

Animal and Plant Quarantine Agency

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3 September 2020

Ing. César A. De La Cruz Lezcano Director General SENASA Ministry of Agriculture and Irrigation Peru

Dear Ing. César A. De La Cruz Lezcano,

This letter is in relation to the revision of the Plant Quarantine Import Requirements for Fresh Mango from Peru.

Animal and Plant Quarantine Agency (APQA) would like to inform you that the revision process of **Plant Quarantine Import Requirements for Fresh Mango from Peru** finished and it has been taking effect from 1 September 2020.

Thank you for your cooperation with this matter.

Sincerely yours,

Jang Bu Kim

Kim Jungbin Director, Export Management Division Department of Plant Quarantine, APQA

Attachment : Plant Quarantine Import Requirements for Fresh Mango from Peru

Cc.: The Embassy of Peru in the Republic of Korea





Plant Quarantine Import Requirements for Fresh Mango from Peru

1. Plants and areas subject to the requirements

Fresh fruits of mango (Mangifera indica L.) commercially produced in Peru

2. Means of conveyance

Ship cargo or Air cargo

3. Registration of Export Orchards and Export Packinghouses and Hot water treatment facilities

- 3.1. Orchards growing mango for export to Korea (hereinafter referred to as "export orchards"), packinghouses including fruit storages for export to Korea (hereinafter referred to as "export packinghouses"), and hot water treatment facilities shall be registered with and managed by the National Plant Protection Organization of Peru (hereinafter referred to as "SENASA").
- 3.2. SENASA shall provide the list of registered export orchards, export packing houses and hot water treatment facilities to the National Plant Protection Organization of the Republic of Korea, Animal and Plant Quarantine Agency, (hereinafter referred to as "<u>APQA</u>") and the list of registered export orchards, export packing houses and hot water treatment facilities shall be approved by <u>APQA</u> each year before commencement of export.

4. Management and supervision of export orchards

SENASA shall oversee and supervise registered export orchards to make sure that they implement Integral Pest Management (IPM) in order to prevent outbreaks of Korea's pests of concern (in Annex 1) in export orchards.

5. Management and supervision of export packinghouses

SENASA shall check sanitary conditions of export packing houses and hot water treatment facilities each year before commencement of export and shall oversee and supervise to ensure that the following measures are in place.

- 5.1. To make sure that export packing houses and hot water treatment facilities are kept clean and disinfected regularly.
- 5.2. To make sure that export packing houses and hot water treatment facilities are equipped with facilities such as installation of insect-proof net to prevent pest recontamination.
- 5.3. To make sure that mango fruits from non-export orchards, and other fresh fruits are not sorted together with mango fruits from export orchards, and are not mixed or loaded together
- 5.4. To make sure that contaminants such as leaves, twigs and soil are not included in export consignment.

6. Hot water treatment

Peruvian mango fruits for export to Korea shall be hot water treated at over 47° C, making sure that the fruit core temperature reaches 46° C for at least 1 minute in accordance with hot water treatment schedule in Annex 2.

7. Packaging and labeling

- 7.1. Each carton for export to Korea shall be labeled with registration number of export orchards and export packinghouses and have the marking, "for Korea".
- 7.2. All ventilation holes of each carton shall be covered with nets with a mesh size of less than 1.6mm × 1.6mm in diameter; or each carton or the whole pallet shall be packed with nets with a mesh size of less than 1.6mm × 1.6mm in diameter or wrapped with poly vinyl.

7.3. SENASA shall ensure that appropriate phytosanitary measures such as installation of insect-proof net are taken on each carton or pallet to avoid pest re-contamination during storage or conveyance.

8. Export Inspection and Certification

- 8.1. SENASA inspectors shall carry out export inspection on at least 2% of the lot (The amount covered by one hot water treatment shall be regarded as one lot) that has been packed in cartons after one hot water treatment session.
- 8.2. Export inspection shall be carried out in a separate room or inspection area designated by SENASA which is sealed or equipped with insect proof facilities to prevent entry of pests and inspection tools.
- 8.3. In case any live fruit fly is intercepted, <u>SENASA shall immediately notify the</u> interception of live fruit fly to APQA by an official letter. And the export of mango from Peru to Korea shall be provisionally suspended until the two countries reach agreement after identifying the cause and establishing corrective measures.
- 8.4. In case other quarantine pests are intercepted, the relevant lot shall be rejected. Nevertheless, if the pests are completely destroyed or removed, the lot may be exported to Korea.
- 8.5. A consignment that passed export inspection shall be sealed by each pallet (in case of air cargo) or each container (in case of ship cargo) in order to verify the identity of the export consignment; and SENASA shall be responsible for verification and supervision.
- 8.6. SENASA shall issue a phytosanitary certificate including the following additional declaration on fresh fruits that are free from Korea's pests of concern (See Annex 1) and consignments that comply with requirements agreed by the two countries through export inspection before shipment and shall ensure and guarantee traceability and the identity of export consignment throughout the whole export process.

