PHYTOSANITARY IMPORT REQUIREMENTS FOR FRESH BLUEBERRY FRUITS (Vaccinium corymbosum L., Vaccinium virgatum Aiton and Vaccinium corymbosum hybrid) IMPORTED FROM THE U.S. INTO VIETNAM

General information

The phytosanitary requirement is developed by the Plant Protection Department (PPD), Ministry of Agriculture and Rural Development of Vietnam. Based on results of the Pest Risk Analysis (PRA) report, the pests listed in Annex 1 are concluded as quarantine pests associated with fresh blueberry fruits imported from the U.S. into Vietnam.

Fresh blueberry fruits imported from the U.S. into Vietnam shall comply with following requirements:

1. Registration

a) Packing houses for blueberry fruits exported to Vietnam shall be registered with the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA) as the designated National Plant Protection Organization (NPPO) of the U.S. (hereinafter referred to as APHIS);

b) Registered packing houses will maintain a list of orchards designated to produce blueberry fruits for export to Vietnam and must have a system in place to ensure that all fruits can be traced to the supplying orchard.

c) APHIS will ensure that blueberries are only exported to Vietnam from production orchards that are managed for pests of concern to Vietnam. Registered packing houses will be monitored by APHIS to ensure that safeguarding measures are in place to prevent entry and re-infestation of pests.

d) In the event of a non-compliance, registration records will be made available for inspection and audit by PPD on request.

2. Systems approach risk management measures

All conditions in the following items, which are applied for risk management, should be implemented:

a) APHIS ensures the efficacy of the systems approach to mitigate the risk of introducing quarantine pests.

b) During the initial export season, APHIS shall invite Vietnam quarantine experts to the U.S to conduct an on-site visit to a representative production area (or areas) to verify and confirm the implementation of the systems approach program to ensure shipment freedom from quarantine pests (Annex 1). This on-site survey should be cost-covered by exporting country.

2.1. Production field component

2.1.1. Conditions, which are applied for risk management of Drosophila suzukii, Rhagoletis mendax, Acrobasis vaccinia, Choristoneura rosaceana, Grapholita packardi, Exobasidium vaccinia and Monilinia vaccini-corymbosi at production field/orchards managed according to integrated pest management (IPM), are specified in Annex 2.

2.1.2. Following conditions are applied for risk management of Pseudomonas syringae pv. syringae, Pseudomonas viridiflava, Diaspidiotus ancyclus, Lepidosaphes ulmi, Pinnaspis strachani, Diaporthe vaccinia at production field/orchards:

a) APHIS will ensure that blueberries for export to Vietnam are grown in orchards managed in
accordance with integrated pest management (IPM) guidelines, as prescribed by the Federal/State Cooperative Agricultural Extension Service, to ensure that quarantine pests of concern to Vietnam are adequately controlled. Growers must maintain records of management, monitoring, and control activities undertaken in orchards throughout the growing season.

b) In the event of an incursion of Ceratitis capitata (Mediterranean fruit fly) into any blueberry production area of the continental United States, APHIS will notify PPD of the incursion within 96 hours. APHIS will immediately suspend the export of blueberries from any production orchards located within the Mediterranean fruit fly regulated area until eradication of the incursion is declared and notified to PPD.

2.2. Harvest component
- Fruit is hand harvested. Fruit exhibiting signs of insect damage is not harvested. Fruit exhibiting signs of Exobasidium vaccinia and Monilinia vaccinii-corymbosi is not harvested.
- The conditions, which are applied for risk management of quarantine pests (Annex I) at harvest stage, are specified in Annex 3.

2.3. Post-harvest component
- The conditions, which are applied for risk management of quarantine pests (Annex I) at Post-harvest stage, are specified in Annex 4.
- Zero tolerance for any quarantine pests (Annex I) in fruit packed for export to Vietnam.
- Following conditions are applied for sorting and packing process:
  a) In packing houses, fresh blueberry fruits shall be sorted at least two times before packing into the export carton using electronic sorters and/or hand sorting by packing house staff who have knowledge on plant pests to remove all the deformed or damaged fresh table fruits;
  - First before packing process
  - Second at packing line
  b) On the outside of the export packing boxes of fresh blueberry fruits shall be marked “For Vietnam” and with the grower lot numbers and the name (or registration code) of packing houses.
  c) The packing materials shall be compliant with ISPM 15.

2.4. Phytosanitary export inspection component
a) The conditions, which are applied for risk management of quarantine pests (Annex I) at Phytosanitary export inspection stage, are specified in Annex 5
b) The fruit in the consignments prior to shipment are subject to appropriate phytosanitary export inspection to ensure that the consignments are met all phytosanitary import requirements.
c) In case where one of these quarantine pest species (Annex I) found in the consignment, this consignment will be rejected.

