

Import Requirements for Fresh Citrus (Orange, Lemon, Grapefruit) from South Africa

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1. Plants and production areas subject to the requirements

Fresh sweet orange (Navel and Valencia varieties), lemon and grapefruit should be produced in South Africa, in areas which are designated as the exporting production areas by National Plant Protection Organization of South Africa (NPPOZA) (hereinafter referred to as Department of Agriculture, Forestry and Fisheries (DAFF)) and where strict pest control are undertaken.

2. Means of conveyance

Ship-cargo or air-cargo

3. Registration of export production units and packing houses

3.1 Production units that produce fresh sweet orange, lemon and grapefruit for export to Korea (hereinafter referred to as "production units" and packing houses for export to Korea hereinafter referred to as "export packing houses") must be registered, inspected, approved and managed by the DAFF.

3.2 The DAFF shall provide a list of registered export production units and packing houses to the Animal, Plant and Fisheries Quarantine and Inspection Agency of Korea (hereinafter referred to as QIA), before commencement of export each year.

4. Field inspection

4.1 The DAFF should ensure that effective control measures shall be implemented in export production units to prevent incursion of Korea's quarantine pests listed in Annex 1, and DAFF shall conduct field inspection of each export production unit during the growing season. The DAFF shall also provide results of field inspection and a list of registered export production units and packing houses to a Korean plant quarantine inspector who was invited to conduct pre-clearance inspection.

- 4.2. After reviewing on the results of field inspection, a Korean plant quarantine inspector may, if necessary, check the following in the growing fields.
 - 4.2.1 Conformity of the results of field inspection and the actual fields.
 - 4.2.2 The occurrence status of Korea's quarantine pests of concern which may be introduced to Korea.
- 4.3 Based on the result of field inspection by the DAFF, or results of inspection by a Korean plant quarantine inspector, export of fruits produced from production units which are believed to have high risk of incursion of Korea's quarantine pests, may be restricted to export to Korea.

5. Sorting

- 5.1. DAFF should check sanitary conditions of packing houses every year, and packing houses and storages shall be disinfected regularly every year and be equipped with insect proof facilities to prevent entry of pests from outside.
- 5.2 The fresh fruits of citrus for export to Korea shall be sorted and packed only in packing houses registered with the DAFF and they shall not be sorted and packed together with citrus fruits produced from unregistered production units and other fresh fruits.
- 5.3 The infested or damaged fruits shall be removed before cold treatment and any other contaminants such as leaf, stem and soil should not be attached.
- 5.4 The Korean plant quarantine inspectors may attend and confirm the implementation of the above-mentioned process.

6. Packing and labeling

- 6.1 DAFF shall mark the names or registration numbers of export production units (PUC) and packing houses (PHC) and "For Korea" outside the export packing cartons or pallet of palletized consignment to ensure traceability.
- 6.2 DAFF shall make sure to prevent pest recontamination during the storage and transportation of export consignment after packing.
- 6.3 Export consignment for Korea which was cold treated in land shall be packed with insect (FCM and fruit fly) proof materials. In case the fruits are packed with cartons that have ventilation holes, the cartons shall

conform to the following requirements and each packing and pallet shall be sealed by DAFF plant quarantine inspectors.

6.3.1 Only cartons whose ventilation holes are covered with net screen (with mesh size less than 1.6x1.6 mm in diameter) shall be used.

6.3.2 The whole packing or pallets shall be wrapped with nets (with mesh size less than 1.6 x 1.6 mm in diameter).

7. Cold treatment facilities and methods

7.1 Cold treatment shall be conducted in a cold treatment facility approved by DAFF or Perishable Products Export Control Board (PPECB) which is authorized by DAFF to render the cold treatment services. The cold treatment shall be applied continuously for 24 days after the fruit core temperature reaches $-0.6 \pm 0.6^{\circ}\text{C}$ below according to the Detailed Guidelines for Cold Treatment in Annex 2.

7.2 The Korean and South African inspectors may attend and confirm the whole process and result of cold treatment.

8. Conveyance and storage of fresh fruits

8.1 When storing fresh fruits that were cold treated, the fruits shall be stored in a storage designated by DAFF, and the storages shall be disinfected regularly and equipped with insect proof facilities to prevent entry of pests from outside.

8.2 When transporting the fresh fruits that were cold treated from the cold treatment facilities or storages to another place, the fruits shall be placed in a closed conveyance medium (in case there are ventilation holes, it must be covered with net screen with mesh size less than 1.6mm in diameter) and transported in order to prevent re-infection of pests.

