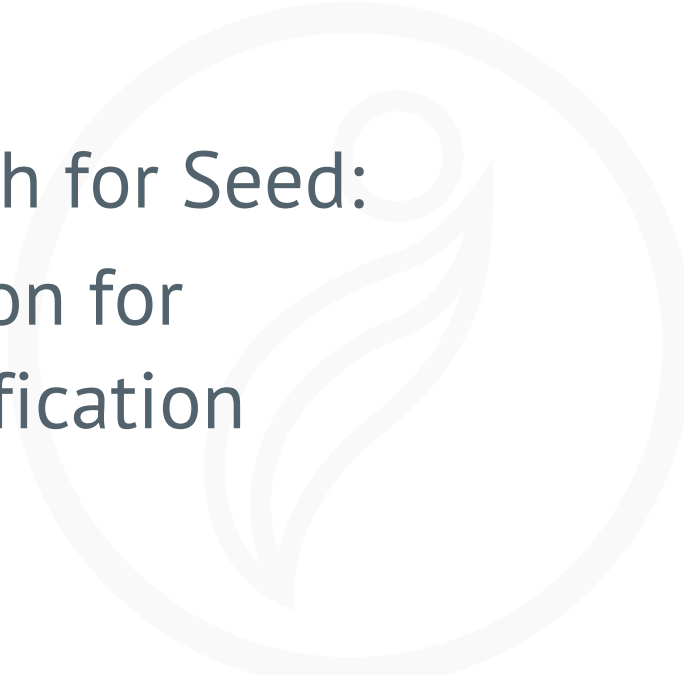


A Systems Approach for Seed: an alternative option for phytosanitary certification



OBJECTIVE OF THIS DOCUMENT

To achieve alignment among the public and the private seed sectors for an equivalent, alternative measure that simplifies and harmonizes phytosanitary certification for the international movement of seed. This alternative measure will be multilaterally recognized, broadly adopted, and will recognize current industry processes which reduce phytosanitary risk associated with seed.

CURRENT SITUATION

The existing system of phytosanitary certification for the international movement of seeds is complex and lacks harmonization.

International Plant Protection Convention (IPPC) and National Plant Protection Organizations (NPPOs) have ongoing efforts to develop a systems approach to simplify the movement of seed. ISF commends them on their efforts to date and fully agrees with the opinion of IPPC experts that collaboration between NPPOs and the seed sector is essential for a successful development and implementation of a systems approach for seed.

Imports and (re)exports of seeds are critical to the seed industry for developing new plant varieties and for supplying commercial seed globally. Developing new varieties and supplying high-quality seed are vital for global food production.

Seeds are produced in various countries around the world, often in countries different than where the seed is processed. In the seed industry, seed processing, treatment and testing is often done in a centralized location and seed lots are supplied to many different countries over a period of several years. Re-export of seed is a common and frequent practice.

Global seed trade continues to grow rapidly. At the same time many countries are defining new, not harmonised and progressively more specific phytosanitary requirements for seeds, resulting in a high degree of complexity to move seed around the globe. Further, it increasingly strains limited NPPO resources.

NPPOs often consider seed an important pathway for the introduction and spread of pests. However, seed has been confirmed to be a pathway only for a limited number of pests. Today, many countries have requirements for pests for which there is no scientific evidence that seed is a pathway under seed production practices

SYSTEMS APPROACH FOR SEED

ISF sees and supports a systems approach for seed as a necessary alternative measure in which seeds produced in a NPPO-approved supply chain can be imported and (re-)exported with a phytosanitary certificate (PC), without the specification of measures for individual pests. 'Supply chain' is defined as, 'from the seed that is sown in the country of origin through all subsequent processes and procedures until it is imported into the country of final destination'.

It is the goal of ISF to work within the framework of the IPPC to develop a systems approach for seed, in accordance with the international standard number 14 (ISPM 14) *The use of integrated measures in a systems approach for pest risk management*. A systems approach for seed may include elements such as risk evaluation, pest monitoring and information sharing, pest risk management and quality management with checks and inspections at the appropriate stages. A systems approach should work for different seed crops and production systems and be accessible to both small and large seed companies.

ISF strives for recognition of industry practices that are currently used to ensure the production of healthy

seeds. Seed companies already have many procedures in place to prevent infection/infestation of seeds with pests and the implementation of a systems approach for seed will leverage these industry practices.

The existing systems approaches based on ISPM14 are implemented via bilateral agreements between NPPOs. For the international seed industry, a harmonized framework for a multilaterally recognized systems approach would be most suitable. With multilateral recognition, pest risk management options applied in the country of origin and/or country of re-export are recognized by NPPOs of multiple importing countries. ISF strives for global harmonization via multilateral recognition of a sufficiently clear systems approach-Annex to ISPM38. This system can be built up gradually and evolve from only a few participating countries in the beginning to global acceptance over time.

