-Khachmaz, Lankaran-Astara and Nakhichevan AR are still known as traditional regions for vegetable, melon and potato-growing, since 1965. Today, in this direction, there are more than 10 regions and their districts in the country.

Table 1

The forecast status on meeting the demand of the population for vegetables, melons and potatoes through domestic production for 2016 (Population, 9.7 million. Persons (December, 2015))

<i>Product name</i>	<i>Planting area, thousand hectares</i>	<i>Per capita annual consumption rate, kg</i>	<i>Total demand, tons</i>	<i>Produced, tons</i>	<i>Demand for the remaining part, tons</i>
Tomato	26000	22,9	222,13	442,0	219,87
Aubergine	6000	5,3	51,41	96,0	44,59
Pepper	1500	1,3	12,61	24,0	11,39
Sweet pepper	3000	2,6	25,22	52,5	27,26
Cabbage	6400	5,7	55,29	160,0	104,71
Onion	12500	11,0	106,7	250,0	143,3
Garlic	2500	2,2	21,34	32,5	11,16
Cucumber	14000	12,3	119,31	168,0	48,69
Bean	500	0,44	4,27	6,0	1,73
White cane	600	0,53	5,14	16,8	11,66
Carrot	850	0,75	7,28	14,03	6,75
Melon	9700	8,5	82,45	145,5	63,05
Watermelon	20300	17,8	172,66	385,7	213,04

The ratio of consumption-0,879

In recent years in all regions of the country, vegetables, melons, greens and potatoes are grown with quite different cultivation technologies in condensed and recycled crops (table 2).

The potato is a product which has strategic importance in terms of securing the country's population. According to official statistics from previous years, the total area of the potato crop in the country has changed 67,6-69,9 hectares, including 819,3-992,8 tons of the total amount of produced product and 138.3 quintals of productivity per hectare.

According to the statistics of the current year, the total area of the potato crop has an increase of 62791.0 hectares, the accumulated total harvest 870904 tons, while the average yield has 137.2 cents / ha, compared with 2015.

The basis of the idea about the modernization of agricultural production was founded by National Leader Heydar Aliyev in 1995. Although during the next few years 6 regional complex programs were adopted by the State on the development of the agricultural sector and was spent up to \$ 488 million for this purpose, but yet the demand for basic food crops, especially for grain (for example, wheat-1 mil-

lion. 353 thousand tons, barley-53 thousand 898 tons, oats-378; corn-181 thousand 652 tons; buckwheat, millet and other grains- 3 thousand 216 tons etc.) are paid by imports.

Calculations have shown that, if the productivity of vegetables and melons increase 20 quintals per hectare, then during the year, production of these products will increase 563.5 thousand of tons, annual production capacity reaches 2 million 135 tons. Thus the potential for the export of goods to foreign markets will significantly increase.

In connection with the transition to a new agricultural policy, as in other areas of agriculture also in the field of vegetable-growing the restructuring process of previously formed commodity relations continues in terms of the requirements of a market economy.

Increasing the volume of production of those products, improving the quality, expanding the range and eliminating dependence on seasons are the most important requirements in order to ensure food security of the population, as well as to meet the demand for vegetable and potato products in accordance with physiological norms.

Table 2

**Statistical data on the production of potato in the republic, in January-September 2016
(State Statistics Committee's newsletter, I-IX months, 2016)**

<i>Economic regions</i>	<i>Sown area, ha</i>	<i>January-September 2016</i>			<i>2015</i>	
		<i>Harvested area, ha</i>	<i>%</i>	<i>Harvested products, tons</i>	<i>Harvested area, ha</i>	<i>Harvested products, tons</i>
Total on Republic	62791,0	61951,0	98,7	870904,0	35152,5	506836,0
Absheron economic region	63,0	63,0	100,0	461,0	21,0	115,0
Ganja-Gazakh economic region	31163,0	30537,1	98,0	448182,0	10046,0	179700,0
Sheki-Zagatala economic region	4977,0	4977,0	100,0	57219,0	4570,0	49909,0
Lankaran economic region	9968,0	9925,0	99,6	162049,0	7882,1	123302,0
Guba-Khachmaz economic region	4437,0	4354,5	98,1	50905,0	1930,0	20444,0
Aran economic region	5938,0	5938,0	100,0	73100,0	6435,1	80683,0
Upper Karabakh economic region	1326,0	1326,0	100,0	17225,0	1221,0	16230,0
Kelbadjar-Lachin region	0,3	-	1,0	0,3	1,0	40,0
Mountainous Shirvan economic region	1849,0	1807,0	97,7	1593,2	877,0	6490,0
Nakhchivan AR	3053,0	3007,0	98,5	45711,0	2160,0	299.33

Fortunately, in recent years production and consumption of vegetables, melons and potato crops by the population are not only paying ever-increasing demands of the people in the country, but also are partially moved to the markets of foreign countries for being sold.

According to scientific estimates every person should consume 115-145 kg of vegetables in a year. On the basis of approval of the minimum consumer basket under the decision of the Cabinet Ministers of Azerbaijan (April 30, 2009, number 74) 95.7 kg vegetables and melons, including 46.7 kg of potatoes (total 142.4 kg) were identified as per person product during a year. According to these norms 1,12-1,41 million tons of vegetables should be produced over the year for the provision of the country's population. It should be noted that, in 2015, 1,567 thousand tons of vegetables and melons, 827 thousand tons of potatoes were produced.

