

# 3

Export Certification  
Manual

## Special Procedures

### *U.S. Export Standards for Seed Potatoes*

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#### Introduction

These special procedures cover the export standards for seed potatoes and how official State seed potato certification agencies can certify seed potatoes for export.

U.S. export seed potatoes are seed potatoes that have been certified by an official State seed potato certification agency as meeting the requirements described in these special procedures. Affixed to each container of seed potatoes will be an official tag or indicia that has been approved by the Potato Association of America.

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#### Export Standards for Seed Potatoes

The export standards for seed potatoes are mandatory, but should **not** take the place of official State standards that apply to domestic seed potatoes.

When a grower requests export certification of seed potatoes, then the official State seed potato certification agency should consult USDA-APHIS-PPQ's *Export Certification Manual*.

### **Certification Basis**

Export certification of seed potatoes is based solely on visually inspecting a sample from each lot, which **must** meet the prescribed tolerances in these special procedures unless otherwise provided by a higher authority.

Visually inspect seed potatoes at least twice during each planting to ensure compliance with prescribed tolerances.

### **Limited Generation System**

Export certification of seed potatoes is in conformance with the limited generation system specified by these special procedures.

### **Planting Site**

Growers apply to the official State seed potato certification agency for their approval of each field designated as a planting site. Fields **must** be at least 50 meters from any other potato planting in order to be eligible for producing U.S. export seed potatoes. This also helps to prevent exposure to infection by disease-causing pathogens.

### **Planting Maintenance**

Plantings **must** be kept in a good growing condition, and general insect and seed pests **must** be kept under effective control.

Suitable precautions **must** be taken to guard against the spread of disease and insect pests into or within plantings when cultivating, irrigating, digging, grading, moving, using equipment and when performing other farming practices.

### **Storage Facilities**

Each lot of U.S. export seed potatoes **must** be stored so as to preclude intermixing with any other class of certified seed potatoes.

U.S. export seed potatoes shall **not** be stored in the same storage facility with potatoes found to be infected with bacterial ring rot, *Clavibacter michiganensis* subsp. *sepedonicus*.

### **Containers**

Containers used for harvesting, storing, and handling U.S. export seed potatoes **must** be new or cleaned and disinfected to the satisfaction of the official State seed potato certification agency.

Containers used for packaging and shipping U.S. export seed potatoes **must** be new.

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## State Authority

State authority for certifying seed potatoes resides with the State agency granted the authority by State law to carry out these regulatory functions.

Contact the Department of Agriculture of the State from which the seed potatoes originate for the name and address of the official State agency that possesses certification authority.

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## Responsibilities

USDA-APHIS-PPQ will periodically review the U.S. export standards to ensure that they keep current with biological information and requirements of international trade. In cooperation with State and industry representatives, USDA-APHIS-PPQ will effect necessary changes in order to maintain viability and integrity of the U.S. export standards.

### Official State Seed Potato Certification Agency

The official State seed potato certification agency is responsible for verifying that the requirements of these special procedures have been met within the limitations imposed by accepted State and industry standards.

### Participating Growers

A participating grower **must** be a qualified seed potato grower raising certified seed potatoes in accordance with official State certification regulations. Farming, sanitation, and other seed production practices **not** addressed in these special procedures are the responsibility of the participating grower. If a participating grower fails to comply with the requirements of the U.S. export standards, then that grower's seed potatoes will be ineligible for export as U.S. export seed potatoes.

The participating grower **must** select the planting site for and properly maintain plantings of seed potatoes that are being grown subject to the provisions of the U.S. export standards.

Participating growers **must** maintain the identity and grade of each lot of certified seed potatoes in their possession in a manner approved by the official State seed potato certification agency.

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## Requirements for Classes of Certified Seed Potatoes

When a class of seed potatoes is specified as being eligible for certification, then the stock was previously certified as the specified class by an official seed potato certification agency. That certification **must** be the same as specified in the U.S. export standards. All seed potatoes that are certified as such **must** be visually monitored in the field for trueness to plant type, and the tubers **must** be visually inspected after harvesting to verify plant type.

### Pre Nuclear Stock Seed Potatoes

To be eligible for certification as pre nuclear (in-vitro production) stock seed potatoes, each explant **must** have been disease-tested. Plantlets and microtubers **must** be produced in aseptic culture. During normal business hours, records **must** be available for inspection by representatives of the official State seed potato certification agency.

### Nuclear Stock Seed Potatoes

To be eligible for certification as nuclear (greenhouse or controlled environment production) stock seed potatoes, plant material **must** have met the pre nuclear requirements.

At least 5 percent of this increase **must** be disease-tested, **except** when there are fewer than 20 plants or minitubers. When there are fewer than 20 plants or minitubers, at least 5 plants or minitubers **must** be disease-tested.

Plants or minitubers selected for disease testing may be bulked following acceptable methods for test purposes. In the event that a test is positive for disease infection, the whole clone, together with any progeny, will be ineligible for certification. Testing and regeneration records **must** be maintained and made available for inspection at all reasonable times.

### Generation 1—U.S. Export Seed Potatoes

Generation 1 plant material that has met the requirements for pre nuclear or nuclear stock will be eligible for certification as Generation 1—U.S. export seed potatoes.

