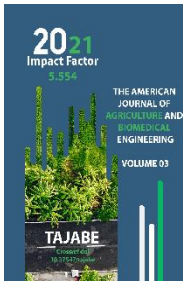
The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: December 30, 2021| **Pages:** 5-8
Doi: https://doi.org/10.37547/tajabe/Volume03Issue12-02

IMPACT FACTOR
2021: 5. 554

OCLC - 1121105746



Journal Website: https://theamericanjournals.com/index.php/tajabe

Guidelines On Pest Risk Analysis: Decision-Support Scheme For Quarantine Pests

Kamoladdin Khudarganov
Doctor Of Agricultural Sciences, Head Of The Laboratory, Research Institute For Quarantine And Plant Protection Agency For Quarantine And Plant Protection Of The Republic Of Uzbekistan

Nizom Azimov
Senior Researcher, Research Institute For Quarantine And Plant Protection Agency For Quarantine And Plant Protection Of The Republic Of Uzbekistan

Jurabek Yakhoev
Junior Researcher, Research Institute For Quarantine And Plant Protection Agency For Quarantine And Plant Protection Of The Republic Of Uzbekistan

ABSTRACT

This standard is based on ISPM No. 11, «Pest risk analysis for quarantine pests, including an analysis of environmental risks and risks posed by living modified organisms». It provides detailed instructions for the following stages of pest risk analysis (PRA) for quarantine pests: preparatory stage, pest categorization, assessment of the likelihood of introduction, assessment of potential economic consequences and assessment of pest risk management. It contains a framework, based on successive questions, to decide whether an organism has the characteristics of a quarantine pest and to determine, if necessary, possible management options.

Keywords

Pest Risk Analysis, PRA, Quarantine Pests, ISPM

INTRODUCTION

The EPPO Quarantine Pest Decision Scheme is intended to be used in assessing the potential significance of a particular pest in relation to a clearly defined area (PRA area). A PRA area can be the entire EPPO territory, its part or a group of countries or their part. This scheme focuses on the assessment of specific pests; if it is necessary to carry out a risk assessment for a separate path of spread, then this scheme can be used after determining which pests are

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: December 30, 2021| **Pages:** 5-8
Doi: https://doi.org/10.37547/tajabe/Volume03Issue12-02

IMPACT FACTOR
2021: 5. 554

OCLC - 1121105746

associated with this path of spread [1, 536 p .; 2, 23-36 p .; 3, 13-18 pp.].

The flow chart provides detailed instructions for the next steps in pest risk analysis: preparatory phase, pest categorization, assessment of the likelihood of introduction, assessment of potential economic impact and assessment of pest risk management. The pest risk assessment scheme is divided into two main parts. The scoring scheme in section A is presented according to the principle of a qualifying table, made up of consecutive questions with two alternative answers. If this scheme leads to the conclusion that an organism has the required characteristics of a quarantine pest, then that pest is then assessed in more detail in Section B. From this assessment, a conclusion can be made regarding the level of "pest risk" that this pest poses. harmful organism. This conclusion can then be used during the pest risk management assessment stage to determine if the risk is acceptable and to determine how to manage it. Prior to starting the pest risk management assessment stage, or at specific stages throughout the process, it may be advisable to consult with other interested authorities. For example, it may be necessary to have discussions with exporters about what measures are actually possible in practice, with importers to find out what measures might be cost-effective, with government representatives on the implications for international trade, and with plant protection experts to make a decision. about what control measures are available, how effective they are and to what extent it is possible to eliminate outbreaks [6, 7].

Information requirements. Prior to initiating a PRA, information should be collected on the various characteristics of the pest, which will be assessed during the procedure itself. EPPO Standard RM 5/1 (1) "List of information required for pest risk analysis" contains a list showing which information will be important. For the analysis of the risk associated with the route of spread, a list of pests that can move with this spread (for example, carried with a load) can be compiled on the basis of information from official sources, databases, scientific and other literature, or from through consultation with experts. It is advisable to prioritize the list based on expert judgment on the distribution and types of pests. A preliminary assessment can be made using any already available information for the immediate delivery of one or another clear decision. In particular, if the high risk associated with one or more pathways is immediately apparent, additional searches for information to answer other questions or consider other pathways or host plants. The decision is based on the opinion of the experts, and the preliminary assessment will thus provide the information that will be required to conduct a full assessment. On the other hand, it may quickly become apparent from section A of the risk assessment that the pest in question does not have the required characteristics to be a quarantine pest and that it is not practical to conduct a full assessment. When passing through the scheme, an expert may find that there are questions that cannot be answered. This happens when the question "does not fit" in a given case (N / A), then the question is skipped, and the lack of an answer does not reduce the quality of the pest risk assessment being carried out. On the other hand, it may not be possible to obtain information, and in such

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: December 30, 2021| **Pages:** 5-8
Doi: https://doi.org/10.37547/tajabe/Volume03Issue12-02
IMPACT FACTOR
2021: 5. 554
OCLC - 1121105746

cases its absence will to some extent reduce the quality of the assessment, depending on the importance of the question. A reliable PRA cannot be carried out without adequate information, and at the end of this scheme, the examiner needs to answer the question whether the quantity and quality of information is satisfactory for the purposes of the assessment. Where relevant information is not available on the pest in question, information on related organisms may be useful. If such indirect information is used in the assessment, this should be reflected in the assessment process and taken into account when making the final decision [4, 5, 8].