9. Packing houses, cold treatment facilities and storages

DAFF shall inspect at least once every year export packing houses, cold treatment facilities, and storage places to check whether they conform to the requirements. The Korean and South African inspectors may conduct joint inspection, if necessary.

10. Export Inspection and Certification

The Korean and South African inspectors shall conduct a joint inspection

on fresh fruits according to the following procedure. In order to distinguish the consignment that passed inspection from other consignments that were not inspected, each pallet or packing cartons shall be labeled by method approved by DAFF.

10.1 Fruits that were cold treated in land

10.1.1 The whole volume of fruits treated at a time in each cold treatment facility shall compose a lot, and over 2% of the total packed cartons shall be inspected by the Korean and South African plant quarantine inspectors, particularly to check the presence of Korea's quarantine pests in Annex 1

10.1.1.1 In case a consignment is composed of fresh fruits from more than 1 (one) export production units, samples shall be collected equally from each export production unit for inspection.

10.1.1.2 In case of inspecting fruits from the same export production unit whose consignment was rejected as a result of inspection, the amount of sample collection for inspection may increase.

10.1.2 In case any live quarantine pests are found during the inspection, the Korean and South African plant quarantine inspectors shall take the following measures:

10.1.2.1 In case any live prohibited pests such as FCM or fruit fly in Annex 1 are found, the consignment that was cold treated shall be rejected and the export of fresh fruits of citrus from South Africa to Korea shall be provisionally suspended until the cause is identified and appropriate measures are taken by DAFF.

10.1.2.2. In case quarantine pests other than prohibited pests like fruit flies or FCM are found, each relevant export production unit shall be rejected (if it can be distinguished), or the consignment may pass the inspection if the pests are destroyed or removed.

10.1.3 The consignment that passed inspection, shall accompany phytosanitary certificates issued by DAFF, and the phytosanitary certificates shall include the following information in the additional declaration:

10.1.3.1 Registration number of export production units and packing houses, number of containers and sealing

10.1.3.2 Application of cold treatment: "This consignment has been cold treated at $-0.6\pm 0.6^{\circ}\text{C}$ or below for 24 days."

10.1.3.3 The following information checked by the Korean plant quarantine

inspector (to be described in additional declaration or at the back of PC).

Date of Cold Treatment	
Date of Inspection	
Name of Inspector	
Result of Inspection	

10.1.4 The Korean and South African plant quarantine inspectors shall seal the container after loading the consignment. Nevertheless, in case of air cargo, packing cartons or pallets shall be covered with net (with mesh size less than 1.6mm in diameter) or plastic film and sealed by methods approved by DAFF (such as a sticker or label).

10.2 Cold-treated fruits in transit

10.2.1 The Korean and South African plant quarantine inspectors shall inspect more than 2% of all packing cartons before cold treatment (pre-cooling) and check the presence of any quarantine pests, particularly, Korea's quarantine pests in Annex 1.

10.2.1.1 In case of a consignment composed of fresh fruits from more than 1 (one) export production units, samples shall be collected equally from each export production unit.

10.2.1.2 In case of inspecting consignment whose fruits were produced from the same production unit whose consignment was rejected, the amount of sample may increase.

10.2.2 In case any live quarantine pests aside from fruit flies, FCM and red scales are found as a result of inspection, consignments of each export production unit (if it can be distinguished) shall be rejected, or it can be shipped after relevant pests are destroyed or removed.

10.2.3 The consignment of fresh fruits that passed the inspection shall accompany a phytosanitary certificate issued by DAFF, and the following information shall be included in the additional declaration:-

10.2.3.1 Registration number of export production units and packing houses, and number of container (or the number of cold treatment facility in a vessel) and sealing

10.2.3.2 Cold treatment to be applied: "This consignment will be cold treated at $-0.6 \pm 0.6^{\circ}\text{C}$ or below for 24 days".

10.2.3.2 The following information checked by a Korean plant quarantine inspector (to be described in additional declaration or at the back of PC).

Date of Inspection	
Name of Inspector	
Result of Inspection	

10.2.4 The Korean and South African plant quarantine inspectors shall confirm the accuracy of all temperature sensors in the cold treatment facility and the fact that the fruit core temperatures of fruits loaded onto cold treatment facility in a ship or container have reached $0.6\pm 0.6^{\circ}\text{C}$ or below, and shall seal the hatch or container.

11. Import inspection

11.1 When consignments arrive at the port of entry, Korean plant quarantine inspectors shall confirm the following and in case there are any non-compliance, all or parts of the consignment shall be destroyed or returned.

