

Quarantine requirements for the importation of fresh apples from France to Taiwan

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

1. INTRODUCTION

The importation of fresh apples (*Malus* spp.) from France to Taiwan 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 this requirement.

2. DEFINITIONS

2.1 GAP: Good Agricultural Practices.

2.2 Supplying orchard: Production site on which apples are to be grown. It can have different varieties of apples.

2.3 Codling moth: Includes all stages of *Cydia pomonella*.

2.4 Lot: Set of units of apples to be exported to Taiwan.

2.5 Export season: From 01 August to 31 July next year.

2.6 Mediterranean fruit fly: Includes all stages of *Ceratitis capitata*.

3. REQUIREMENTS FOR SUPPLYING ORCHARDS

3.1 The supplying orchards must be certified in GAP. General Directorate for Food (DGAL) and plant quarantine authority of Taiwan (hereinafter referred to as APHIA) may check this certification.

3.2 The supplying orchards must accomplish one of the following measures to control codling moth:

3.2.1 Codling moth sex pheromone traps network. Traps must be installed in the fields of supplying orchards before apples reach their full bloom stage. For supplying orchard up to 8 hectares, one trap per hectare is required, whilst for supplying orchards exceeding that area, one additional trap will be placed every 2 hectares. To detect the presence of codling moth, the inspection frequency will be every three days. If it is detected that the population density of codling moths reaches 3 or more moths per trap per week, effective control measures shall be taken immediately. Pheromone lure must be renewed constantly. Complete records of monitoring and control must be kept for inspection.

- 3.2.2 Orchards with orientation disruption of codling moth: In these situations, one specific sex pheromone trap (high concentration of pheromone) is required for each orchard. The pheromone trap is used only to verify the proper functioning of the orientation disruption of codling moth.
- 3.2.3 If no sex pheromone trap is placed in the supplying orchards, effective and continuous control measures will be taken to prevent infestation, i.e. periodic sprays of pesticides specifically recommended for codling moth, at intervals according to the protection period of the insecticides applied. This activity will be supervised by DGAL. Complete records of monitoring and control must be kept for inspection.
- 3.3 Supplying orchards in compliance with the aforementioned requirements should be registered by DGAL. This register list will include the orchard code and name, along with the identification of the department and commune where the supplying orchard is located.

4. REQUIREMENTS FOR COLD STORAGE WAREHOUSES

- 4.1 Cold storage warehouses must be registered by DGAL.
- 4.2 Fresh apples stored in the cold storage warehouse should come from registered supplying orchards. If fresh fruits from non-approved orchards are stored in the same warehouse, complete separation from those fruits from supplying orchards is required.

5. REQUIREMENTS FOR PACKINGHOUSES

- 5.1 Packinghouses must be registered by DGAL.
- 5.2 Packinghouses shall be equipped with insect-proof equipments. Windows or air holes must be covered with screen of no more than 1.6 mm fine meshes. Entrances or doors shall be equipped with air curtains, rubber curtains, or other insect-proof equipment.
- 5.3 Packinghouses must be equipped with sorting apparatus and sufficient lights for performing inspections.
- 5.4 Packinghouses shall have qualified personnel to assist in quarantine inspection.
- 5.5 Packinghouses shall provide adequate apparatuses and equipments to facilitate inspectors to perform inspections, pest identification and other related work.
- 5.6 Before the packing season, appropriate pest control measures shall be taken to disinfest live plant pests inside the packinghouse. If necessary, sterilization shall be undertaken to ensure cleanliness in the packinghouse.
- 5.7 During period where apple are processed in order to be exported to Taiwan, fresh apples processed in packinghouses shall come from supplying orchards and cold storage warehouses approved for export to Taiwan.

- 5.8 About packing materials, if apple boxes have air holes, they shall be either covered with screen of no more than 1.6 mm fine meshes, or transported by closed vehicle to prevent incursion of pests.
- 5.9 DGAL shall provide the list of packinghouses and their registered codes to APHIA.
- 5.10 Before the packing season, packinghouses shall be checked by DGAL inspectors to ensure that all requirements are met. APHIA may send inspector(s) to jointly perform the activity.

