

4

Export Program
Manual

Special Procedures

Commodity • Seed Potatoes

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Introduction

The following sections of the XPM deal with seed potatoes. The first section covers the State National Harmonization Program (SNHP) Memorandum of Understanding for seed potatoes. The SNHP was put together in a cooperative effort by APHIS, seed certification agencies, State Plant Regulatory Officials (SPROs), the National Plant Board, and industry groups. It was finalized in November 2006. States have been signing Memorandums of Understanding since 2007. Colorado, Minnesota, Oregon, and Washington have met all the requirements of the SNHP program.

One of the requirements of the SNHP Memorandums of Understanding is a Quality Manual (QM) from each participating state. The QM has the details about how the state plans to execute the requirements of the Memorandum of Understanding. A QM Review Committee has been formed and is made up of seed potato certification officials, National Plant Board members, and APHIS representatives. The committee works with each state to finalize its QM. A site visit is conducted to audit the state's program prior to final approval. The SNHP QM sets minimum requirements for interstate and export shipments of seed potatoes.

The second section covers Export Standards for Seed Potatoes. This section was developed several years ago and is not used often at this time. It may be that the SNHP Memorandum of Understanding will ultimately replace the Export Standards for Seed Potatoes; however the seed certification officials provided updates for this section in 2005 and the industry would like to retain this section at least until the SNHP is in full use by all states that export seed potatoes.

State National Harmonization Program MOU Template

for

Seed Potatoes

November 30, 2006

Memorandum of Understanding (MOU)

between the

{Insert Name of State or Other Entity} (Cooperator)

and the

United States Department of Agriculture (USDA)

Animal and Plant Health Inspection Service (APHIS)

Plant Protection and Quarantine (PPQ)

Article 1 - Purpose

This MOU provides for the cooperative participation between the parties to hereby establish, as a part of a State National Harmonization Program (SNHP) for seed potatoes, (1) minimum standards set by state authority for certification of seed potatoes in order to facilitate interstate shipment and export and (2) cooperation in pest management.

The purpose of this MOU is to establish, as part of the SNHP for seed potatoes, harmonized standards to control the spread of disease through state certification programs for seed potatoes. This SNHP for seed potatoes allows for uniform minimum phytosanitary standards that may enhance uniformity and quality in seed potatoes shipped between states; may lead to the enhanced marketing of high quality commercial potatoes grown in the United States; and may enhance international marketing of quality seed potatoes exported from the United States.

Article 2 - Authority

APHIS is authorized by the Plant Protection Act, Pub. L. No. 106-224, § 431, 114 Stat. 438, 451, (2002) to cooperate with other Federal agencies, the governments of foreign countries, international organizations or associations, states or their political subdivisions, farmer's associations, and other persons to detect, eradicate, suppress, control, and prevent or retard the spread of plant pests or noxious weeds.

{Insert State Authority, if so desired}

Article 3 - Definitions

- 1. Seed potatoes:** potato plantlets, plants, stem cuttings, microtubers, minitubers, tubercles or tubers intended for planting.
- 2. Line selected hill units:** tubers that have been taken from an identifiable production field and that have been developed through a series of plant selections, grow-outs and reselections based on plant or tuber characteristics.
- 3. Limited generation system:** a scheme wherein eligible planting stock for each seed class is limited by compliance with established pest tolerances and a specified number of increases in the field.

4. **Regulated pest:** any pest that is controlled under the seed certification system of the cooperator.
5. **Free of regulated pests:** regulated pests are **not** present in numbers that can be detected using appropriate sampling, inspection, and testing procedures.
6. **Post harvest test:** winter grow-out or laboratory testing of harvested potatoes to verify that regulated pests meet applicable tolerances.
7. **Certifying Entity:** the seed certification entity in each state. This is the exclusively recognized seed potato certifying entity for each state, as listed below:

{Insert state seed certification entity and define structure and statutory authority}.