- 8.6.1. Registration number of export orchards, export packing houses and hot water treatment facilities
- 8.6.2. Security seal number of each pallet (in case of air cargo) or container (in case of ship cargo) issued by SENASA
- 8.6.3. Result of hot water treatment (treatment date, temperature, duration, etc.) in the treatment section of a phytosanitary certificate
- 8.6.4. Confirmation on the detailed information such as date of inspection, name of APQA inspector by APQA inspector dispatched to Peru (pre-clearance inspection only)
- 8.7. Each export packing carton or pallet of a consignment of fresh mango fruits that passed export inspection shall be sealed using the approved methods (including tape, sticker or label) by SENASA.
- 8.8. A consignment that passed export inspection shall be separated from rejected consignments or consignments for export to other countries for management; and the storage shall be sealed or be equipped with insect proof facilities to prevent pest re-contamination.

9. Import Inspection

- 9.1. Upon arrival of consignments, <u>APQA</u> inspectors shall check the following points. If the consignment has the following problems, all or parts of the consignment shall be destroyed or returned.
 - 9.1.1. A phytosanitary certificate and additional declaration and the identity of the consignment
 - 9.1.2. Label requirements including "registration number of export orchards, export packinghouses and hot water treatment facilities" and the marking "For Korea" on each packing carton
 - 9.1.3. Compliance of packing requirements
 - 9.1.4. Compliance of sealing requirements [each pallet (in case of air cargo) or container (in case of ship cargo)]

- 9.2. In case of a consignment may not be subjected to conduct pre-clearance inspection, APQA shall conduct an import inspection and a laboratory test on-arrival in Korea
 - 9.2.1. In case any live fruit fly is found during import inspection, the consignment shall be destroyed or returned, and the importation of mango fruit from Peru shall be suspended until the two countries reach an agreement after the cause is identified and remedial measures are implemented.
 - 9.2.2. In case other live quarantine pests are found during import inspection, the consignment shall be treated. If no treatment is available, the consignment shall be destroyed or returned.
 - 9.2.3. In case a new pest that has not been assessed is intercepted or in case Korea's concerned pests (Annex 1) is continuously intercepted, pest risk assessment shall be conducted and necessary measures will be determined through consultation between the two countries.

10. Pre-clearance inspection or on-site survey

- 10.1. APQA conduct on-site survey to import mango fresh fruits from Peru every year.
- 10.2. SENASA shall send <u>APQA</u> an official letter requesting for pre-clearance inspection <u>or on-site survey</u> by <u>APQA</u> inspectors including the following information, at least 30 days before commencement of exportation.
 - 10.2.1. The number of <u>APQA</u> inspectors and required inspection period (pre-clearance inspection only)
 - 10.2.2. Expected export period and region in Peru and an estimated volume of export
 - 10.2.3. The list of registered export orchards, export packinghouses and hot water treatment facilities, and their location (the administrative name of the region)

- 10.<u>3.</u> <u>APQA</u> inspector shall perform the following points during pre-clearance inspection or on-site survey in Peru.
 - 10.2.1. <u>APQA</u> inspector shall check pest management of export orchards and sanitary conditions in export packinghouses and hot water treatment facilities.
 - 10.2.2. <u>APQA</u> inspector shall, in conjunction with SENASA inspector, carry out export inspection and shall check the process of hot water treatment.
- 10.4. APQA plant quarantine inspector may request necessary records and information to SENASA and SENASA shall provide them.
- 10.5. APQA plant quarantine inspectors may request to SENASA correction or exclusion of an export orchard or a packing house or a hot water treatment facility which are non-complied with the requirements from the export to Korea.
- 10.6. All costs pertaining to the pre-clearance or on-site survey inspection by <u>APQA</u> inspector shall be paid by the Peruvian side in accordance with Korea's Standards for Overseas Travel Expenses of Public Officers. The Peruvian side shall provide all of conveniences such as arrangement of transportation and interpreter for the <u>APQA</u> inspector.
- 10.7. In case of occurrence of major non-compliance, APQA can resume pre-clearance inspection.

[Annex 1]

Korea's pests of concern associated with Peruvian fresh mango

Pathogen: 2 species

Ceratocystis paradoxa Nectria rigidiuscula

Pests: 17 species

Anastrepha distincta*

Anastrepha fraterculus*

Anastrepha obliqua*

Anastrepha serpentina*

Anastrepha striata*

Ceratitis capitata*

Aspidiotus nerii

Ischnaspis longirostris

Lepidosaphes beckii

Selenaspidus articulatus

Dysmicoccus brevipes

Ferrisia virgata

Pseudococcus longispinus

Coccus viridis

Asterolecanium pustulans

Frankliniella schultzei

Selenothrips rubrocinctus

* The 6 pests require specific risk mitigation measures.

