

Phytosanitary Examination: Ukraine Experience and International Standards

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Abstract

The article explores Ukraine's experience in conducting phytosanitary expertise based on international standards. It was stated that Ukraine should develop a series of draft in national legislation in the field of quarantine and plant protection, which would be adapted to the legislation of the European Union and at the same time meet the requirements of the International Plant Protection Convention. It has been emphasised that Law of Ukraine No 2501-VIII "On Amendments to Certain Legislative Acts of Ukraine on Regulation of Some Phytosanitary Procedures" came into force on February 2, 2019. It has been concluded that Ukraine is currently actively applying international standards, participating in their development and registering official translations of international standards for phytosanitary measures. This creates a positive image of Ukraine as a reliable trading partner that does not violate the requirements of other countries and guarantees the conformity of product quality, phytosanitary procedures to internationally recognised standards. Therefore, for qualified phytosanitary examinations, the mechanism of guaranteeing compliance with national and international standards, amending legislation, introducing effective penalties for violation of the rules and procedure for conducting phytosanitary examinations should be a promising area.

Keywords: *World Trade Organisation, phytosanitary control, international organisations, phytosanitary sector.*

Introduction

Membership of Ukraine in international organisations, in particular in the World Trade Organisation (hereinafter—the WTO), the International Convention for the Protection of Plants (hereinafter – the IPPC), the Food and Agriculture Organisation of the United Nations (hereinafter – the FAO), provides for mandatory observance of the basic principles and requirements in the field of quarantine and plant protection at the international level. In view of this, the State Consumer Service of Ukraine is actively working on the harmonisation and adaptation of national phytosanitary legislation to international norms and standards. Accordingly, the requirements for the level of work of the National Organisation for Quarantine and Plant Protection are increasing. Ukraine needs to develop a series of draft national legislation in the field of quarantine and plant protection, which would be adapted to European Union legislation and at the same

time meet the requirements of the International Plant Protection Convention.

It is worth noting that Ukraine has partially implemented some structural reforms in the phytosanitary sector, but these processes require constant state support and stimulation, international coordination, which will contribute to the development of agriculture in general. Such coordination can be undertaken primarily in the framework of international universal organisations within the UN system, in particular within the FAO. Thus, the revised International Standards on Phytosanitary Measures (ISPM) were adopted at the 13th session of the Commission on Phytosanitary Measures (2018): ISPM No 5 – Glossary of Phytosanitary Terms; ISPM No 6 – Supervision; ISPM No 15 – Wood Packaging Regulation in International Trade (Appendix 1 – Approved Wood Packaging Approaches (2018) and Appendix 2 – Sign (Marking) and its Use (2018)); ISPM No 42 – Requirements for the use of temperature treatments as

phytosanitary measures.¹ Ukraine has also participated in the discussion and adoption of these standards. These standards are actively used by both quarantine and plant protection professionals and manufacturers to ensure that their products comply with international phytosanitary legislation. In addition, on February 2, 2019, Law of Ukraine No 2501-VIII “On Amendments to Certain Legislative Acts of Ukraine Regulating the Implementation of Some Phytosanitary Procedures” came into force. Among the innovations are the granting of the right to carry out expert examination to private laboratories, new terms in the field of plant quarantine and the creation of the Register of Phytosanitary Certificates issued.² According to the Law, private laboratory specialists were granted the right to carry out plant phytosanitary examination. However, only exporters can use these services. The owner of the cargo can choose in which laboratory to carry out an analysis—public or private.

In order to use the services of a private laboratory, the exporter must inform the regional representatives of the State Consumer Service of Ukraine about: transport, cargo, date and time of the beginning of the analysis by specialists of a private laboratory. The fact is that a private laboratory can carry out the analysis on its own, but the state representative must monitor the sampling and inspection of a cargo. Then the samples are packed in safe packages, the state phytosanitary inspector signs the act on the sampling, so the products are sent for examination. Phytosanitary examination report is valid for 14 days.

Many scientists and researchers study the methodology and technical features of expertise procedure, in particular, V.A. Makarov, V.P. Frolov, M.F. Shuklin, A.O. Kunakov, I.G. Seryogin, G.A. Talapov and others. Special attention should be paid to the scientific developments of V.I. Khomenko, V.L. Shablii, N.K. Oksamitny, G.N. Kruglyakov, who have improved the method and method of performing examinations. V.V. Vlasenko, R.Y. Kravtsov, V.I. Khomenko and others in their studies considered the procedure of documentation preparation and discussed the effectiveness of expertise procedures. I.V. Gushchuk, E.G. Slautenko study the issues of water and air pollution, which directly affects the efficiency of crops. At the same time, the issues of substantiation and modern peculiarities of exactly phytosanitary examinations procedure deserve due attention.

