

# Quarantine Requirements for the Importation of Fresh Blueberries (*Vaccinium* spp.) from Peru

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(In case of any discrepancy between the Chinese text and the English translation thereof, the Chinese text shall govern.)

1. The importation of fresh blueberries (*Vaccinium* spp.) from Peru shall be regulated pursuant to the ‘Quarantine Requirements for the Importation of Plants or Plant Products into the Republic of China’ along with the regulations in these requirements.
2. Requirements for supplying orchards
  - 2.1 The supplying orchards must register to Servicio Nacional de Sanidad Agraria del Peru (hereinafter referred to as SENASA). The registration content must include the name, code, and location of the registered orchards.
  - 2.2 The supplying orchards must be certified with traceable records. The control measures of *Ceratitis capitata* and other pests are under the supervision of SENASA. Moreover, records of pest control measures shall be maintained for audit.
3. Requirements for packing houses
  - 3.1 Packing houses shall be registered by SENASA. The registration content must include the name, code, and location of the registered packing houses.
  - 3.2 Packing houses shall be equipped with insect-proof equipment. Windows or air holes must be covered with a screen of fine meshes with diameter of 1.6mm or less. Entrances or doors shall be equipped with air curtains (where air is blown downwards), rubber curtains, or other insect-proof equipment.
  - 3.3 Packing houses shall be equipped with packing equipment to sort blueberries mechanically or manually and remove all infected fruits, and sufficient light to perform inspections.
  - 3.4 Packing houses shall provide adequate apparatuses and equipment to facilitate SENASA inspectors to perform inspections, pest identification and other required work.
  - 3.5 Prior to the start of the packing process to Taiwan each year, appropriate pest control measures shall be taken to remove pests inside the packing house. During the period of packing process, the sanitation of the packing house must be maintained to avoid pests invasion.
  - 3.6 The packing houses shall confirm that the blueberries to be exported to Taiwan which they have packed are from supplying orchards which are registered by SENASA. Blueberries not sourced from supplying orchards registered by SENASA can not be packed and exported to Taiwan, and they can not be packed with blueberries to be exported to Taiwan at the same time. Moreover,

a space that is properly separated shall be provided for storing blueberries to be exported to Taiwan.

3.7 Inspectors of SENASA shall inspect the packinghouses each year prior to the start of the packing process and confirm that they comply with these Quarantine Requirements.

3.8 Every July, or other designated period agreed by Bureau of Animal and Plant Health Inspection and Quarantine (hereinafter referred to as BAPHIQ), SENASA shall provide BAPHIQ with the list of names, codes, and location of the registered packing houses that meet the aforementioned requirements.

4. Fresh blueberries shall be packed with new packing materials, each packed carton or pallet shall be clearly labelled with the name or code of the registered packing houses, and transported in one of the following packing methods:

4.1 Packed by closed packing.

4.2 Packed with sealed packing-carton. If the packing-carton has ventilation holes, the holes shall be covered with a screen of fine meshes with diameter of 1.6mm or less.

4.3 Packed on pallet or tray. The pallet or tray shall be entirely wrapped with a screen of fine meshes with diameter of 1.6mm or less, or with other insect and mite proof packing materials.

4.4 Transported by sealed container, doors of the container shall be sealed. The container and seal number shall be stated on the phytosanitary certificate issued by SENASA.

5. Importation of fresh blueberries from Peru must be treated by one of the following methods:

5.1 Importation with in-transit cold treatment during sea transportation.

5.2 Importation via air or sea transportation after the completion of cold treatment prior to export.

5.3 Importation via air or sea transportation after the completion of fumigation treatment prior to export.

6. In-transit cold treatment during sea transportation:

6.1 Fresh blueberries to be exported to Taiwan shall be packed in the packing houses following the requirements mentioned in Section 3.

6.2 Temperature and duration of cold treatment: temperature in central pulp shall be at 1.11°C (or below) for 15 days (or above), or be at 1.67°C (or below) for 17 days (or above).