2.5. Post-harvest storage and transport component
Conditions, which are applied for risk management of quarantine pests (Annex I) at Post-harvest storage and transport stage, are specified in Annex 6

3. Pre-export inspection
a) The import permit will be delivered by PPD to the importer. This import permit will be presented by U.S. exporter to APHIS to request a phytosanitary certificate.
b) The consignment must be inspected in accordance with official procedures and found to be free from quarantine pests specified in the *Annex 1*

c) A phytosanitary certificate issued by APHIS is required for each consignment. Each phytosanitary certificate must be included the additional declaration, stating in English:

“The consignment of blueberry fruits has been produced and prepared for export in accordance with the phytosanitary import requirements for importation of fresh blueberry fruits (*Vaccinium corymbosum* L., *Vaccinium virginatum* Aiton and *Vaccinium corymbosum* hybrid) from the U.S. into Vietnam”.

d) The consignment must be also practically free from soil, plant debris/leaf.

4. Import inspection

Upon arrival in Vietnam, every consignment will be inspected by PPD. If any quarantine pest (*Annex 1*) is detected during inspection, the consignment shall be treated according to Vietnamese phytosanitary regulations.

5. Review policy

PPD reserves the right to review this phytosanitary requirements at any time if quarantine pests are detected. The review is also considered when the phytosanitary status of the exporting country changes.
Annex 1: List of quarantine pests

Ceratitis capitata
Drosophila suzukii
Pseudomonas syringae pv. syringae
Pseudomonas viridiflava
Rhagoletis mendax
Diaspidiotus aenclus
Lepidosaphes ulmi
Pinnaspis strachani
Acrobasis vaccinii
Choristoneura rosaceana
Grapholita packardi
Diaportha vaccinii
Exobasidium vaccinii
Monilinia vaccinii-corymbosi
Annex 2: Production field/orchard component

1. For *Drosophila suzukii*

   - **Production Field Component**
   - Managed according to Integrated Pest Management (IPM) guidelines of the Federal/State Cooperative Extension Service
   - **For *Drosophila suzukii* (SWD)**
     - Application of chemical controls as soon as fruit is susceptible (beginning to turn from green to pink)
     - Monitoring to time pesticide controls
     - Trapping program for SWD adults - either at grower level or regional level
     - If any adults are detected and fruit is susceptible (turning from green to pink)
   - Chemical controls are applied every 7-14 days until final harvest
   - State and Federal laws require records to be maintained for all chemical treatments
   - Untreated fields with detections of SWD not allowed to pack for export
   - **Proceed to Harvest Component**

2. For *Rhagoletis mendax*

   - **Production Field Component**
   - Managed according to Integrated Pest Management (IPM) guidelines of the Federal/State Cooperative Extension Service
   - **For areas where *Rhagoletis mendax* (blueberry maggot) occurs**
     - Initial application of chemical controls based upon area monitoring
   - **For areas where *Rhagoletis mendax* (blueberry maggot) does not occur**
     - California, Oregon and Washington are officially maintained as pest-free areas
   - Trapping program for adults at production area level
   - If any adult is detected in the area
   - Chemical controls are applied every 7-14 days until final harvest
   - State and Federal laws require records to be maintained for all chemical treatments
   - Untreated fields with detections of blueberry maggot not allowed to pack for export
   - **Proceed to Harvest Component**
3. For Acrobasis vaccinia and Grapholita packardi

For areas where *Acrobasis vaccinia* (cranberry fruitworm) and/or *Grapholita packardi* (cherry fruitworm) occur as pests of blueberries.

- Acrobasis vaccinia is a rare pest of blueberries in Oregon and Washington and is not reported from California. Grapholita packardi is not a common pest of blueberries in all production areas.
- State and Federal laws require records to be maintained for all chemical treatments.

Monitoring presence in production field determines the need for controls.

- Chemical controls are applied as needed based upon results of monitoring in production field.

- Pheromone trapping to detect adults.
- Visual inspection (scouting) for presence of eggs.
- Scouting for presence of larvae.

Chemical controls may be applied based upon a phenology model.

PROCEED TO HARVEST COMPONENT

4. For Choristoneura rosaceana

For areas where *Choristoneura rosaceana* (Oblique banded leafroller) occurs as a pest of blueberries.

Choristoneura rosaceana is not a common pest of blueberries in all production areas.

- State and Federal laws require records to be maintained for all chemical treatments.

Monitoring presence in production field determines the need for controls.

- Chemical controls are applied as needed based upon results of monitoring in production field.

- Pheromone trapping to detect adults.
- Visual inspection (scouting) for presence of eggs.
- Scouting for presence of larvae.