Article 4 - Uniform Requirements for Seed Certification

The cooperating parties agree that seed potatoes may be certified by the cooperator or its designee, under the SNHP if:

1. They are produced from:
 - a. tissue culture potatoes that are free of regulated pests or
 - b. other entry level materials such as line selected hill units or parent plants used in stem cuttings that are free of regulated pests;
2. They are produced under a limited generation system;
3. They have undergone at least two field inspections to ensure compliance with tolerances set forth in Annex 2 of this MOU;
4. They are subjected to post-harvest testing for recertification;
5. They are produced and stored in a cooperating state under the SNHP; and
6. Interstate shipments and exports departing from the state are inspected by the Cooperator's designated officials at the shipping point to verify lot identity and ensure compliance with all applicable phytosanitary requirements.

Article 5 - Cooperator Responsibilities

A. The cooperating state with a commercial seed production industry agrees to:

1. Designate *{Mr./Ms./Dr.—Insert full name}* as its authorized representative who shall be responsible for collaboratively administering the activities conducted under this MOU;
2. Recognize seed certification entities for each state participating in the SNHP;
3. Ensure that certification practices in their state conform fully to the requirements listed in Article 4 of this MOU;
4. Require that the designated seed certifying entity maintains adequate records relating to all aspects of the certification regime, including records to enable trace-back of the certified seed to its field generation and parent material and to ensure lot identification;
5. Require that any testing is performed using generally recognized diagnostic methods and protocols;

6. Provide to APHIS a quality manual describing seed certification procedures, pest tolerances, and testing methodologies, together with mechanisms for ensuring compliance. The quality manual shall consist of the most current certified seed potato standards for each certifying entity and a brief handbook outlining the various standards and protocols for disease testing;
7. Implement potato pest management plans and quarantine programs consistent with those listed in Annex 1 of this MOU; and
8. Require that certified seed produced within the state and offered for interstate and export sale meets the requirements of Article 4 of this MOU.

B. The Cooperator agrees to require that in-state growers who purchase seed from outside the state provide or maintain adequate records verifying that such seed meets the requirements of Article 4 of this MOU.

Article 6 - APHIS Responsibilities

APHIS agrees to:

1. Designate *{Mr./Ms./Dr.—Insert full name}* as its authorized representative who shall be responsible for collaboratively administering the activities conducted under this MOU;
2. Recognize the seed certification entity that is recognized by the Cooperator to certify seed potatoes under the SNHP if the state meets the requirements set forth in Articles 4 and 5 of this MOU;
3. Oversee the implementation of the Federal pest management plans listed in Annex 1 of this MOU;
4. Oversee the SNHP by reviewing records and audits performed by the Cooperator of certification facilities, procedures, and personnel to ensure conformance with the terms of this MOU;
5. Provide additional declaration for international export by attaching such additional declaration to the federal phytosanitary certificate for seed potatoes from Cooperator states stating that those seed potatoes meet the minimum standards established through the SNHP.

Article 7 - Statement of No Financial Obligation

Signature on this MOU does not constitute a financial obligation on the part of APHIS or the Cooperator. Each signatory party is to use and manage its own funds in carrying out the purpose of this MOU. Transfer of funds or items of value is not authorized under this MOU.

Article 8 - Security Guidelines

When connected to the USDA, APHIS network, comply with the security guidelines as outlined in the USDA Cyber Security Manual Series 3500; including USDA Departmental Manual (DM) 3515, "Privacy Requirements" and USDA DM 3525, "USDA Internet Use and E-Mail Security." The Cooperator will **not** download any material (i.e., pictures, movies, or music files) bearing a copyright nor access any material defined as inappropriate in these regulations and directives.

Article 9 - Limitation of Commitment

This MOU and any continuation thereof shall be contingent upon the availability of funds appropriated by the Congress of the United States. It is understood and agreed that any monies allocated for purposes covered by this MOU shall be expended in accordance with its terms and the manner prescribed by the fiscal regulations and/or administrative policies of the party making the funds available. If fiscal resources are to transfer, a separate agreement **must** be developed by the parties.

Article 10 - Congressional Restriction

Under 41 USC 22, **no** member of, or delegate to, Congress shall be admitted to any share or part of this MOU or to any benefit to arise therefrom.

Article 11 - Review and Amendment

The terms of this MOU, in particular the seed certification requirements in Article 4, the pest management plans in Annex 1, and the pest tolerances in Annex 2, shall be subject to periodic review and amendment. This MOU, including annexes, may be amended by mutual agreement of the cooperating parties in writing.