6.3 Pre-cooling treatment

6.3.1 Prior to the in-transit cold treatment during sea transportation, fresh blueberries must first undergo pre-cooling treatment. The pre-cooling temperature shall not be higher than the designated temperature for cold treatment.

6.3.2 SENASA shall provide pre-cooling certificate, which shall clearly show the pre-cooling temperature before cold treatment. Alternatively, the pre-cooling temperature before cold treatment shall be stated on the phytosanitary certificate.

#### 6.4 Requirements for conducting cold treatment

6.4.1 For refrigerated containers used for in-transit cold treatment, the temperature probes have to be calibrated by SENASA for each use. The temperature calibration records must have the stamp of SENASA and the signature of the inspector, or the temperature calibration records shall be stated on the phytosanitary certificates.

6.4.2 The temperature probes used to measure the temperature of the central pulp of the fruit in refrigerated containers must be inserted and secured in the fruit pulp.

6.4.3 If automatic temperature recorders are to be used in the refrigerated containers, then a minimum of three temperature recorders shall be placed in the middle row of the consignment, 50cm to 100cm from the container doors, with one recorder in the center at the top of the container, and one each on the left- and right-hand sides at the bottom of the container.

6.4.4 If the refrigerated containers are equipped with temperature probes and computerized temperature recording facilities, then three temperature probes shall be used. The probes shall be placed in the middle row of the consignment, 50cm to 100cm from the container doors, with one probe in the center at the top of the container, and one each of the left- and right-hand sides at the bottom of the container.

6.4.5 If temperature is not recorded in a continuous way, then the temperature in the refrigerated containers shall be recorded at least once every hour.

6.4.6 The duration of cold treatment shall be deemed to commence when the temperature of the central pulp of the fruit has reached the designated temperature.

#### 6.5 Requirements for export inspection

6.5.1 Export inspection shall be conducted at location that equipped with insect-proof apparatus.

6.5.2 At the time of export of fresh blueberries, SENASA shall sample at least two percent of the packed cartons of every shipment on a random basis.

6.5.3 The phytosanitary certificate issued by SENASA shall state that fresh blueberries have been inspected and found free from *Ceratitis capitata* and other quarantine pests designated by BAPHIQ prior to cold treatment.

6.5.4 The refrigerated containers must be sealed while the cold treatment commences, with the container numbers and container seal numbers clearly marked on the phytosanitary certificates issued by SENASA.

6.5.5 Fresh blueberries passed inspection and given phytosanitary certificate shall be exported within 14 days, if the duration expired, the lot shall be re-inspected and phytosanitary certificate shall be reissued.

6.6 The refrigerated containers shall not be opened or moved upon arrival until they are inspected by BAPHIQ.

## 7. Cold treatment prior to export

7.1 Fresh blueberries to be exported to Taiwan shall be packed in the packing houses following the requirements mentioned in Section 3 and be transported in closed packaging according to Section 4.

7.2 Temperature and duration of cold treatment: temperature in central pulp shall be at 1.11°C (or below) for 15 days (or above), or be at 1.67°C (or below) for 17 days (or above).

### 7.3 Requirements for cold treatment facilities:

7.3.1 Cold treatment facilities must be permanent facilities equipped with the equipment for temperature measuring, temperature recording and locking (sealing).

7.3.2 The fluctuation of temperature inside the cold treatment facilities shall be within the range of  $\pm 0.6^{\circ}\text{C}$ .

7.3.3 SENASA shall send a list of approved cold treatment facilities, including names, codes, treatment capacity, address and managers' names to BAPHIQ before the export of blueberries each year.

7.3.4 Prior to annual commencement of the cold treatment facility, SENASA shall invite BAPHIQ to send inspector(s) to verify the facility. The verification items shall include temperature calibration and a 24-hour running test for empty chambers.