Fig. Schematic representation of systems approach for seed. Approved companies produce 'systems approach seed' that can be moved efficiently among countries that have implemented the systems approach.



Pests in scope

The number of regulated pests is currently large and still increasing. At this moment, there is no international agreement about which pests are a risk for introduction and transmission by seed. ISF is of the opinion that only scientifically proven risks should be addressed in a multilaterally recognized systems approach and strives for acceptance of one internationally recognized seed pest list. ISF proposes to use existing lists, such as the ISF Regulated Pest List (<https://pestlist.worldseed.org/public/pestlist.jsp>), as a basis for a global pest list.

Recognition of industry practices

ISF proposes that, in the multilateral systems approach for seed, measures are not to be based on individual pests but instead on monitoring of the possible pathways of introduction. There are relatively few pathways of introduction and effective risk mitigation of these pathways can be expected to provide protection against many pests with similar biology and epidemiology.

Seed companies monitor for pests that may be transmitted via seed. Practices during seed production and processing implemented by individual companies may vary depending on the crop (group), pest risk, cultural practices, protected or open field production, climate, local conditions, and company choices. Even with the variation in practices, the commonly used options to manage pests in the different phases of seed production are already described in ISPM 38. Not all options are necessary in each seed production system. Certain subsets can be, and are, used to manage crop pests under different circumstances

Any seed company (including service providers) wanting to move seeds using a systems approach, would be required to have in place a Quality Management System (QMS). A QMS is used by seed companies to establish consistent processes, ensuring healthy seeds for their customers. The QMS drives continuous improvement and enables regulatory oversight by the respective NPPOs. The QMS elements of primary interest to the

NPPOs include traceability, mechanisms for pest reporting, model for accreditation/auditing, and actions in case a pest enters the seed production (root cause analysis and follow-up actions). QMS-processes that include monitoring and subsequent actions have the capability to enable early detection and mitigate emerging issues.

Multilateral acceptance

Close collaboration between NPPOs and the international seed sector is essential for a successful design and implementation of a multilateral systems approach for seed that is beneficial for the NPPOs and the seed industry. Agreement by NPPOs on the same systems approach framework ensures confidence in the procedures for approvals and audits conducted by other NPPOs. The benefits to the seed industry and the authorities will be less complexity and more predictable international seed movement.

Multilateral recognition of a systems approach by all countries in the supply chain, including where the seed is produced, processed, or commercialized, would greatly facilitate the re-export process. Ideally, the scope of the certification includes the whole chain of processes taking place in multiple countries, including processes that may take place in the country of re-export such as cleaning, disinfection, testing, treatment and packaging.

A harmonized framework (e.g., ISPM38 Annex) containing some of the following information could be the basis for confidence in a systems approach for seed:

- Clear guidance for NPPOs on how to evaluate pest management practices applied by the seed companies.
- Guidance on which elements should be present in the QMS. The current pest management options described in ISPM38 could be used as an example.
- Guidance on the process of audits and certification. Audits should only be conducted by the NPPOs (or NPPO-approved entities) of the countries where the activities are taking place so as not to duplicate efforts and increase timelines.
- Roles and responsibilities of NPPOs and participating seed companies.

Recognition of the clearly described framework in the Annex for the ISPM 38 should be sufficient for countries to adopt a systems approach for seed as an alternative option to today's system of phytosanitary certification without the need for further negotiations.

Implementation

Re-export of seed consignments to countries not yet participating in the systems approach for seed may pose some challenges, at least initially. Acceptance of a specific measure might be requested during transition. There might be a period during which companies that want to become approved under a systems approach for seed may have to duplicate work to fulfill the requirements of both the current and the new system. However, if the transitional period spans several years, the extra costs and efforts to maintain two systems may be a hurdle and could limit the number of companies willing to adopt a systems approach for seed.

Final remarks

ISF believes that a systems approach for seeds should be simple, and easy to accept and implement by NPPOs and the seed industry while fulfilling the phytosanitary needs of both. A system that considers equivalent measures will facilitate acceptance and implementation.

A systems approach for seed would mean a paradigm shift for both public and private sector. For NPPOs it will mean a shift of resources from inspection of consignments more to overseeing the system. For the seed industry, it will mean assuring the NPPO's that its seed production and processing processes are conducted

in a way that consistently results in high seed quality and negligible risk of seed-transmitted pests.

ISF and NPPOs share common goals to mitigate the potential phytosanitary risks that could be associated with seed movement while at the same time providing innovations for farmers. ISF remains committed to the vision of a world where the best quality seed is accessible to all, supporting food security and sustainable agriculture.