If we compare it with statistical datas of a number of countries around the world, of

course, these figures are encouraging. But comparison with the level of production and consumption of vegetables, melons and greens assortments per person, using the experience of the Netherlands, the United States, Spain and other countries is more recommended.

To our opinion, the purpose of developing vegetable, melon and potato sorts in the scientific basis is to create new high-yielding varieties, hybrids and to develop their effective cultivation and seed production technologies considering the climate-land characteristics of different regions:

1. Necessary funding for developing complex and targeted scientific and technical programs, and financing scientific research and experimental design works (services);

2. The implementation of the state program to strengthen scientific and human resources potentials of material-technical base of the agricultural research institutions;

3. In the sustainable agriculture (organic farming) to restore ancient varieties of many vegetables and melons (ancestors), the acquisition of new varieties and hybrids (naturalization and acclimatization) that are suitable and adapted for the particular soil and climatic conditions, and the storage and use of the new available genetic resources are the main requirements of today;

4. It is important to start the selection studies about plants on environmental grounds in the country with the support of a special state program. The settlement of such plant breeding and seed production programs will allow the creation of new varieties, hybrids, and potato clones for the regions which have different climate-soil conditions and natural-economic opportunities. They are resistant to major diseases and pests, strong in competition with weeds and suitable for supply conditions of the local soil types.

5. Accelerate the introduction of new methods in biotechnology and ICT technologies on conducting research in plant breeding and seed production appropriate for modern requirements, and development of the traditional breeding of vegetable and melon crops on the basis of ecological selection methods require development of new varieties of seed production through modern science. It is advisable to carry out the work in the state breeding centers and their base farms which maintain logistic, technological and chemical conditions.

6. Improving the economic efficiency of production through diversification of plant varieties which are suitable for the soil-climate conditions of the regions by using modern technology;

7. The establishment of relations with the knowledge of the agricultural world, the study of best practices, assisting in the training and exchanging of specialists according to priority areas;

8. Preparation of agricultural calendars, newsletters, books for private entities, supporting organization of programs in the press, etc.

Finally, it is possible to draw the following conclusions on the country's vegetables, melons and potato production by summarizing the above-mentioned information:

1. It is necessary to expand planted areas over the regions and to increase the production in order to meet the future supply of the population for potatoes, vegetables and melons;

2. There is a need to expand the range of vegetable crops (cabbages, vegetables, bulbous vegetables, red beet, peas, carrots, lettuce, etc.) arable lands and varieties in different regions;

3. Speed up the creation of modern, medium and large-scale storage and processing facilities to improve living conditions for storage, sorting, processing and transportation of vegetables, melons and potato products in order to meet demands of the local market and to increase exports to foreign markets;

4. Development of agropark-like complex production and processing enterprises is a priority direction for the future with the aim of a continuous supply of the population with fresh vegetables and melons in the autumn and winter seasons.

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AZƏRBAYCANDA TƏRƏVƏZ, BOSTAN VƏ KARTOF BİTKİLƏRİNİN ƏMTƏƏLİK VƏ TOXUM MƏHSULLARI İSTEHSALININ MODERNLƏŞDİRİLMƏSİNİN İQTİSADI-SOSIAL ASPEKTLƏRİ**Ə.Н. Babayev, Z.К. Əliyeva, V.А. Babayev**

Məqalədə aqrar sahənin tərəvəzçilik, bostançılıq və kartofçuluq sektorlarının davamlı inkişafına təminat verən iqtisadi-sosial aspektlərin modernləşdirilməsinin əsaslarından bəhs olunur. Müəlliflər bununla əlaqədar rəqabətə davamlı əmtəəlik və toxumluq məhsulların istehsalının genişləndirilməsi üçün həlli vacib olan tədbirləri qeyd etmişlər.

Açar sözlər: tərəvəzçilikdə və kartofçuluqda prioritet inkişaf istiqamətləri; çeşidlərin artırılması, ekoloji seleksiya, ilkin toxumçuluq

ЭКОНОМИКО-СОЦИАЛЬНЫЕ АСПЕКТЫ МОДЕРНИЗАЦИИ ПРОИЗВОДСТВА ТОВАРНЫХ И СЕМЕННЫХ УРОЖАЕВ РАСТЕНИЙ ОВОЩЕ-БАХЧЕВЫХ КУЛЬТУР И КАРТОФЕЛЯ В АЗЕРБАЙДЖАНЕ**А.Г. Бабаев, З.К. Алиева, В.А. Бабаев**

В статье освещены экономико-социальные аспекты модернизации устойчивого развития секторов овощеводства, бахчеводства и картофелеводства в аграрной области республики. Авторами статьи отмечен ряд важных мер в целях увеличения производства конкурентоспособных товарных и семенных урожаев этих культур.

Ключевые слова: приоритетные направления развития в овощеводстве и картофелеводстве, увеличение ассортимента, экологическая селекция, первичное семеноводство