



## National Seed Health System

**TITLE:** Seed Crop Phytosanitary Visual Inspection Procedures

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### Seed Crop Phytosanitary Visual Inspection Procedures

#### 1 Purpose:

- 1.1 To provide guidance to National Seed Health System (NSHS) accredited entities in the development of procedures for phytosanitary seed crop visual inspection to support the issuance of federal phytosanitary certificates for the international movement of seed.

#### 2 Scope:

- 2.1 This document establishes guidelines for NSHS accredited entities for visual inspection of seed consignments. Visual inspection under National Seed Health System accreditation is performed to support the issuance of federal phytosanitary certificates for the international movement of seed prior to export.
- 2.2 Visual inspections are conducted for the detection of pests.
- 2.3 Visual inspection procedures must be consistent with the USDA, APHIS, PPQ Export Certification Manual (XPM).

#### 3 References:

- 3.1 USDA, APHIS, PPQ Export Certification Manual:  
[https://www.aphis.usda.gov/import\\_export/plants/manuals/domestic/downloads/xpm.pdf](https://www.aphis.usda.gov/import_export/plants/manuals/domestic/downloads/xpm.pdf)
- 3.2 NSHS Reference Manual A:  
3.3 [http://seedhealth.org/wp-content/uploads/2017/04/Reference-Manual-A-010416\\_0.pdf](http://seedhealth.org/wp-content/uploads/2017/04/Reference-Manual-A-010416_0.pdf)
- 3.4 Code of Federal Regulations 7 CFR 353.6 – Inspection
- 3.5 Code of Federal Regulations 7 CFR 353.8 - Standards for accreditation of non-government facilities
- 3.6 Code of Federal Regulations 7 CFR 353.9 - Standards for accreditation of non-government facilities to perform laboratory seed health testing and seed crop phytosanitary inspection.
- 3.7 ISPM 5, Glossary of Phytosanitary Terms. Int. Plant Protection Convention, 2007.
- 3.8 FAO Glossary of phytosanitary terms, FAO Plant Protection Bulletin, 38(1) 1990: 5-23.

#### 4 Definitions:

- 4.1 **Consignment** – A quantity of plants, plant products or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities or lots)(ISPM 5).
- 4.2 **Phytosanitary Certificate (PC)** – An official paper document or its official electronic equivalent, consistent with the model certificates of the International Plant Protection Convention (IPPC), attesting that a consignment meets phytosanitary import requirements (FAO, 1990).

- 4.3 **Plant pests** - Plant pests. Any living stage of any insects, mites, nematodes, slugs, snails, protozoa, or other invertebrate animals, bacteria, fungi, other parasitic plants or reproductive parts thereof, viruses, or any organisms similar to or allied with any of the foregoing, or any infectious substances, which can directly or indirectly injure or cause disease or damage in any plants or parts thereof, or other products of plants. A (7 CFR 353.10).

## 5 **Seed crop phytosanitary visual inspection objectives**

- 5.1 Visual inspection is conducted for the detection of plant pests to support the issuance of federal phytosanitary certificates prior to export.

## 6 **Assumptions involved in the application of visual inspections**

- 6.1 Inspection of entire consignment is not usually feasible; phytosanitary inspection is based on sampling.
- 6.2 Pests of concern, or the signs or symptoms they cause, should be visually detectable.
- 6.3 Some probability of pests being undetected is recognized.

## 7 **Requirements for personnel performing visual inspections**

- 7.1 Personnel must have technical qualifications and competencies in pest detection, including knowledge of, access to or capability in identification of pests, plants and plant products, which can be demonstrated through training materials and records, as described in NSHS Reference Manual A.
- 7.2 Personnel must have access to appropriate inspection facilities, tools and equipment.
- 7.3 Personnel must have written guidelines (such as regulations, manuals, and pest data sheets).
- 7.4 Visual inspection may be conducted using the unaided eye, lens, or stereoscope.

## 8 **Visual inspection components**

- 8.1 Sampling
- 8.1.1 The sample should be representative of the consignment
- 8.1.2 Sampling must follow guidelines described in the USDA, APHIS, PPQ Export Certification Manual (XPM).
- 8.2 Inspection
- 8.2.1 Visual inspection should be designed to detect live pests, pathogens, disease symptoms, soil, plant debris, and weed seeds.
- 8.2.2 Examination of the sample must be undertaken as soon as reasonably possible after the sample has been drawn.
- 8.2.3 Procedures should be in place to ensure the integrity and traceability of samples for each consignment or lot, documented on the Seed Crop Phytosanitary Visual Inspection of Shipment Report
- 8.2.4 The entire sample should be examined unless a pest is found
- 8.2.5 If a pest is detected, refer to 8.3 Pest Detection.
- 8.2.6 If no pests are detected, refer to 8.4 Documentation.
- 8.3 Pest Detection
- 8.3.1 Visual inspection is discontinued if a pest of concern is detected or suspected.
- 8.3.2 Verification of pest identity

- 8.3.2.1 If necessary, the pest or seed may be removed from the seed sample and submitted for laboratory diagnosis.
  - 8.3.2.2 The pest or suspect seed should be processed systematically in a laboratory facility with demonstrated proficiency in diagnosing plant diseases and pests. Laboratory diagnosis may be performed using internal diagnostic capabilities or a qualified 3<sup>rd</sup> - party laboratory, such as a National Plant Diagnostic Network Laboratory.
  - 8.3.2.3 Accredited entities using a 3<sup>rd</sup>-party laboratory for pest identification must have an agreement in writing acknowledging that the laboratory agrees to diagnose samples for the NSHS-accredited entity.
  - 8.3.2.4 Accredited entities using internal diagnostic laboratories must have appropriate facilities, expertise, and training procedures.
  - 8.3.3 If pests or infected seeds are found, but can be readily and completely removed from the entire consignment, the consignment may be reconditioned in such a way to make it eligible for re-inspection.
  - 8.3.4 If detected pests or infected seed cannot be completely removed, the visual inspection of the consignment cannot be used to support phytosanitary certification.
- 8.4 Documentation
- 8.4.1 Results of the visual inspection must be documented.
  - 8.4.2 Upon completion of a visual inspection, the Seed Crop Phytosanitary Visual Inspection of Shipment Report must be completed and signed by the person who conducted the visual inspection, and made available to the Authorized Certification Official.

## 9 Records

- 9.1 Seed Crop Phytosanitary Visual Inspection of Shipment Report
  - 9.1.1 Should include, at a minimum, consignment number, identity of the inspector, date and location of inspection, seed species, quantity examined, and outcome of the inspection (including any pests detected).

## 10 Flowchart and Exhibits

- 10.1 Flowchart