(Annex 2)

Detailed guidelines on hot water treatment and conditions for treatment facilities for fresh mango from Peru

1. Hot water treatment facilities

- Hot water treatment facilities shall be registered with the National Plant Protection Organization of Peru (hereinafter referred to as "SENASA"); shall maintain clean and sanitary conditions; and shall be sealed or be equipped with insect proof facility to prevent entry of pests.
- Hot water treatment facilities shall be of the batch system where baskets of fruit are loaded onto a platform which is then lowered into the hot water tank.
- The hot water shall be the filtered clean water, and shall regularly undergo water quality control and be replaced. The water used for hot water treatment of fruits for domestic markets or for other export markets shall not be reused for mango for export to Korea.
- The water in the tank shall be circulated continuously in order to keep the temperature uniformly at 47°C all throughout the tank.

2. Temperature sensor

 \circ The accuracy of the temperature sensor shall be within ± 0.3 °C of the treatment temperature (47°C).

- The temperature sensor shall be calibrated every month and just before the treatment of fresh fruits of mango for export to Korea each year, based on 2 measurements of each temperature sensor recorded every 5 minutes using the standard thermometer. (A temperature sensor whose margin of error of the measurement exceeds ± 0.3 °C of the standard temperature cannot be used.)
- The thermometer approved by a certified testing authority shall be used as a standard thermometer. [The accuracy of the temperature sensor shall be within ±0.1°C of the treatment temperature (47°C).]
- The hot water shall allow the water to be circulated continuously in order to keep the temperature uniformly in the hot water tank. The temperature sensors shall be placed in the lower third above the bottom of the tank and this should be proven.

- Temperature sensors shall be installed in the flesh of more than 3 fruits per hot water tank in order to determine the temperature of fruit pulp.
- A temperature sensor to check the temperature of the tank and temperature of fruit pulp after the treatment shall be prepared.

3. Temperature recorder

- The temperature recorder must have the automatic temperature recording function (the strip chart or date logger) so that the temperature can be checked anytime from outside, and all temperature sensor measurements should be recorded, stored and printed continuously. It shall also indicate identification number of the recorder and hot water treatment facility.
- \circ The accuracy of the temperature recorder shall be within ± 0.3 °C, and the temperature recorder shall be able to record the temperature within at least every 2 minutes. It shall not be made possible to make changes to the measurements.

4. Cold spot test of hot water tank

- Cold spot test shall be carried out at the commencement of each export season and additional test shall be performed, if necessary.
- o Fruits shall be loaded into a hot water tank as much as the amount of commercial exportation
- The biggest and the heaviest fruits shall be selected for the test and at least one test fruit shall be placed in each compartment of hot water tank.
- The hardest fruits shall be selected for the test and they should be of the same range of heaviness.
- Temperature sensors shall be installed in each compartment on top, middle and bottom of the hot water tank.
- Hot water treatment test shall be implemented in the same manner as if performing the treatment for export to Korea.
- Among all locations, the spot where the temperature reaches 46°C the latest will be designated as the lowest spot.
- o Location of temperature sensors shall be determined in accordance with the result of the test.

5. Method of hot water treatment

- Only fruits which are selected through the first sorting in which misshapen or rotten fruits are discarded, shall undergo hot water treatment.
- The temperature of the fruit core shall be over 21°C before the hot water treatment. The fruit temperature shall be measured randomly and if the temperature reaches the expected temperature, the fruits shall be treated with hot water immersion.
- The fruit core temperature shall be maintained at over 46°C for more than 1 minute. (Nevertheless, it is acceptable even if the temperature of the hot water tank goes below 47°C right after the fruit immersion but the temperature shall again go up to 47°C within 5 minutes.)
- \circ The fruits must be immersed at least 10cm below the water surface.
- After the treatment, the fruits shall be kept at the air temperature without rapid cooling.

6. Prevention of re-contamination after the hot water treatment

• Fruits treated with hot water dipping shall be stored, packed and transported in a sealed facility or facility equipped with insect proof facilities.

7. Rejection standards for the hot water treatment

- In case the temperature of the hot water tank falls below 47°C right after the fruit immersion and in case the temperature fails to rise to 47°C within 5 minutes;
- In case the temperature of the fruit pulp can-not reach the standard temperature (at 46°C for more than 1 minute) during hot water treatment due to such reasons as blackout;
- In case the temperature of the fruit pulp is lower than 46°C, when the fruit pulp temperature is measured randomly, immediately after the treatment;
- In case it is found that there were problems with the installation of sensors and treatment process, i.e. the temperature sensor is not placed in the center of the fruit, etc., when checking through the cut fruits after the hot water treatment; and
- In case there are any factors that may influence the result of the treatment.