Each cultivar and field should be individually tested for PVX in the laboratory by randomly collecting from separate plants a minimum of 250 leaflets or one percent of the hills. The tolerance for PVX is zero (0) percent.

Plants **must** be inspected at least twice while growing and found to be free of all other potato diseases that may be discovered visually.

### Generation 2—U.S. Export Seed Potatoes

Generation 2 plant material that has met the requirements for Generation 1 or earlier increases will be eligible for certification as Generation 2—U.S. export seed potatoes.

Plants **must** be sampled and PVX tested during the growing season. Randomly collect from separate plants, 250 leaflets from each 10 acres or portion thereof. **Not** more than one plant of the 250 leaflets tested shall be PVX infected (0.40 percent). Plants **must** be inspected at least twice while growing and found to be in compliance with the tolerances specified in [Figure 3-10-1](#).

Factor	First Field Inspection	Second Field Inspection
Potato Spindle Tuber	0	0
Bacterial Ring Rot	0	0
Blackleg	0.10	0
Wilts	0.10	0
Total, All Viruses	0.25	0.10
Varietal Mixture	0.10	0

**FIGURE 3-10-1: Tolerances for Generation 2—U.S. Export Seed Potatoes**

### Generation 3—U.S. Export Seed Potatoes

Generation 3 plant material that has met the requirements for Generation 2 or earlier generations will be eligible for certification as Generation 3—U.S. export seed potatoes.

Each planting **must** be inspected visually at least twice and found to be in compliance with the tolerances specified in [Figure 3-10-2](#).

Factor	First Field Inspection	Second Field Inspection
Potato Spindle Tuber	0	0
Bacterial Ring Rot	0	0
Blackleg	0.25	0.10
Wilts	0.20	0.10
Total, All Viruses	0.25	0.10
Varietal Mixture	0.25	0.10

**FIGURE 3-10-2: Tolerances for Generation 3—U.S. Export Seed Potatoes**

### Generation 4—U.S. Export Seed Potatoes

Generation 4 plant material that has met the requirements for Generation 3 or earlier generations will be eligible for certification as Generation 4—U.S. export seed potatoes.

Each planting **must** be inspected visually at least twice and found to be in compliance with the tolerances specified in [Figure 3-10-3](#).

Factor	First Field Inspection	Second Field Inspection
Potato Spindle Tuber	0	0
Bacterial Ring Rot	0	0
Blackleg	0.50	0.25
Wilts	0.50	0.25
Total, All Viruses	0.50	0.25
Varietal Mixture	0.50	0.25

**FIGURE 3-10-3: Tolerances for Generation 4—U.S. Export Seed Potatoes**

### Generation 5—U.S. Export Seed Potatoes

Generation 5 plant material that has met the requirements for Generation 4 or earlier generations will be eligible for certification as Generation 5—U.S. export seed potatoes.

Each planting **must** be inspected visually at least twice and found to be in compliance with the tolerances specified in [Figure 3-10-4](#).

Factor	First Field Inspection	Second Field Inspection
Potato Spindle Tuber	0	0
Bacterial Ring Rot	0	0
Blackleg	1.00	0.50
Wilts	1.00	0.50
Total, All Viruses	1.00	0.50
Varietal Mixture	0.75	0.50

**FIGURE 3-10-4: Tolerances for Generation 5—U.S. Export Seed Potatoes**

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## Refusal, Cancellation, and Rejection

Failure to comply with any provision of the U.S. export standards will constitute cause for refusal of certification services, cancellation of any approvals already granted, or rejection of seed potatoes entered for certification as a class of U.S. export seed potatoes.

In addition, the following incidents are specific causes for refusal, cancellation, or rejection:

1. Any field, storage, or other condition which an official State seed potato certification agency determines may be detrimental to the U.S. potato industry or to the U.S. seed potato export market, or

which may hinder or prevent accurate determination of whether the disease, varietal purity, grade, or other requirements of the U.S. export standards have been met

2. Any seed potatoes entered for certification which are verified to be infested or infected with a serious pest that is exotic or has a limited distribution in the United States. Note that gangrene, *Phoma exigua* pv. *foveata*, and wart, *Synchytrium endobioticum*, **do not** occur in the United States.
3. Any seed potatoes which are determined to be infested with root-knot nematode, *Meloidogyne* spp.; potato rot nematode, *Ditylenchus destructor*; cyst nematode, *Globodera* spp.; or brown rot, *Pseudomonas solanacearum*. United States' quarantine restrictions **do not** permit the growing of seed potatoes in any golden (cyst) nematode-infested area.
4. The basis for and scope of a refusal, cancellation, or rejection and reinstatement following such actions will be determined by the official State potato certification agency in the State where the U.S. export seed potatoes are produced.

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## Grade and Identification

U.S. export seed potatoes **must** be:

- ◆ Graded to meet U.S. No. 1 Seed Potato Grade<sup>1</sup>
- ◆ Identified by a blue-colored tag
- ◆ Identified by official State certification tags or other official indicia affixed to each container that are approved by the Potato Association of America

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1 United States Standards for Grades of Seed Potatoes, effective March 6, 1987, reprinted January 1997 are located at the following web site address: <<http://www.ams.usda.gov/standards/potatosd.pdf>>.