11.1.1 The phytosanitary certificate and additional declaration;

11.1.2 Sealing of the consignment (packing cartons, hatch or container);

11.1.3 Labeling on packing cartons or pallets; and

11.1.4 The status of cold treatment.

11.2 In case there are no non-compliances found through the checking, import inspection shall be carried out in accordance with Korea's Plant Protection Act, and if any quarantine pests are found during the import inspection, the consignments shall be treated as follows;

11.2.1 If any live prohibited pests such as fruit flies or FCM in Annex 1 are intercepted, the consignments shall be rejected and the import inspection of fresh fruits of citrus from South Africa shall be suspended until a cause is identified and remedial actions are implemented by DAFF.

11.2.2 If quarantine pests aside from prohibited pests are intercepted, the infested consignments shall be treated, destroyed or reshipped.

11.2.3 If quarantine pests in Annex 1 are continuously intercepted or a new pest is detected, new remedial actions will be taken based on pest risk analysis and consultation between the two countries.

12. Pre-clearance Inspection

12.1 DAFF shall request QIA for pre-clearance inspection by a Korean plant quarantine inspector, in writing, 30 days before commencement of cold treatment and the following information shall be included in the letter:

12.1.1 Pre-clearance inspection period;

12.1.2 Estimated export volume;

12.1.3 Cold treatment facility's location;

12.2 All expenses pertaining to pre-clearance program of a Korean plant quarantine inspection shall be borne by the Republic of South African side.

13. Others

QIA may establish necessary provisions in relation to implementation of this requirement.

[ANNEX 1]

The Quarantine Pests Associated with South African Citrus

1. Pests (47 species)

1.1. Prohibited pests (4 species)

Ceratitis capitata, *Ceratitis quinaria*, *Ceratitis rosa*, *Cryptophlebia leucotreta*

1.2. Regulated pests (43 species)

Brevipalpus phoenicis, *Calacarus citrifolii*, *Eriophyes sheldoni*,
Euteranychus africanus, *E. annecki*, *Phyllocoptruta oleivora*, *Helix aspersa*,
Aleurocanthus woglumi, *Anoplocnemis curvipes*, *Aonidiella aurantii*, *Apate*
indistincta, *A. terebrans*, *Archips occidentalis*, *Ascotis selenaria*
reciprocaria, *Aspidiotus nerii*, *Ceroplastes destructor*, *Chrysomphalus*
pinulifer, *Coccus viridis*, *Cribrolecanium andersoni*, *Empoasca citrura*,
Ferrisia virgata, *Gascardia brevicauda*, *Icerya seychellarum*, *Iridomyrmex*
humilis, *Insulaspis longirostri*, *Lepidosaphes beckii*, *Leptoglossus*
membranaceus, *Nipaecoccus filamentosus*, *Pantatomorus cervinus*,
Paracoccus burnerae, *Parlatoria ziziphi*, *Penthimiola bella*, *Pheidole*
megacephala, *Pseudococcus longispinus*, *Prays citri*, *Protopulvinaria*
pyriformis, *Pulvinaria aetriopica*, *Saissetia oleae*, *S. somereni*, *Scirtothrips*
aurantii, *Sciobius granosus*, *Spectrobates ceratoniae*, *Tortrix capensana*.

2. Pathogens (7 species)

Capnodium citri, *Fusarium semitectum* var. *majus*, *F. stilboides*, *Penicillium*
ulaiense, *Phytophthora citricola*, *P. syringae*, *Stomiopeltis citri*.

※ In case a pest which is not included in the above list is intercepted during import inspection, QIA will conduct the identification and PRA and determine necessary actions.

[ANNEX 2]

Detailed Guidelines on Cold Treatment of Fresh Fruits of Citrus from South Africa

1. Cold treatment

Cold treatment containers or chambers for in-land and in-transit cold treatment shall be self refrigerated (integral) and be capable of achieving and maintaining the required temperature. ($-0.6 \pm 0.6^{\circ}\text{C}$).

2. Temperature sensor and recorder

2.1 The accuracy of all sensors shall be $\pm 0.1^{\circ}\text{C}$ around 0°C .

2.2 The temperature recorder shall have automatic temperature recording function to facilitate frequent checking of the temperature from outside. The temperature recorder shall be capable of constantly recording, saving and printing the measurements when calibrating or actual application of cold treatment, and shall show identification number of the recorder as well as cold treatment facility.

2.3 The recorder shall be capable of recording temperatures of each temperature sensor at one hour interval and shall not allow change of measured values at one's own will.