Documentation. For possible future reassessments of the PRA, it is important that all steps in the procedure are fully documented, indicating who carried out the assessment, how each decision was made and what information it is based on. It is also important to record the dates of receipt of the information, as later information on the pest may influence the final decision. Any uncertainty about the date or conclusions should be noted. Models have been developed for the preparation of PRA. A computerized version of this circuit is in preparation. The pest risk analysis report should be prepared in accordance with the PRA report form posted on the EPPO website [8].

Special situation for harmful plants. The organism in respect of which PRA is carried out may be a harmful plant. Harmful plants can primarily damage crops and plantings (for example, ornamental plants), in which case they are commonly referred to as “weeds”. Weeds do not have "host plants", but the damage they cause can be economically assessed in the same terms as for harmful animals or microorganisms. In addition to affecting cultivated plants, weeds can also affect the environment. Some few harmful plants can predominantly harm natural and semi-natural (partly modified by humans) vegetation. They are often referred to as "invasive". They affect the environment (including indirect effects on humans and animals). While they can be measured in economic terms, they are usually described in qualitative terms. Other harmful plants parasitize directly on host plants; these plants can be assessed in the PRA process in the same way as plant pathogens. Like harmful animals and microorganisms, harmful plants can be introduced accidentally, in particular in the form of seeds or other reproductive parts, contaminating various imported goods. However, a distinctive feature of plants is that they are often imported deliberately, for agricultural or horticultural purposes. In such cases, the analysis of their penetration path is no longer of interest to PRA. Instead, the analysis focuses on the pathways from “intended habitat” (where a given plant does not necessarily acclimate, but may simply be supported by human activity) to various possible “unintended habitats” where it can acclimate. organisms prior to the initiation of PRA. This is also true for many weeds and invasive plants. However, most plants are not pests and the PRA should establish this quickly and easily. It should be noted that there are cases when plants are not harmful at home, but become weedy or invasive when introduced into new zones. Ornamental plants that have recently been developed or obtained from breeding can also be potentially harmful. For definitions of terms used in this decision tree, see the FAO Glossary of Phytosanitary

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: December 30, 2021| **Pages:** 5-8
Doi: https://doi.org/10.37547/tajabe/Volume03Issue12-02

IMPACT FACTOR
2021: 5. 554

OCLC - 1121105746

Terms (2010). ISPM No. 5. IPPC Secretariat, FAO, Rome (Italy) [4, 5].

REFERENCES

1. Васютин А.С., Каюмов М.К., Мальцев В.Ф. Карантин растений. М. 2002. – С. 536.
2. Murodov B.E., Yakhyoyev J.N. Quarantine Pests Of Internal Quarantine Of The Republic Of Uzbekistan // Education and science in Russia and abroad. 2017 | Pages: 32-36.
3. Murodov B.E., Sulaymonov O.A., Yakhyoyev J.N. Harm of quarantine pests of the internal quarantine of the republic of Uzbekistan // Proceedings of 2nd International Multidisciplinary Scientific Conference on Innovative Technology. Organized by Novateur Publications, India. July 25th, – 2020. – P. 13-18.
4. https://www.ippc.int/file_uploaded/1273490046_ISPM_05_2010_E.pdf [на 01 июня 2011 года].
5. Муродов Б.Э., Сулаймонов О.А., Яхёев Ж.Н. Калифорнийская щитовка на яблоне // Образование и наука в России и за зарубежом. – 2018. – № 12 (47). – С. 118-122.
6. Murodov B.E., Ortikov U.D., Yakhyoyev J.N. Bioecology of california shield (Quadraspidiotus perniciosus Comst) in Uzbekistan / Proceedings of International Multidisciplinary Scientific Conference on Innovative Technology. Organized by Novateur Publications, India. May 25th, – 2020. – P. 104-107.
7. Муродов Б.Э., Ортиков У.Д., Яхёев Ж.Н. Биоэкология и развития калифорнийской щитовки (Quadraspidiotus perniciosus Comst.) в Узбекистане // Евразийский Союз Ученых (ЕСУ). – 2020. – 5 (74). – С. 39-40.
8. Машарипов У.А. Городской усач (Aeolesthes sarta Solsky) – вредитель лесных насаждений // Актуальные проблемы современной науки. 2020. 1 (110). – С. 108-110.
9. https://gd.eppo.int/standards/PM5/
10. https://gd.eppo.int/standards/PM3/
11. https://gd.eppo.int/standards/PM10/
12. https://www.ippc.int/ru/standards