### 7.4 Requirements for conducting cold treatment

7.4.1 Cold treatment shall be conducted at cold treatment facilities that have been inspected and approved by BAPHIQ and SENASA.

7.4.2 When conducting cold treatment, four temperature probes shall be used to measure the central pulp temperature of fresh blueberries. The temperature probes shall be inserted into the fruit pulp core and secured. Another two temperature probes shall be used to measure chamber temperature. Each temperature probe shall be placed at an appropriate position.

7.4.3 When cold treatment is being conducted, the treatment facilities shall be sealed and locked.

7.4.4 During cold treatment, the temperature inside the cold treatment facility shall be automatically recorded at least once every hour. SENASA inspectors shall monitor the cold treatment and sign the temperature record sheet on a daily basis.

### 7.5 Requirements for export inspection

7.5.1 Export inspection shall be conducted at location that equipped with insect-proof apparatus.

- 7.5.2 At the time of export of fresh blueberries, SENASA shall sample at least two percent of the packed cartons of every shipment on a random basis.
- 7.5.3 If any development stage of live fruit fly was found during export inspection, the lot of fresh blueberries is prohibited exporting to Taiwan, and re-inspection is not allowed. The facility where the lot was treated shall be suspended from treatment operation, SENASA shall investigate the cause of detection. SENASA shall notify BAPHIQ the aforementioned cause, investigation findings and improvement measures. The facility shall only resume its operation after the investigation finished and improvement measures were taken and approved by BAPHIQ.
- 7.5.4 The phytosanitary certificates issued by SENASA shall include the name or code of the approved cold treatment facility, time of beginning and end of treatment, treatment temperature, duration and date of treatment, and the fresh blueberries have been inspected and found free of *Ceratitis capitata* and other quarantine pests designated by BAPHIQ. Complete cold treatment record sheets with the signatures of SENASA inspectors must accompany by the importation.
- 7.5.5 Fresh blueberries passed inspection and given phytosanitary certificate shall be exported within 14 days, if the duration expired, the lot shall be re-inspected and phytosanitary certificate shall be reissued.

## 8. Fumigation treatment prior to export

- 8.1 Fresh blueberries to be exported to Taiwan shall be packed in the packing houses following the requirements mentioned in Section 3 and be transported in closed packaging according to Section 4.
- 8.2 Benchmark of fumigation treatment
- 8.2.1 Fumigation treatment chemical: methyl bromide. Fumigation treatment temperature: 15.5°C or above, chemical dosage: 32 grams/m<sup>3</sup>, treatment time: 3.5 hours.
- 8.2.2 The volume of goods to be fumigated shall not exceed 80 percent of total capacity of the fumigation chamber.
- 8.3 Fumigation facilities shall fulfill the following requirements for approval:
- 8.3.1 Facilities shall be registered and approved by SENASA.
- 8.3.2 Facilities shall be fixed (non-movable) and equipped with the following apparatus:
- 8.3.2.1 A safe chemical application system that is capable to deliver chemical into the chamber and control dosage from outside.
- 8.3.2.2 Equipped with air circulation, intake and exhaust equipment in the facility.