The aim of the article is to consider and analyse the necessity of designation and peculiarities of carrying out phytosanitary examinations in modern conditions in Ukraine on the basis of international experience and international standards.

Analysis of Organisations Dealing with Phytosanitary Expertise: Standardisation covers most areas of human activity. The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) places particular emphasis on the role of international standards in establishing a multilateral system of rules and requirements governing the development, adoption and application of sanitary and phytosanitary measures to minimise their environmental impact. Thus, Article 3 of the SPS Agreement refers to international standards:

- In order to harmonise sanitary and phytosanitary measures on a broader basis, members should base their sanitary and phytosanitary measures on international standards, recommendations, if any, unless otherwise provided in this Agreement, and in particular in paragraph 3;
- Sanitary or phytosanitary measures that are consistent with international standards, recommendations, are necessary for the protection of life or health of humans, animals or plants and do not contravene the relevant provisions of this Agreement and GATT 1994.

Of particular importance is paragraph 2 of Art. 3 of SPS agreements. Taking into account the text of the preamble, the Agreement contains a direct reference to the standards developed by these organisations. The SPS Agreement establishes the rights of members to take the sanitary and phytosanitary measures necessary to protect the life or health of humans, animals or plants, which may be different from the standards set out in the Codex Alimentarius. However, such a presumption is established: measures based on international standards meet the requirements of the WTO provisions, which may serve as a basis for protection in the event of a dispute.³ This de facto speaks of the special status of the Codex Alimentarius Commission standards.

The Regional Plant Protection and Quarantine Organisation (RPPQO) is an intergovernmental organisation that acts as the Coordinating Body of national quarantine and plant protection organisations at the regional level. There are now ten RPPQOs, but

the development of regional standards is carried out by the following organisations: the European and Mediterranean Organisation for Quarantine and Plant Protection, whose standards cover phytosanitary regulations and plant protection products against pests; The North American Quarantine and Plant Protection Organisation, standards designed to protect agricultural, forestry and other plant resources; The South Cone Regional Phytosanitary Committee (COSAVE), which regulates plant protection issues of particular interest to Member States.

Some issues of standardisation in the field of plant quarantine are also addressed by the International Organisation for Standardisation (ISO), created in 1946 by 25 national standardisation organisations. Its purpose is to promote the development of standardisation worldwide to facilitate international trade and mutual assistance, as well as to enhance cooperation in the fields of intellectual, scientific, technical and economic activities. Ukraine has been a full member of ISO since 1993. Member of the Committees: CASCO, STACO, INFCO. A national committee member of the DEVCO, REMCO, COPOLCO. 25 TCs of the State Standard of Ukraine cooperate with 96 TCs and ISO PCs. Ukraine is actively involved in the work of the joint TC ISO/IEC STK1 “Information Technology”, which was established in 1987.

Features of Phytosanitary Examination in Ukraine: Ukraine actively applies international standards, participates in their development and registers official translations of international standards on phytosanitary measures. In addition, in recent years, information systems (technologies) in many countries have become increasingly widespread in agriculture that help producers manage technological processes competently, with the least risk. They are used in all fields of agricultural production, including in the field of plant protection.

Phytosanitary, agroecological and economic diversity forces a large amount of information to be analysed when making decisions. In this case, it is no longer enough to only the monitor biological objects – their diagnosis and assessment of the intensity of development. In the conditions of multifactoriality of the analysed processes and multivariate decisions, not only phytosanitary diagnostics of diseased plants, but also their phytosanitary expertise is required. According to Art. 13 of the Law of Ukraine “On Plant Quarantine”,

phytosanitary examination of regulated objects is carried out in order to find and/or identify regulated pests.⁴

Phytosanitary examination is a system of phytosanitary, agroecological and agrometeorological observations and analysis, which allows to evaluate the current phytosanitary situation and to predict its development, including crop losses. Phytosanitary examination is provided by the central executive body, which implements the state policy in the field of plant quarantine, in accordance with international standards, instructions and recommendations. According to L. Baidakova, phytosanitary examination is an integral part of the state system of phytosanitary control in Ukraine. It is a set of measures aimed at protecting the territory and health of the population of Ukraine from the penetration from abroad of quarantine facilities, which can cause significant damage to the national economy of Ukraine.⁵

The important principle of external plant quarantine is the prevention of the importation of quarantine pests to Ukraine. Many years of practice show that during phytosanitary control at border crossing points harmful organisms that are not present in the territory of our country are often found. Thus, during the period from 17.08.2019 to 12.09.2019, in the process of monitoring and inventory of old quarantine organisms, state phytosanitary inspectors found limited quarantine organisms in Ukraine, in particular:

