

## **SYSTEMS APPROACH WORK PLAN FOR THE EXPORTATION OF APPLES FROM THE UNITED STATES INTO TAIWAN**

### **Preface**

The requirements set forth in this document, “Systems Approach Work Plan for the Exportation of Apples from the United States to Taiwan,” will be used as the basis for establishing export requirements and the necessary quarantine actions to be taken for the importation of U.S. apples into Taiwan. Apples must be produced, packed, and inspected in accordance with the guidelines specified in this work plan. In implementing this work plan, the U.S. Department of Agriculture’s (USDA’s) Animal and Plant Health Inspection Service (APHIS) will be acting as the designated representative of the American Institute in Taiwan (AIT) and the Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ) will be acting as the designated representative of the Taipei Economic and Cultural Representative Office in the United States (TECRO). The measures in this work plan provide an equivalent level of protection as those specified in the Quarantine Requirements for the Importation of Apples from Countries or Districts Where the Codling Moth is Known to Occur. Should an issue not specifically addressed by this work plan arise, appropriate representatives from AIT through its designated representative, APHIS, and TECRO through its designated representative, BAPHIQ, will enter into discussions to resolve the issue on a bilateral basis. An addendum to this work plan will be made by mutual agreement between AIT through its designated representative, APHIS, and TECRO through its designated representative, BAPHIQ.

### **1. Requirements for supplying orchards**

- 1.1 Apples must come from orchards that follow pest control practices as prescribed by the Federal/State Cooperative Extension Service.
- 1.2 Management activities for codling moth may include monitoring, phenology (degree-day) models to time treatments, chemical controls, the use of biological controls and mating disruption, or a combination of these or other control methods. The related manual and/or other management guidelines in support of these activities will be provided on request to APHIS and/or BAPHIQ inspectors during any scheduled inspection visits.
- 1.3 Growers will maintain records of codling moth management activities and will provide this information on request to APHIS and/or BAPHIQ inspectors during any scheduled visits. Growers will be identified by the grower lot number on the end panel of each carton of apples packed for export to Taiwan.
- 1.4 Before the fruit from any grower lot is submitted for packing, measures to evaluate the efficacy of orchard control programs will be implemented to eliminate lots with high risk of codling moth infestation.

### **2. Field inspection procedures**

- 2.1 Two months prior to the export shipping season (beginning on July 1 of each year), APHIS shall invite BAPHIQ quarantine inspector(s) to perform annual export on-site inspections in the production areas jointly with APHIS inspectors. APHIS shall provide the list of registered packinghouses at the inspector’s request during the onsite inspection.
- 2.2 BAPHIQ may dispatch quarantine inspector(s) to participate in the inspection, or APHIS may undertake the inspection on behalf of BAPHIQ based on agreed criteria as below:

- 2.2.1 There are no detection records of living codling moth at import inspection in the previous season.
- 2.2.2 On-site inspection was conducted by BAPHIQ in the last year.
- 2.3 If APHIS undertakes the inspection on behalf of BAPHIQ, they shall provide the inspection report to BAPHIQ.
- 2.4 All BAPHIQ expenses will be paid by the relevant exporter association if the on-site inspection is conducted by BAPHIQ.

### **3. Requirements of Packinghouses**

- 3.1 Packinghouses must be registered with the authorities of the United States.
- 3.2 Apples packed in the packinghouse and in cold storage for export to Taiwan must come from orchards meeting the conditions as described in Section 1. The integrity of shipments packed for export to Taiwan must be maintained.
- 3.3 Packinghouses must be equipped with a sorting apparatus.
- 3.4 Sufficient lighting will be provided in work areas for visual examinations.
- 3.5 Each packinghouse must have access to a qualified pest management consultant.
- 3.6 Packinghouses must provide adequate equipment for the performance of inspections and other related work.
- 3.7 Appropriate control measures should be taken to eliminate any live quarantine pests inside the packinghouse at the beginning of the shipping season. If it is deemed necessary, sanitation might be taken in order to keep the packinghouse clean.
- 3.8 Apples must be sorted before packing to remove all deformed and damaged fruits. Packing facilities will review codling moth damage symptoms with sorting and packing crews and provide visual aids for reference. Packinghouse employees will be encouraged to report suspect lots. Culled fruits should be placed in containers and removed from the packing area at the end of the day.
- 3.9 Apples must be appropriately safeguarded against quarantine pests when transporting packaged fruit from the packinghouses to the export carriers or containers.