6. PRE-INSPECTION PROCEDURES

- 6.1 Fresh apples shall be sorted at least twice before packing by packinghouse staffs who have plant pest training to remove all the deformed or damaged apples. This activity will be conducted according to the following scheme:

- 6.1.1 First sampling - before packing process

- 6.1.1.1 Before the packing process of the lot that comes from supplying orchards approved for export to Taiwan, 600 apple samples will be taken for inspection. At least 50 apples will be cut for inspection.
 - 6.1.1.2 Apple selection will focus on damaged fruit, likely to be caused by codling moth. If damaged apples are not present, the sample will be taken randomly.
 - 6.1.1.3 This activity will be conducted by the packinghouse staff and supervised by DGAL.
 - 6.1.1.4 If two or more apples with codling moth damage or two or more dead codling moths are detected, the lot will be rejected for export to Taiwan.
 - 6.1.1.5 If any live codling moth is detected during this pre-inspection, the lot will be rejected and the apple sourcing orchard will be withdrawn for export to Taiwan during the remainder of the export season.
 - 6.1.1.6 Appropriate record keeping will be taken.

- 6.1.2 Second sampling - at packing line

- 6.1.2.1 In the packing line, apple will be taken for inspection every one hour.
 - 6.1.2.2 Apple selection will focus on damaged fruits, likely to be caused by codling moth. These apples will be cut, looking for larvae.
 - 6.1.2.3 During the process, at least 100 culled apples will be taken for sampling.
 - 6.1.2.4 This activity shall be conducted by the packinghouse staff and supervised by DGAL.

- 6.1.2.5 If two or more apples with codling moth damage or two or more dead codling moths are detected, the lot will be rejected for export to Taiwan.
- 6.1.2.6 If any live codling moth is detected during this pre-inspection, the lot will be rejected and the supplying orchard will be withdrawn for export to Taiwan during the remainder of the export season.
- 6.1.2.7 Appropriate record keeping will be taken.
- 6.2 Culled apples shall be placed in containers and discarded or destroyed every day. All the security measures implemented in the packing process will be supervised by DGAL.
- 6.3 Measures shall be taken to prevent re-infestation of pests when packed apples are shipped from packinghouses to vessels or containers.

7. EXPORT INSPECTION PROCEDURE

- 7.1 Packed apples must be inspected by DGAL.
- 7.2 The sampling level done according to the following scheme:
 - 7.2.1 At least 2% of boxes.
 - 7.2.2 All apples of every sampled box will be inspected.
 - 7.2.3 For each sampling box, two apples will be taken and cut, looking for larvae.
 - 7.2.4 If apple fruits are un-packed, at least 600 fruits of the exported lot shall be inspected, and 30 fruits shall be taken and cut.
- 7.3 If two or more apples with codling moth damage or two or more dead codling moths are detected, the lot will be rejected for export to Taiwan.
- 7.4 If any living codling moth or other quarantine pests are found during inspection, the lot will be rejected for export to Taiwan and the sourcing orchard will be withdrawn for export to Taiwan during the remainder of the export season.
- 7.5 If any living codling moth is found during inspection, the packinghouse shall be temporally suspended from exporting apples to Taiwan until DGAL clarifies the cause of the situation, and the relevant report should be provided to APHIA.

8. IN-TRANSIT COLD TREATMENT DURING SEA TRANSPORTATION FOR THE MEDITERRANEAN FRUIT FLY:

- 8.1 After the inspector of DGAL conducts the export inspection, all the packed apples from France to Taiwan should be treated with in-transit cold treatment during sea transportation.
- 8.2 Pre-cooling Treatment

- 8.2.1 Fresh apples to be treated with in-transit cold treatment during sea transportation must undergo pre-cooling treatment. The pre-cooling temperature shall not be higher than the designated temperature for cold treatment (for relevant schedules, please see Annex).
- 8.2.2 DGAL shall provide a pre-cooling certificate, which shall specify the pre-cooling temperature. Alternatively, the pre-cooling temperature before cold treatment shall be stated on the phytosanitary certificate.
- 8.3 Guidelines for Conducting Cold treatment
 - 8.3.1 For refrigerated containers used for in-transit cold treatment, temperature loggers should be calibrated by authorized agencies under the supervision of DGAL.
 - 8.3.2 The temperature probes used to measure apple pulp temperature in refrigerated containers must be inserted and secured in the apple pulp.
 - 8.3.3 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, 50 cm to 100 cm 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.
 - 8.3.4 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, 50 cm to 100 cm 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.
 - 8.3.5 If temperature is not recorded in a continuous way, then the temperature in the containers shall be recorded at least once every hour.
 - 8.3.6 Cold treatment is calculated from when the core temperature of the apple has reached the regulated temperature. Cold treatment may be commenced on-shore (prior to sea vessel departure) but shall not be completed on-shore in France.
- 8.4 Apples which are treated with cold temperature shall not be mixed with other fruits, vegetables or articles in the same container during transportation.
- 8.5 Refrigerated containers must be sealed with a container seal before the commencement of cold treatment.