Article 12- Termination

This MOU may be terminated by either party upon 30 days written notice to the other party.

Article 13 - Effective Date And Duration

This MOU will be in effect upon date of final signature and will continue for five years from the date of signature.

If derogation for this cooperator is applicable, insert the following article, or similar language:

Article 14 - Temporary Derogation

Notwithstanding the requirements of Article 4.3 of this MOU, the tolerance for variety mix in *{Insert name of State}* will be *[xxx]*. This derogation will be in effect for a period of *{Insert number of years}* years following the date of signature.

The requirements of Article 4.6 will not apply to *{Insert name of State}* for a period of *{Insert number of years}* years following the date of signature.

{Insert Name of Cooperator}

{Insert name and title of signatory}

Date

UNITED STATES DEPARTMENT of AGRICULTURE
ANIMAL and PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION and QUARANTINE

{Insert name and title of signatory}

Date

Annex 1: Federal Pest Management Plans

1. Golden Nematode Management Plan
2. Potato Necrotic Virus Management Plan

Annex 2: Maximum Tolerances, Final Field Test

Leafroll	Mosaic	Total Virus	BRR	Variety Mix
1%	2%	3%	0	0.5%

Export Standards for Seed Potatoes

The export standards for seed potatoes **do not** take the place of official State standards that apply to domestic seed potatoes.

When a grower requests export certification of seed potatoes, the official State seed potato certification agency should consult PPQ's *Export Program Manual* (XPM).

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 Maintenance

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

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

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*. Refer to the following website for a list of laboratories approved by USDA to test seed potatoes for the pathogen *Clavibacter michiganense* subsp. *sepedonicus* for export to Canada:

<http://www.aphis.usda.gov/ppq/pim/accreditation/Labs.pdf>

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.

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.

Responsibilities

PPQ and the Seed Certification Technical Committee (SCTC) 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 SCTC and industry representatives, PPQ will affect 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.

The participating grower **must** select the planting site for and properly maintain plantings of seed potatoes 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.

Requirements for Classes of Certified Seed Potatoes

When a class of seed potatoes is specified as being eligible for certification, the stock was previously certified as the specified class by an official seed potato certification agency. All seed potatoes 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 pathogen 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 1% of this increase **must** be pathogen 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 pathogen tested. Plants or minitubers selected for pathogen 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 or State equivalent will be eligible for certification as Generation 1—U.S. export seed potatoes.

Generation 2—U.S. Export Seed Potatoes

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

Plants **must** be inspected at least twice while growing and found to be in compliance with the tolerances specified in **Figure 4-5-1** below.

Factor	First Field Inspection	Second Field Inspection
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 4-5-1: 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 visually inspected at least twice and found to be in compliance with the tolerances specified in **Figure 4-5-2** below.

Factor	First Field Inspection	Second Field Inspection
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 4-5-2: 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 visually inspected at least twice and found to be in compliance with the tolerances specified in **Figure 4-5-3** below.

Factor	First Field Inspection	Second Field Inspection
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 4-5-3: 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 visually inspected at least twice and found to be in compliance with the tolerances specified in **Figure 4-5-4** below.

Factor	First Field Inspection	Second Field Inspection
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 4-5-4: Tolerances for Generation 5—U.S. Export Seed Potatoes

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 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 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 verified to be infested or infected with a serious pest that is exotic or has a limited distribution in the United States, i.e., PSTVd. Note that gangrene, *Phoma exigua* pv. *foveata*, and wart, *Synchytrium endobioticum*, **do not** occur in the U.S.
3. Any seed potatoes determined to be infested with root-knot nematode, *Meloidogyne* spp.; potato rot nematode, *Ditylenchus destructor*; cyst nematode, *Globodera* spp.; or brown rot, *Ralstonia solanacearum*. U.S. 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.

Grade and Identification

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

- ◆ Graded to meet U.S. No. 1 Seed Potato Grade¹
- ◆ 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 SCTC

1 U.S. Standards for Grades of Seed Potatoes, effective March 27, 1991, reprinted January 1997 are located at the following Web site address: <<http://www.ams.usda.gov/standards/potatoes.pdf>>.