### **4. Pre-screening procedures**

- 4.1 Each packinghouse facility will have a minimum of two technicians trained by APHIS or its cooperators who will be responsible for carrying out the requirements of the pre-screening procedures.
  - 4.1.1 Cooperators are defined as Authorized Certification Officials from the Washington State Department of Agriculture, Oregon State Department of Agriculture, California State or County Department of Food and Agriculture, or the Idaho State Department of Agriculture.
- 4.2 A packinghouse pre-screening procedure, consisting of a random 600 fruit sample per lot per day by variety, will be taken from the cull bins. From that sample, all suspect fruits will be cut and inspected. A minimum of 60 fruits from the sample

will be cut.

- 4.3 Should a live codling moth be detected during the packinghouse pre-screening, all fruit from that grower lot will be ineligible for export to Taiwan for the remainder of the current shipping season.
- 4.4 Should 1 percent or more of fruit (6 in 600) with wormholes be detected during the packinghouse prescreening, that variety from that grower lot run will be ineligible for export to Taiwan for the remainder of the current shipping season.
- 4.5 Packinghouse officials will provide prescreening records by grower lot and variety by day to APHIS or designated regulatory officials who will verify that the cartons presented for inspection are eligible for export to Taiwan.
- 4.6 The prescreening records will indicate the degree of codling moth damage found during the packinghouse screening process.
- 4.7 It is the responsibility of the packinghouse to ensure that each carton presented can be uniquely identified as to grower lot and variety and the date when the fruit was packed or presized.

## **5. Export inspection procedures**

- 5.1 Regulatory officials will inspect an equivalent of 3 percent of the cartons in a shipment. All fruit in each carton or carton equivalent will be inspected. All suspect fruit and 1 percent of the fruit in the carton or carton equivalent will be cut, with a minimum of 2 fruit per carton or carton equivalent to be cut.
- 5.2 Shipments containing fruit with insect holes/tunnels (defined as feeding injury that extends below the skin of the fruit and well into the flesh) will be rejected and ineligible for phytosanitary certification.
- 5.3 Shipments containing more than a 0.5 percent of fruit with codling moth stings will be rejected and ineligible for phytosanitary certification.
- 5.4 Should live codling moth be found during the export inspection of a particular grower lot, the shipment will be rejected and the apples from that grower lot will be excluded from the Taiwan export program for the remainder of the season.
  - 5.4.1 APHIS will conduct an investigation to identify and address any deficiency in the system.
- 5.5 A rejected lot may not be reconditioned or resubmitted for inspection.
- 5.6 The phytosanitary certificate will contain an additional declaration stating “The fruit has been thoroughly inspected and found free from *Cydia pomonella*, *Conotrachelus nenuphar*, *Erwinia amylovora*, *Frankliniella occidentalis*, *Rhagoletis pomonella*, and *Anarsia lineatella*.” Should the pest list be changed and the quarantine requirements for U.S. apples be revised by BAPHIQ, the additional declarations shall be amended accordingly.
- 5.7 The name of the packinghouse and location (city and state) must be stated on the phytosanitary certificate. Packing facilities must maintain a system that allows the fruit to be traced back to the grower lot.
- 5.8 The name of the packinghouse must either be on each carton of fruit or on a pallet tag affixed to the pallet of fruit. Additionally, the grower lot and the date the fruit

was packed and/or pre-sized will be identified on the carton.

- 5.9 Fruit consignments not exported within two weeks of the inspection date must be re-inspected before shipment and a new phytosanitary certificate will be issued.