9. EXPORT CERTIFICATION ACTIVITIES

- 9.1 The names or code numbers of the packinghouse must be marked on the packing materials.

- 9.2 Apples approved and exported to Taiwan will be accompanied by a phytosanitary certificate issued by DGAL.
- 9.3 The phytosanitary certificate will contain the following additional declaration: Apple has been inspected and found free from Mediterranean Fruit Fly (*Ceratitis capitata*), Codling Moth (*Cydia pomonella*), Western Flower Thrips (*Frankliniella occidentalis*), Fire Blight (*Erwinia amylovora*) and Peach Twig Borer (*Anarsia lineatella*).
- 9.4 If the requirements established by APHIA change, this additional declaration could be amended accordingly with the new requirements.
- 9.5 The phytosanitary certificate should also contain the information of supplying orchard (name or code), packinghouse (name or code), inspection date, the refrigerated container numbers and container seal numbers. In addition, the pre-cooling temperature should be declared on the phytosanitary certificate if there is no pre-cooling certificate.
- 9.6 Apples consignments should be exported within 14 days after issue of the phytosanitary certificate by DGAL. If not, an additional inspection should be implemented and a new phytosanitary certificate must be issued.

10. IMPORT INSPECTION

- 10.1 During shipping and upon arrival, the lock of the ship's compartment or seal of the container shall not be unlocked or broken before the APHIA quarantine inspectors are on site.
- 10.2 APHIA will verify that the phytosanitary certificate issued by DGAL is in compliance with the aforementioned quarantine requirements.
- 10.3 Procedures, methods, and sampling for import inspection shall follow the "Enforcement Rules on The Plant Protection and Quarantine Act" and other quarantine regulations.
- 10.4 The temperature of the refrigerated container shall be inspected and verified in accordance with the following stipulations:
 - 10.4.1 The temperature records of apple pulp temperatures in refrigerated containers must be read on site during the inspection or verified from downloaded data. If it is not possible to read the temperature records, the information of temperature records must be downloaded onto a suitable recording medium on site for reading at a later time or the actual temperature recorders taken away for downloading. The temperature record sheets and inspection and quarantine record sheets are still required to be printed out at a later time for filing purposes.
 - 10.4.2 If the duration of continuous cold treatment of the imported fresh apple fails to meet the requirement for duration upon arrival in Taiwan, the

treatment must be continued after arrival at the port. Application for on-site inspection and quarantine shall not be submitted until the designated requirements for treatment are met. However, if the refrigerated containers have already been opened and have failed to meet the temperature requirements during APHIA inspection, the consignment shall not continue to be disinfested or treated with low temperature.

10.4.3 The temperature record of the readings of various temperature recorders in the refrigerated containers must meet the treatment temperature requirements. If any temperature loggers fail to comply with the requirements, the particular consignment would be deemed as failing to meet the inspection and quarantine assessment.

10.4.4 If two or more temperature loggers malfunction or cannot measure temperatures due to detached probes, that consignment would be deemed as non-compliant to the temperature standards and failing to meet the import quarantine inspection.

10.5 If the consignment is not accompanied with the phytosanitary certificate or the pre-cooling certificate issued by DGAL, or the contents listed on the phytosanitary certificate does not meet these quarantine requirements and other related regulations, the correct certificate must be re-submitted, or the consignment shall be returned or destroyed.

10.6 If any living Mediterranean fruit fly is found during inspection, the following measures will be applied:

10.6.1 The consignment will be rejected or destroyed.

10.6.2 APHIA will notify DGAL, provide the copy of phytosanitary certificate, the picture of the Mediterranean fruit fly and the information of the packing box. DGAL will temporarily suspend the export of fresh apples from France.