Chemical controls may be applied based upon a phenology model.

PROCEED TO HARVEST COMPONENT
5. For *Exobasidium vaccinii*

- For *Exobasidium vaccinii* (leaf spot) from areas other than CA, OR, and WA.
- Exobasidium vaccinii primarily infects leaves, resulting in leaf spots, rarely causing spots on fruits.
- Exobasidium vaccinii is not known to occur in California, Oregon, or Washington.
- Managed according to integrated pest management (IPM) guidelines of the Federal/State Cooperative Extension Service.
- Fields producing blueberries for export are intensively managed for leaf spots in general.
- Chemical controls may be applied proactively or in response to detections of leaf spots through scouting in production fields.
- State and Federal laws require records to be maintained for all chemical treatments.
- Proceed to harvest component.

6. For *Monilinia vaccinii-corymbosi*

- For *Monilinia vaccinii-corymbosi* (mummy berry).
- Initial infection of isolated new plantings can be avoided by using disease-free dormant planting material and less susceptible cultivars.
- The symptoms of mummy berry in the field (and packing house) are very obvious. Diseased fruits often drop off the bush prematurely and will not be present at harvest.
- Managed according to integrated pest management (IPM) guidelines of the Federal/State Cooperative Extension Service.
- Monitoring is used to determine the presence of mummy berry disease in a production field - detection is the threshold for treatment with fungicidal controls.
- If mummy berry is detected, or as a prophylactic in fields that have a history of mummy berry infection, fungicidal controls are applied at leaf emergence to prevent primary infection and during bloom to prevent secondary infection.
- Proceed to harvest component.
- Mummy berry is an economically important disease in many blueberry production areas and IPM guidelines include specific recommendations for monitoring and control.
- There are a number of fungicides available to growers that provide effective protection against the disease.
- In fields where mummy berry is present, removing or burying overwintering mummies is effective to reduce the incidence and severity of the disease.
Annex 3: Harvest component

- **FRUIT IS HAND HARVESTED**
  - Marketable quality fruit is selected
  - Fruits exhibiting signs of *Exobasidium vaccini* or Mummy berry is not harvested

- **FRUIT IS TRANSPORTED TO PACKING FACILITY**

- **HARVEST BIN IDENTIFIED WITH GROWER LOT NUMBER FOR traceability**

- **FRUIT EXHIBITING SIGNS OF INSECT DAMAGE IS NOT HARVESTED**
Annex 4: Post-harvest component

POST-HARVEST COMPONENT

Representative sample is taken randomly from each load of fruit arriving at packing facility.

Fruit extraction test (using either sugar or salt solution) is used to verify fruit is free of larvae before packing.

Fruit which is free of free of larvae will be allowed to pack for export to Vietnam.

Zero tolerance for larvae in fruit packed for fresh consumption.

Lots of fruit with larva detection may not pack for export or fresh consumption.

POST-HARVEST COMPONENT (CONT).

The amount of air pressure varies but a typical pressure range would be from 34,000-17,000 cfm.

Fruits are emplaced onto a conveyor belt which moves the fruit through an air cleaner.

The air cleaner uses high pressure air to forcibly remove leaves, debris, and small or shriveled fruit.

Hitchhiking insects or external larvae likely dislodged.

Damaged, soft or potentially infested fruits are discarded.

Fruits are sorted mechanically to remove damaged, soft, or off color fruits.

Fruits that pass the sorting processes are packed into new packages.

Fruits are sorted by hand to remove damaged, soft or off color fruits.

Packages are labelled for traceability to production field.
Annex 5: Phytosanitary export inspection component

- Exporter requests inspection for export to Vietnam
- Authorized Certification Officials (ACOs) select a random sample of 2% of the shipment for inspection
- Fruits in the sample are visually inspected for SWD, Blueberry Maggot and other quarantine pests of concern to Vietnam
- Suspect fruits will be cut to inspect for internally feeding larvae (i.e. SWD, blueberry maggot, cranberry fruitworm, and cherry fruitworm)
- Shipment with detections of quarantine pests will be rejected for export to Vietnam
- ACOs verify entry conditions before selecting inspection sample
- Shipments that are free of quarantine pests and meet all entry requirements will receive phytosanitary certification

Annex 6: Post-harvest storage and transport component

- Chilling fruit immediately after harvest to less than 1.67°C (35°F) and maintaining cold fruit temperatures reduces or prevents further development of SWD
- Standard industry processes are used to quickly chill fruit immediately upon arrival at the packing facility
- Cold fruit temperatures are maintained throughout the packing, storage and shipping process
- Packed fruit is transported in refrigerated trucks to ports of export
- Cold temperatures are maintained during air or sea transport