## **6. Fumigation Treatment**

- 6.1 When grower lots or shipments fail to meet the requirements of the “Systems Approach Work Plan For The Exportation of Apples From The United States Into Taiwan,” as detailed in Sections 4.3, 4.4, 5.2, and 5.3 of the work plan, precautionary fumigation with methyl bromide (as outlined in the fumigation schedule in Section 6.9 below) would allow these lots or shipments to qualify for export to Taiwan. Fumigation is not an option if there is non-compliance with the work plan.
- 6.2 Fumigation will be performed in fumigation chambers certified by APHIS for conducting PPQ quarantine treatments. Precise requirements as specified in the USDA-APHIS-PPQ treatment manual must be met for fumigation chambers to be certified. Fumigation facilities will be re-certified yearly based on the requirements in the PPQ Treatment Manual.
- 6.3 APHIS will annually provide BAPHIQ with the list of fumigation facilities that are approved and authorized by APHIS before the apple export season begins, including the name and location of each approved facility.
- 6.4 During any scheduled on-site inspections by BAPHIQ at orchards and packinghouses, BAPHIQ will examine the gas-tightness of chambers at chosen fumigation facilities. The testing methods and the standard of gas-tightness will be applied in compliance with U.S. regulations on fumigation.
- 6.5 For shipments of apples inspected and qualified for export with fumigation treatment, the phytosanitary certificate shall include information on the treatment date, treatment temperature, fumigant concentration, name of fumigation facility, and the treatment duration.
- 6.6 Export inspection procedures: Regulated officials will inspect the equivalent of 2 percent of the cartons in a fumigation shipment. All fruit in each carton or carton equivalent will be inspected.
- 6.7 Should live codling moth be found during the export inspection, provision 5.4 shall apply to the fumigated apples. In addition, all fumigation treatments from the involved fumigation facility will be immediately suspended. The fumigation facility will be reinstated after APHIS completes an investigation and any identified deficiencies have been corrected.
- 6.8 Should live codling moth be found upon import inspection in Taiwan, Section 9 shall apply. In addition, all fumigation treatments from the involved fumigation facility will be immediately suspended. APHIS will complete an investigation and submit the report of the investigation to BAPHIQ for review and approval for reinstatement. BAPHIQ will provide a written response to the investigation report within two weeks (14 consecutive days) indicating reinstatement or identifying specific information or corrective action needed.
- 6.9 Requirement for Fumigation Treatment

The following fumigation schedule is for bins and adequately ventilated export

boxes:

Temperature	Dosage	Duration
6 degrees C to less than 12 degrees	64 g/m <sup>3</sup> (4 lbs/1000 ft <sup>3</sup> )	2 hours
12 degrees C to less than 17 degrees	48 g/m <sup>3</sup> (3 lbs/1000 ft <sup>3</sup> )	2 hours
17 degrees C to less than 22 degrees	40 g/m <sup>3</sup> (2.5 lbs/1000 ft <sup>3</sup> )	2 hours
22 degrees C and above	32 g/m <sup>3</sup> (2 lbs/1000 ft <sup>3</sup> )	2 hours

## 7. Safeguarding Requirements for Transportation

- 7.1 Apple consignments transiting through third countries or districts must follow the “Quarantine Requirements for Transshipment of Plants or Plant Products through Countries or Districts Where The Quarantine Pests are Known to Occur.”
- 7.2 During shipping and upon arrival, the lock of the ship’s compartment or seal of the container shall not be unlocked or broken by anyone other than official plant protection/quarantine or other governmental agency personnel.

## 8. Import Inspection

- 8.1 Phytosanitary certificates will contain the additional declarations on the certificates in conformity with the aforementioned inspection requirements.
- 8.2 Procedures, methods and frequency of import inspection are based on the "Plant Protection and Quarantine Act" and other related regulations.
- 8.3 Consignments, which lack phytosanitary certificates issued by the United States or fail to meet the inspection requirements, will be denied entry.