10.6.3 The export of fresh apples according to the cold treatment schedule shall not resume until DGAL has investigated and determined the cause for the presence of living Mediterranean fruit fly, has adopted effective remedial measures, and has obtained approval from APHIA.

10.7 If any living codling moth is found during inspection, the following measures will be applied:

10.7.1 The consignment will be rejected or destroyed.

10.7.2 APHIA will notify DGAL, and provide the copy of phytosanitary certificate, the picture of codling moth and the information of the packing box.

10.7.3 The sourcing orchard and the packinghouse will be withdrawn for export to Taiwan for the remainder of the export season. Any shipment from the sourcing packinghouse will remain eligible for export to Taiwan if the following conditions are met:

10.7.3.1 Inspection date prior to suspension date.

10.7.3.2 The consignment was loaded on board traveling to Taiwan within 3 days from the notification date.

10.7.4 Additionally, the sampling level at packinghouse will be increased as follows:

10.7.4.1 First sampling - before packing process: 800 apples will be selected for inspection.

10.7.4.2 At least 100 apples will be cut for inspection in the first sampling – before packing process.

10.8 If a second detection occurs, the following measures will be applied:

10.8.1 The consignment will be rejected or destroyed.

10.8.2 APHIA will notify DGAL, and provide the copy of phytosanitary certificate, the picture of codling moth and the information of the packing box.

10.8.3 In addition to provisions 10.7.3 and 10.7.4, the sampling level at DGAL inspection will be increased as follows:

10.8.3.1 Inspection level will be 3% during the export season.

10.8.3.2 4 apples from each sampled box will be cut for inspection.

10.9 If a third detection occurs, emergency actions will be applied according article 11.

10.10 If any other plant pest of quarantine significance occurs in France, and it poses risks to the production safety of Taiwan's agricultural, the importation could be suspended by APHIA at any time.

11. EMERGENCY ACTIONS

11.1 If any live codling moth is detected a third time by APHIA in the export season on the import inspection, APHIA will notify DGAL to suspend the apples export program to Taiwan.

11.2 Once DGAL received APHIA's notification, DGAL will suspend any further export process to Taiwan. Any shipment from non-sourcing packinghouses will remain eligible for export to Taiwan, but be subject to a more stringent inspection by APHIA, if the following conditions are met:

11.2.1 Inspection date prior to suspension date.

11.2.2 The consignment is loaded on board traveling to Taiwan within 14 days from the inspection date.

- 11.3 DGAL will conduct an investigation about the detection and make a report about the situation. Also DGAL can propose improvement to the requirements. Once the report is finished, DGAL will send it to APHIA.
- 11.4 After DGAL sends the report to Taiwan, APHIA will review the measures established for the export of apples and send inspector(s) to conduct an on-site verification of the apple export process. The cost associated with this activity will be borne by France.
- 11.5 The suspension will be lifted after APHIA reviews and approves DGAL report and the on-site verification of any necessary actions taken to correct non-compliance.

12. SPECIAL REQUIREMENTS

- 12.1 Two months prior to each apple export season, DGAL will formally invite APHIA to send quarantine inspector(s) to perform the on-site inspection jointly with inspectors of France. Along with the formal letter of invitation, DGAL shall provide the list of registered packinghouses.
- 12.2 APHIA may dispatch quarantine inspector to participate in the inspection, or DGAL may undertake the inspection on behalf of APHIA based on agreed criteria as below:
 - 12.2.1 There are no un-audited cold storage warehouses or packinghouses.
 - 12.2.2 There are no detection records of living codling moth, Mediterranean fruit fly or other quarantine pests at export and import inspection in the previous season.
 - 12.2.3 On-site inspection was conducted by APHIA in the last year.
- 12.3 All the necessary expenses for the quarantine inspector of APHIA shall be borne by France.
- 12.4 APHIA and DGAL could discuss for any improvement of the requirements, especially on the APHIA inspection frequency based on satisfactory results of previous inspections.

Annex: Benchmarks of cold treatment for Mediterranean fruit fly

°F	°C	Minimum period (days)
32 or below	0 or below	12
35 or below	1.67 or below	14
38 or below	3.33 or below	18