- American white moth: in the Kirovograd region (in one area) on an area of 7 hectares; in the Odessa region (in six districts) on an area of 76.45 ha; in the Ternopil region (in one district) on an area of 0.2 ha; in the Kharkiv region (in four districts) on an area of 1.99 ha.
- Western corn rootworm: in the Volyn region (in six districts) on an area of 283.94 ha; in the Transcarpathian region (Beregovo and Chop) on an area of 15 hectares; in the Ivano-Frankivsk region (in one district) on an area of 215.25 ha; in the Odessa region (in four districts) on an area of 329 hectares.
- Potato scab: in the Ivano-Frankivsk region (in two districts) on an area of 21.945 ha; in the Lviv region (in one district) on an area of 16.64 ha.
- *Cuscuta campestris*: in the Kirovograd region (in three districts) on an area of 0.211 ha; in the Odessa region (in one district) on the area of 3.54 ha; in the Kharkiv region (in nine districts) on an area of 5.541

hectares; in the Kherson region (in one district) on an area of 46 hectares.

- Russian knapweed: in the Kherson region (in one area) on an area of 2.5 ha.
- Cenchrus: in the Kherson region (in one area) on an area of 2 ha.⁶

The results of the examination of each sample, carried out depending on the complexity of the analysis by laboratory specialists or inspectors, determine the phytosanitary status of the entire consignment and recommend certain phytosanitary measures.⁷ Phytosanitary examination is carried out directly by phytosanitary laboratories, which are located in every region of Ukraine. Functional flowchart of phytosanitary examination covers four main stages: I – diagnostics of dangerous harmful objects; II – phytosanitary monitoring; III – examination of phytosanitary risks; IV – decisions making about plant protection.⁸

National plant protection organisations, carrying out phytosanitary risk analysis (hereinafter referred to as PRAs), should rely on biological and other scientific and economic data in accordance with relevant ISPMs.⁹ When performing PRAs, it is also necessary to consider the threats to biological diversity that result from the impact on plants. It is the latest advances in science, technic and technological advances in electronics and information technology that allow to quickly receive and analyse any amount of necessary information. Express method of diagnostics of harmful microorganisms, field microcomputers, automatic weather stations, satellite navigation systems, electronic data warehouses, operational satellite weather maps, geo-information phyto-landscape maps, etc. are now widely available.

Today, many countries have developed and are using a variety of decision support systems to manage the protection of agricultural crops, including cereals, from harmful organisms. A DESSAC system has been set up in England to support decision-making to protect crops from disease. The system is installed on the user's computer. At program start-up, system users automatically receive meteorological information from nearby meteorological stations, enter agroecological data, the degree of disease development and spread, and the cost of the fungicide.¹⁰ In the Netherlands, Dacom company has developed PLANT-Plus. The model used by the system takes into account information on plant status, disease development, preliminary and prognostic

weather conditions. It advises when and how to treat fungicides.¹¹ In the United States, MoreCrop system operates to manage protection of wheat and barley against disease in the Northwest Pacific. It is designed for thirty plant diseases that are spread throughout the United States and in individual regions. In total, 11 factors are analysed.¹² In Denmark, the Landbrugsinfo system has been developed and maintained to help farmers make operational decisions to grow field crops, considering agro-meteorological and phytosanitary situations.¹³

For Ukraine, the use of decision support systems for the protection of, for example, cereals based on phytosanitary expertise is particularly significant. Phytosanitary security of any state means the protection of its territory from the risks that arise in the event of the penetration, spread and mass reproduction of pests, diseases of plants and weeds. The latter poses a real danger and can cause significant economic losses in a very short time. It is known that, as a result of pest activity, national agricultural producers lose more than 30% of their gross harvest annually.¹⁴

Conclusions

Developing national and applying international standards, as a key factor in creating a quality system in the field of plant quarantine, not only ensure full fulfilment by Ukraine of its obligations under the IPPC and SPS, agreeing on the phytosanitary safety of exported quarantine cargoes, but also increase the competitiveness of the domestic vegetal products in the world market. This creates a positive image of Ukraine as a reliable trading partner that does not violate the requirements of other countries and guarantees the conformity of product quality, phytosanitary procedures to internationally recognised standards. Therefore, for qualified phytosanitary examinations, the mechanism of guaranteeing compliance with national and international standards, amending legislation, introducing effective penalties for violation of the rules and procedure for conducting phytosanitary examinations should be a promising area.

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