## 9. Procedures to Follow After Detection of Codling Moth During Import Inspection

- 9.1 Should live codling moth be found upon inspection at port of entry, the consignment will be re-exported or destroyed.
- 9.2 BAPHIQ will immediately notify APHIS of the detection of codling moth. BAPHIQ will provide all information found on the end panel of the box from which the live codling moth was taken and a copy of the phytosanitary certificate(s) issued for that shipment.
- 9.3 Phytosanitary certification of fruit from the identified grower lot and packinghouse shall be suspended immediately upon receipt of the information. The suspension of the identified grower lot will remain in effect for the remainder of the current shipping season.
- 9.4 Any shipment from that packinghouse that is certified for Taiwan prior to the date of suspension and that has a “loaded-on-board date” within 3 days of the suspension date will remain eligible for export to Taiwan. Shipments from this packinghouse will be subject to a more stringent inspection. Should live codling

moth be detected in Taiwan, provisions 9.1, 9.2, and 9.3 shall be applied.

- 9.5 A confirmation of the identity of the packinghouse and its physical location will be provided to BAPHIQ by APHIS.

Within two weeks (fourteen consecutive days) APHIS will conduct an investigation and implement any necessary corrections. APHIS will provide to BAPHIQ a written investigation report within 2 weeks (fourteen consecutive days) identifying specific corrective action taken. Interception of codling moth on shipments with the date of inspection prior to the completion of the 14 day investigation and correction period for any detection will not count towards either the packinghouse or program suspension provisions as described in Section 9, but the provisions of Section 9.3 shall be applied.

- 9.5.1 If the results of the investigation do not indicate any failure of the packinghouse, APHIS should provide to BAPHIQ a written investigation report and lift the suspension of the packinghouse simultaneously.
- 9.5.2 If the results of the investigation show a failure due to the packinghouse, APHIS shall provide BAPHIQ with a report identifying improvements to be made. The suspension of the packinghouse will be lifted after BAPHIQ reviews and approves the APHIS report and receives verification from APHIS that any necessary actions taken to correct non-compliance have been implemented.
- 9.6 Fruit from other grower lots and packinghouses will remain eligible for export to Taiwan but will be subject to stringent inspection.
- 9.7 If the suspended grower lot and packinghouse are registered to export apples to Taiwan next year, they shall be inspected by BAPHIQ during the next audit to ensure the corrections have been implemented.
- 9.8 Detection of a second codling moth from the same packinghouse during the same shipping season will result in the suspension of the packinghouse from the export program for the remainder of the season, except as noted in section 9.5. Sections 9.1 through 9.5 shall be applied.
- 9.9 Subsequent detections of codling moth from different packinghouses will follow the provisions 9.1 through 9.8.
- 9.10 If three packing houses are suspended within one shipping season, the export program will be suspended for the remainder of the shipping season.
- 9.11 Apples certified for Taiwan prior to the date of export program suspension as stated in provision 9.10 will remain eligible for export to Taiwan from a non-source packinghouse if the shipment has a loaded-on-board date within 14 days of the inspection date. These shipments will be subject to a more stringent inspection. Should a live codling moth be detected, provisions 9.1, 9.2 and 9.3 shall be applied.
- 9.12 Upon receipt of the notification of the suspension, APHIS shall conduct an investigation and make any necessary corrections. APHIS will invite BAPHIQ to send inspector(s) to join the investigation report, including any identified corrective measures, should accompany the invitation. All expenses will be paid by the relevant export association. APHIS will report the results of the investigation to BAPHIQ for review. BAPHIQ will provide a written response

to the investigation report indicating reinstatement or identifying specific information or corrective action needed.

- 9.13 If the results of the investigation indicate a system failure and system improvement is required, APHIS shall provide BAPHIQ with a report identifying improvements to be made.
- 9.14 The suspension will be lifted immediately after BAPHIQ reviews and approves the APHIS report and receives verification from APHIS that any necessary actions taken to correct non-compliance have been implemented; but no later than the beginning of the next shipping season (July 1).
- 9.15 Reinstatement of any suspended grower lots and packinghouses will occur no later than the beginning of the next shipping season (July1).