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**THE ROLE OF THE ORGANIC AND GLOBAL G.A.P. STANDARD IN THE EXPORT OF FRUIT  
AND MELON PRODUCTS**

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**ABOUT ARTICLE**

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**Abstract:** The position of exporters in international markets is measured by the competitiveness of their products and opportunities for competitiveness.

One of the most important tasks facing commodity producers exporting their products to the world food markets today, along with the assessment and direct determination of the level of competitiveness of these products, is to improve the habitat and increase biological diversity on crop sites, the use of comprehensive pest protection, providing crops with nutrients, preserving water resources and increasing biological diversity in agriculture.

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**INTRODUCTION**

The Republic of Uzbekistan is famous not only for the cotton fiber it grows, but also for its fruits and vegetables, grapes and citrus products, which are loved by the people of the whole world. The fruits and vegetables, grapes and sugarcane products grown in Uzbekistan are highly competitive in the world agricultural products market due to the unique climate conditions. The international Global G.A.P. has

the highest indicators in the world for the development of the agricultural sector, the improvement of the quality of agricultural products, the study and analysis of standards aimed at ensuring quality in the production and processing of agricultural products in the world, as well as ensuring their international competitiveness. implementation of the standard in Uzbekistan is one of the things that should be done now.

Today, Uzbekistan has great potential in the field of comprehensive protection of agricultural products against pests and their export. Establishing the production of products intended for export in the agricultural sector and raising the processing industry to a leading position will ensure sustainable economic growth in agriculture. Solving this task, as the President of our country Sh.M. Mirziyoev has repeatedly stated, requires improving the quality of agricultural products and the efficiency of enterprises processing them, and further expanding domestic and foreign sales markets.

### Methodology

At the same time, increasing the export potential of orchard and vegetable products in our country, as well as the efficiency of the activities of its growers and producers, first of all, creates the need to implement international standards, taking into account the specific characteristics of agriculture and water management. That is why it is necessary to create methods of introducing international standards in orchards and orchards growing agricultural products. The international Global G.A.P. The role and importance of introducing the standard is one of the most important factors.

There is a need to develop a new standard for the safety of agricultural products in the commercial sector, in order to minimize the threats related to food safety in the business of orchard and vegetable exporters. The resulting standard was named Eurep GAP: (Euro-Retailer Produce Working Group) - the European working group on food retail issues and GAP (Good Agricultural Practice) - the practice of improving agriculture.

### Discussion and results

Global G.A.P. is the first-level standard for the production of orchard and fruit products in the agriculture of our republic, a regulatory document that covers all production processes from the time of planting agricultural crops to harvesting. Global G.A.P. standard EUREP G.A.P. (a private agency that sets standards and requirements for certification of agricultural production processes worldwide) is published by. Currently, more than 180,000 manufacturers in 124 countries of the world have this certificate.

The main purpose of this standard is to reduce the level of damage caused by various harmful organisms and the chemical agents used against them by monitoring all aspects of the agricultural production process.

Global G.A.P. The implementation of the standard consists of the following stages:

- analysis of the condition of the production farm. Global G.A.P. preliminary audit of compliance with requirements;

- Global G.A.P. conduct preliminary audit in accordance with the requirements of the standard;
- economic workers Global G.A.P. to familiarize with the requirements – holding an introductory/training seminar. Global G.A.P. development of programs for the introduction of;
- introduction of the system of necessary documents in accordance with standard requirements;
- identification and assessment of possible risks in the cultivation process and methods to prevent their occurrence (hygienic, ecological, chemical, biological, physical, etc.);
- introduction of registration systems of necessary agrotechnical measures in all aspects of production;
- Global G.A.P. in the agricultural sector. provision of consulting services in the organization of the implementation of the quality system in accordance with the requirements;
- Global G.A.P. providing advice on the implementation of labor protection rules, environmental safety and sanitary standards in production in accordance with the requirements;
- development of an identification and tracking system, introduction of procedures for product assessment;
- Global G.A.P. conducting an internal audit in accordance with the requirements;
- Global G.A.P. to submit an application to the Certification Office, provide advice during the certification audit by an independent certification office.