- 8.3.2.3 Leak-proof detecting holes located at upper, middle and bottom of opposite angle of the chamber for measuring chemical concentration from outside.
- 8.3.2.4 Chamber temperature measuring device.
- 8.3.2.5 Lock or seal to prevent door opening before the treatment is completed.
- 8.4 SENASA shall provide calibrated methyl bromide concentration measuring instrument that has calibration record within one year for the test before operation every year. Fumigation chambers shall be tested before treatment every year by SENASA and BAPHIQ inspectors to meet the air-tight requirements. The chamber shall be applied with Methyl Bromide at dosage of  $32 \text{ g/m}^3$ , the average gas concentration in the upper, middle and lower parts of the chamber shall be maintained at no less than 70% of the applied dosage at 48 hours after application.
- 8.5 SENASA shall provide a list of qualified fumigation facilities, including names, codes, treatment capacity, address and managers' names to BAPHIQ two months before operation every year.
- 8.6 Requirements for fumigation
- 8.6.1 Fumigation shall be done in facilities approved by SENASA and BAPHIQ.
- 8.6.2 During fumigation, the packages of fresh blueberries shall allow fumigant to fully penetrate to ensure effectiveness.
- 8.6.3 During fumigation, facilities shall be sealed and locked, the fumigation shall be under supervision of SENASA and BAPHIQ.
- 8.6.4 Fresh blueberries shall be kept in the chamber for an hour after treatment is finished, with air circulation and exhaust turning on before the seal opened, followed by three hours of exposure in air using a fan or an air circulation device at place equipped with insect-proof apparatus or covered with an insect-proof net of fine meshes with diameter of 1.6mm or less, to clear fumigant residue.
- 8.7 Fresh blueberries to be exported to Taiwan after fumigation treatment shall be packed in the packing houses following the requirements mentioned in Section 3 and be transported in closed packaging according to Section 4.
- 8.8 Requirements for export inspection
- 8.8.1 Each year, SENASA shall provide operation plan including treatment date and quantity of each fumigation facility one month before conducting fumigation treatment for fresh blueberries exporting to Taiwan and invite BAPHIQ to dispatch inspector(s) to conduct joint export inspection.
- 8.8.2 Export inspection shall be conducted at location that equipped with insect-proof apparatus.

- 8.8.3 At the time of export of fresh blueberries, SENASA shall sample at least two percent of the packed cartons of every shipment on a random basis.
- 8.8.4 If any development stage of live fruit fly was found during export inspection, the lot of fresh blueberries is prohibited exporting to Taiwan, and re-inspection is not allowed. The facility where the lot was treated shall be suspended from treatment operation, SENASA shall investigate the cause of detection. SENASA shall notify BAPHIQ the aforementioned cause, investigation findings and improvement measures. The facility shall only resume its operation after the investigation finished and improvement measures were taken and approved by BAPHIQ.
- 8.8.5 The phytosanitary certificate issued by SENASA shall co-signed by BAPHIQ inspector and contain following statements:
- 8.8.5.1 Name or code of fumigation facility, the chemical used and its concentration, time of beginning and end of fumigation, temperature, date and seal number.
- 8.8.5.2 The fresh blueberries are inspected and found free from *Ceratitis capitata* and other quarantine pests designated by BAPHIQ.
- 8.8.6 Fresh blueberries passed inspection and given phytosanitary certificate shall be exported within 14 days, if the duration expired, the lot shall be re-inspected and phytosanitary certificate shall be reissued.
- 8.8.7 If overtime work is requested, SENASA shall request the BAPHIQ inspector the day before overtime work, the time of overtime work is as followed:
- 8.8.7.1 Overtime work time for weekdays from 5:30 PM and shall not pass 10:30 PM.
- 8.8.7.2 Overtime work time for weekends and holidays from 8:30 AM and shall not pass 10:30PM.
- 8.8.8 Overtime work exceeding the aforementioned time shall be conducted only under permission of the BAPHIQ inspector.

## 9. Requirements for import inspection

- 9.1 The temperature of the refrigerated container of in-transit cold treatment during sea transportation shall be inspected and verified in accordance with the following stipulations:
- 9.1.1 The temperature records of refrigerated containers must be read on site during the inspection. If it is not possible to read the temperature records, the information of temperature records must be downloaded on site for reading at a later time. The temperature record sheets are still required to be printed out at a later time for filing with inspection record sheets.