3. Calibration of temperature sensors

3.1 The clean ice, fresh water and insulated container shall be used.

3.2 It shall be checked if each temperature sensor can be read by the recorder and if it is connected properly.

3.3 The container shall be filled at full with ice that are crushed or chipped. The water shall be poured sufficiently into the container and stirred for 2 minutes. In general, the ice shall occupy approximately 85% of the total volume of the container and the rest shall be filled with the water.

3.4 If the ice melts, the ice shall be filled additionally. The ice water slurry shall be stirred well to maintain the temperature at 0°C .

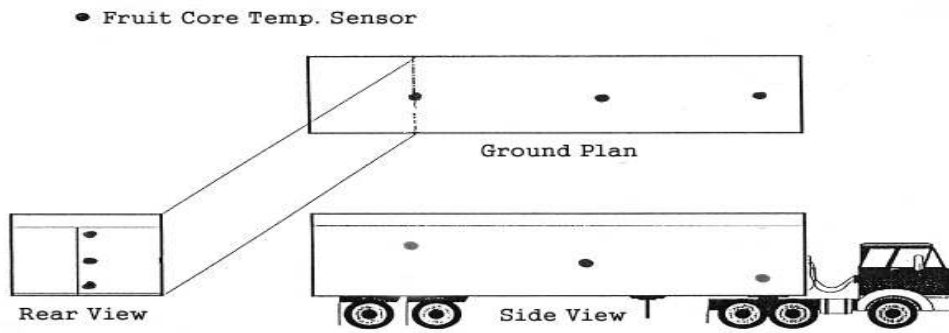
3.5 After the measurements of each temperature sensor have been stabilized, calibration must be conducted based on 3 consecutive measured values at 1~5 minute intervals.

3.6 The temperature sensor shall not touch the bottom or wall of the container of the ice water.

- 3.7 Any sensor which has over $\pm 0.3^{\circ}\text{C}$ range of error of the measured value shall be replaced by the one that meets the criteria.
- 3.8 Calibration of a temperature sensor shall be done immediately before each cold treatment by each facility.

4. Placement of temperature sensors

- 4.1 Packed fresh fruits must be loaded into a cold treatment container or chamber under supervision and control by DAFF inspector or PPECB inspector authorized by the South African NPPO, to ensure even flow of air.
- 4.2 In order to ensure that fruit core temperature of all fresh fruits reach the required temperature ($-0.6\pm 0.6^{\circ}\text{C}$) or below for the cold treatment, fruits shall be pre-cooled without fail and loaded into the cold treatment facility for cold treatment.
- 4.3 DAFF plant quarantine inspectors or PPECB inspectors authorized by the South African NPPO shall measure the fruit temperature at random and confirm the pre-cooling. In case the fruit temperature goes above the temperature ($-0.6\pm 0.6^{\circ}\text{C}$) required for the cold treatment, the relevant pallet shall continue its pre-cooling.
- 4.4 All temperature sensors must be installed under supervision and control of DAFF plant quarantine inspectors or PPECB inspectors authorized by DAFF.
- 4.4.1 In case of conducting cold treatment in chambers inland and or in transit, temperature sensors shall be placed at 4 different locations at least for fruit core and 2 different locations at least for air temperature in each chamber.
- At least 1 temperature sensor to measure fruit core temperature shall be placed in each of the center and top of the loaded fruits; and at each of in-let and outlet of cooling fan in the chamber.
- 4.4.2 In case of conducting cold treatment in containers in land and or in transit, the temperature sensors shall be placed at 3 locations at least to measure fruit core temperature and at 2 locations at least to measure air temperature of each container (See Figure below)
- One or more sensors to measure fruit core temperature at the upper middle part of the 1st pallet (nearest door), at the middle part of the center pallet and at lower middle part of the last pallet (nearest cooling unit);
 - At the in-let and outlet of cooling or air fan of each container.



4.4.3 To ensure recording of fruit core temperatures, sensors shall be inserted (if necessary, serially connecting a few fruits together) into a large fruit if the fruit size is not uniform.

5. Cold treatment and its result

- 5.1 DAFF plant quarantine inspectors or PPECB inspectors authorized by DAFF shall begin cold treatment after all the preparation for cold treatment is in place and sealing the cold treatment facility, and in case of applying cold treatment in transit, the container sealing shall be maintained until QIA plant quarantine inspector confirms this upon arrival.
- 5.2 The start date of cold treatment shall be valid from the time when the fruit core temperature reaches the required temperature for cold treatment ($-0.6 \pm 0.6^{\circ}\text{C}$) and this shall be maintained for at least 24 days. In case the temperature is not maintained and exceeds the temperature of permissible range during the treatment period, the cold treatment shall re-commence from the time when the fruit core temperature reaches the required temperature for cold treatment.