Employees are trained at all levels. The new Global G.A.P. is recognized for the certification of the production technology, rather than the finished product, because the previously accepted system of product quality and safety control was not effective enough. certification system was developed. This system creates conditions for the accumulation of harmful chemicals in products and their protection from microbiological and mechanical pollution.

Global G.A.P. certificate is a guarantee of full compliance with all requirements and recommendations regarding quality and safety during the cultivation of a specific agricultural product.

Global G.A.P. during the certification process, a full inspection of all agrotechnologies during the cultivation of agricultural products is provided. Agrotechnology of product cultivation includes:

1. Soil. 8. Product storage.
2. Seed/seedling materials. 9. Qualification of employees.
3. Fertilization system. 10. Labor hygiene and technical safety.
4. Watering. 11. Technical condition.
5. Integrated plant protection system. 12. Product Tracking.

6. Harvesting. 13. Environmental protection.

7. Complete post-harvest work.

International practice experience Global G.A.P. confirmed the advantages of the transition to the certification system, showing a reliable increase in food safety and a decrease in the risk of product counterfeiting, as well as a reduction in costs directed at the process of conformity confirmation.

This system will help to introduce a single generalized quality assurance system in the international community, ensure coverage of the entire product movement path, prevent repeated quality audits, eliminate the possibility of falsification and increase the level of satisfaction of the growing demands of consumers. Worldwide Global G.A.P. The number of organizations that have received a certificate through the introduction of the standard is growing every year.

Today, in more than 100 countries of the world, Global G.A.P. standard is used. In most of these countries, a national technical working group for the implementation of this standard has been formed and Global G.A.P. based on national standards have been adopted. For example, Chile GAP-Chile national standard, AMA GAP-Australian national standard, QS-GAP-German national standard, New Zealand-New Zealand national standard, JGAP-Japan national standard, China GAP-Chinese national standard, etc.

Taking into account the above points, the main object for testing bacterial preparations against orchard pests was Apple fruit borer (*Carpocapsa pomonella* L.) and pear fruit borer (*Laspeyresia pomonella* L.), which are common in apple and pear orchards of Jizzakh and Tashkent regions. Damage to apples and pears was noted in orchards selected for control, which was also taken into account when testing preparations.

The presence of pests at all stages of tree development was visually determined by inspecting tree trunks and individual branches (Figure 1).



**Figure 1. Counting and identification of *Carpocapsa pomonella* and *Laspeyresia pomonella* in apple and pear orchards of Tashkent and Jizzakh regions.**

Experiments conducted in Jizzakh and Tashkent regions at the beginning of May 2022 showed that the percentage of damage to *C.pomonella* was  $33.3 \pm 4.18\%$  on average, and the percentage of damage to *L.pomonella* was  $36.1 \pm 6.24\%$  on average does. In field experiments, *Bacillus thuringiensis* 1.1011

KOE/g and *Bacillus thuringiensis* var. *thuringiensis*, BA-3000 EA/ml. bacterial preparations prepared from entomopathogenic bacteria were tested (tables 1-2).

**Table-1**

**Biological efficiency of “Bioslip BT and Prestige plus” biological preparation against apple worm and pear fruit borer (Bakhmal district, Jizzakh region, June 2022.)**

№	Variant	Consumption rate, l(kg)/ga	Average number of pests per tree (apples and pears) (units)				Biological efficiency %	
			Apple worm		Pear fruit eater		Apple worm	Pear fruit eater
			Before processing	After processing	Before processing	After processing		
1.	Prestige plus, em.k	6, 0	54,5±8,3	-	266,0,±3,0	-	100%	100%
2.	Bioslip BT, powder.	3,0	78,1±1,8	6,0±3,0	304,0±1,8	20,5±6,0	86,9	89,0
3.	Model - Bagira, 20% em.k.	0,3	68,6±1,2	3,7±1,0	296,0±3,3	14,3±6,0	93,4	92,3
4.	Control (idle)		60,5±1,1	46,7±1,2	260,0±3,0	182,0±2,4	-	-

Tested as biological preparations: Prestige plus, em.k 6.0 l/ha. and Bioslip BT, cook. 3.0 kg/ha. consumption is normal. As an example, Bagira 20% em.c. 0.3 l/ha. amount of chemical preparation was obtained. Taking into account the natural death of pests under the influence of various factors, the untreated option served as a control.