- 9.1.2 If the duration of continuous cold treatment of fresh blueberries fails to meet the requirement for treatment duration upon arrival in Taiwan, the treatment is allowed to be continued after arrival at the port until the designated requirements for treatment are met. Then the application for inspection is acceptable. However, if the refrigerated containers have already been opened prior to the on-site inspection or have been found to fail to meet the requirements for cold treatment during BAPHIQ's on-site inspection, the cold treatment for the consignment shall not be continued. In addition, the particular lot of blueberries would be deemed as non-compliant to the temperature standards and failing to meet the import quarantine inspection.
- 9.1.3 The temperature record of the readings of all temperature recorders in the refrigerated containers must meet the requirements for treatment temperature. If the temperature readings of any one of the temperature recorders fail to meet the requirements, the particular lot of blueberries would be deemed as non-compliant to the temperature standards and failing to meet the import quarantine inspection.
- 9.1.4 If two or more of three temperature recorders in the refrigerated containers become faulty or loose and fail to obtain the temperature readings, it would be determined that the particular lot of fresh blueberries would be deemed as non-compliant to the temperature standards and failing to meet the import quarantine inspection.
- 9.2 If the consignment of fresh blueberries is not accompanied with the phytosanitary certificate issued by SENASA, or the content of the phytosanitary certificate does not meet the quarantine requirements, the correct certificate must be re-submitted, or the consignment shall be returned or destroyed.
- 9.3 If the consignment of fresh blueberries with in-transit cold treatment during sea transportation is not accompanied with the pre-cooling certificate or the temperature calibration records, or the content of the pre-cooling certificate or the temperature calibration records does not meet the quarantine requirements, the correct certificate or records must be re-submitted, or the consignment shall be returned or destroyed.
- 9.4 If the consignment of fresh blueberries with cold treatment prior to export is not accompanied with the cold treatment record sheets, or the content of the cold treatment record does not meet the quarantine requirements, the correct record must be re-submitted, or the consignment shall be returned or destroyed.
- 9.5 If BAPHIQ finds any live fruit fly during import inspection, it shall determine that the consignment of fresh blueberries has failed to meet quarantine requirements, while immediately informing SENASA to suspend the export of fresh blueberries of Peru. Export of fresh blueberries of Peru shall not resume until SENASA has investigated and determined the cause for the presence of live fruit fly has adopted effective remedial measures, and has obtained approval from BAPHIQ.

9.6 If BAPHIQ finds any live quarantine pests other than fruit fly during import inspection, the matter shall be dealt with in accordance with relevant quarantine regulations.

## 10. Special Requirements

10.1 Every July, or other designated period agreed by BAPHIQ, SENASA should invite BAPHIQ to conduct an on-site audit on the operation of blueberries for export to Taiwan.

10.2 For cold treatment prior to export, every year, SENASA shall invite BAPHIQ to send inspector(s) to Peru to inspect and verify the operations of cold treatment and export inspection.

10.3 For fumigation treatment prior to export, SENASA shall invite BAPHIQ to dispatch inspector(s) to conduct air-tightness test, fumigation treatment and export inspection two months before operation every year.

10.4 All costs associated with the audit visit mentioned on 10.1, 10.2 and 10.3 should be borne by Peru.

10.5 If SENASA has implemented the relevant measures set accordingly in these quarantine requirements to mitigate quarantine pests of concern, and when the following conditions are met, the audit may be conducted by SENASA on behalf of BAPHIQ in that year, provided that SENASA should invite BAPHIQ to conduct an audit at least once in every three years:

10.5.1. Importation of fresh blueberries in that year are not treated by cold treatment prior to export nor fumigation treatment prior to export.

10.5.2 The packing houses have been audited and approved by BAPHIQ at least once within the past three years;

10.5.3 Significant volume of trade has occurred in the previous year. The trade volume is enough for making an assessment that the production and export operations are in line with these quarantine requirements.

10.5.4 There are no detections of *Ceratitis capitata* or other BAPHIQ designated quarantine pests during import quarantine inspection in the previous year.

10.6 If the SENASA undertakes the on-site audit on behalf of BAPHIQ, it shall provide the report to BAPHIQ within one month after the inspection.