The total area of the experimented garden is 0.5 ha, and the treatment with biological preparations and the norm was carried out in apple and pear orchards in Bakhmal district of Jizzakh region on June 10 and 25, 2022 in conditions of air temperature of +30°C. Determination of biological effectiveness of drugs was carried out 15 days after treatment according to the formula Biological effectiveness against pests. On the 5th day after the second treatment, compared to the control, Prestige plus, em.k. biological efficiency of the drug was 100%.

Trees Bioslip BT, kuk. when treated with, biological efficiency against *C. pomonella* was 86.9%, biological efficiency against *L. pomonella* was 89.0%. Bagira, 20% em.k. in the variant treated with chemical insecticide, the efficiency was 93.4-92.3%. In addition, the death of worms was already observed on the 3rd day after treatment.

It was carried out on May 10 and 25, 2022 in apple and pear orchards in Qibray district of Tashkent region, in conditions of +25°C air temperature. Determination of biological effectiveness of drugs was carried out 15 days after treatment according to the formula Biological effectiveness against pests. On

the 5th day after the second treatment, compared to the control, Prestige plus, em.k. The biological efficiency of the drug was  $98.2 \pm 4.2\%$  in apple fruit borer and  $97.6 \pm 3.4\%$  in *L.pomonella*.

**Table-2**

**Biological efficiency of "Bioslip BT and Prestige plus" biological preparation against apple worm and pear fruit borer (Kibray district, Tashkent region, May 2022)**

№	Variant	Consumption rate, l(kg)/ga	Average number of pests per tree (apples and pears) (units)				Biological efficiency %	
			Apple worm		Pear fruit eater		Apple worm	Pear fruit eater
			Before processing	After processing	Before processing	After processing		
5.	Prestige plus, em.k	6, 0	$81,5 \pm 2,19$	$1,5 \pm 0,50$	$68 \pm 2,77$	$2,0 \pm 0,58$	$98,2 \pm 4,2$	$97,6 \pm 3,4$
6.	Bioslip BT, powder.	3,0	$79,9 \pm 2,52$	$2,0 \pm 0,58$	$70,0 \pm 2,81$	$2,7 \pm 1,20$	$96,2 \pm 3,2$	$95,4 \pm 4,2$
7.	Model - Bagira, 20% em.k	0,3	$78,3 \pm 2,10$	$2,6 \pm 0,51$	$76,6 \pm 3,36$	$2,3 \pm 0,88$	$97,6 \pm 3,8$	$96,4 \pm 3,7$
8.	Control (idle)		$83,7 \pm 2,26$	$1,3 \pm 0,33$	$71,5 \pm 3,12$	$1,7 \pm 0,33$	-	-

Trees Bioslip BT, kuk. when treated with, biological efficiency against *C.pomonella* was  $96.2 \pm 3.2\%$ , biological efficiency against *L.pomonella* was  $95.4 \pm 4.2\%$ . Bagira, 20% em.k. in the variant treated with chemical insecticide, the efficiency was  $97.6 \pm 3.8-96.4 \pm 3.7\%$ . In addition, the death of worms was already observed on the 3rd day after treatment.

**CONCLUSION**

Currently, there are no internationally recognized or harmonized normative documents that ensure the quality and safety of agrotechnical activities during the cultivation of agricultural products in our republic.

This situation is caused by consumers in international (European) markets Global G.A.P. in the period when the certificate is required, the neglect of this standard by the farms of our republic may create obstacles in gaining a place for our agricultural products in the international markets. Currently, one of the important issues is to increase the export, quality and competitiveness of agricultural products grown in our country, as well as to eliminate technical barriers to trade. Global G.A.P. in Uzbekistan there are a number of difficulties in implementing the standard and solving the issues of product certification processes based on it and effective control of the quality of exported agricultural products in accordance with international requirements. For example, the lack of testing centers and laboratories

that meet international requirements, Global G.A.P. lack of a certification office according to the standard and lack of qualified specialists, etc.

According to the obtained results, Prestige plus (6.0 l/ha), Bioslip BT, kuk. and neonicotinoid - Bagira 20% (0.3 l/ha) was recommended to be widely used in the production of microbiological preparations for these pests.

Therefore, in order for our republic to take a strong place in the international markets of agricultural products, the Global G.A.P. It is desirable to be certified according to the system.

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