



## BILATERAL PLANT QUARANTINE ARRANGEMENT

Between

CENTRAL ADMINISTRATION OF EGYPTIAN  
PLANT QUARANTINE (CAEPQ)

and

KENYA PLANT HEALTH INSPECTORATE  
SERVICE  
(KEPHIS)

Regarding conditions for

Importation of fresh citrus fruits from Egypt into Kenya

## **1. Introduction**

### **1.1 Purpose**

This arrangement on plant quarantine procedures is between the Central Administration of Egyptian Plant Quarantine (CAEPQ) of Egypt and Kenya Plant Health Inspectorate Services (KEPHIS) of the Ministry of Agriculture (Kenya) to enable continued export of fresh citrus fruits to Kenya, with minimal phytosanitary risk. It is understood that the national plant protection organisation of Egypt (CAEPQ) will be responsible for assuring that the requirements detailed herein are fully implemented prior to export.

### **1.2 Scope**

The arrangement sets out mutually agreed phytosanitary measures to be applied to all commercial and non-commercial imports of fresh citrus fruits from Egypt. A similar arrangement is understood to exist between Egypt and other trading partners and will therefore not call for additional resources.

In this arrangement, the Central Administration of Egyptian Plant Quarantine (CAEPQ) of Egypt and individual exporters are responsible for each step of the phytosanitary measure applied to Egyptian citrus to be exported to Kenya.

All imports must be sanctioned by a Plant Import Permit (PIP) issued by KEPHIS for each consignment. The PIP spells out conditions that imported citrus fruits shall meet.

### **1.3 Background**

For a long time, importation of fresh citrus fruits from Egypt has been going on without restrictions. However, it was noted that there exists a phytosanitary risk portended by presence of certain fruit fly species (in Egypt) that are not yet recorded in Kenya. After analysing preliminary information KEPHIS concluded that importation of the said fruits would continue provided that Egypt undertakes to meet certain requirements described in this agreement.

## **2. Fruit species**

The following citrus varieties would be permitted from Egypt

- Seeded Baladi orange (*Citrus sinensis*)
- Seedless baladi (*Citrus sinensis*)
- Washington Navel (*Citrus sinensis*)
- Abusurm orange (*Citrus sinensis*)
- Valencia orange (*Citrus sinensis*)
- Egyptian lime (*Citrus aurantifolia*)
- Sweet lime (*Citrus latifolia*)

## **3. Orchard control programmes**

- 3.1 CAEPQ will ensure that citrus fruits are sourced from commercial orchards that are registered for export to Kenya

- 3.2 Growers will undertake orchard pest control programmes to ensure that quarantine pests for Kenya are adequately managed
- 3.3 CAEPQ must provide information on the management programmes undertaken for citrus throughout the growing season
- 3.4 General survey programmes for quarantine pests to be conducted regularly, which may consist of surveying orchards, sampling, and measurement of percentage infestation/infection. In instances where chemicals are applied and that the maximum residue limits (MRLs) for such chemicals are significantly higher than the MRLs approved by the Kenya Plant Health Inspectorate Service (KEPHIS), growers will be required to ensure that adequate records of spray programmes are kept and that these are made available to KEPHIS Inspectors upon request.
- 3.5 In common with all other imported food commodities, citrus fruits will be subjected to the import inspection program operated by various agencies of the government of Kenya. Subject to risk categorisation by KEPHIS, random samples of imported fruit may be taken for any form of test including residue analysis, with appropriate action being taken if nonconformity is evident.

#### 4. Quarantine Pests

- 4.1 Notification of quarantine pest status. It is a condition of entry that CAEPQ immediately advise KEPHIS of any outbreak or change of status of the following pests in the citrus production fields of Egypt:

- (a) All economically significant species of Tephritid fruit flies and
- (b) Economically significant pathogens such as *Xanthomonus campestris* pv *citri* (pathogen of citrus bacterial canker) and *Phoma tracheiphila* pathogen of Mal sacco disease)

- 4.2 Mediterranean fruit fly Control

Citrus orchards in Egypt are normally planted as separate stands in mixed orchards with other horticultural crops that serve as alternate hosts for pests known to attack citrus trees, particularly Mediterranean fruit fly. The management strategies detailed below are intended to reduce infestation levels of Mediterranean fruit fly. CAEPQ will coordinate the monitoring of the orchard-trapping program, which can involve other government organisations.

- 4.2.1 A network of Jackson traps (pheromone and food attractants e.g. Trimedlure, Burninal) are to be distributed in the different fields to monitor the distribution of the pests throughout the year. These traps are to be hung on all Mediterranean fruit fly hosts in all fields all year round. Traps should be baited weekly with the sex attractants 'Trimedlure', inspected and male catches counted. The sticky inserts should be replaced regularly and the average of the catch per trap per day 'CTD' calculated.



- 5.1.3 CAEPQ will coordinate the receipt of the fruits at the gate of the packing shed and check documentation, which includes: license transportation, production area, fields and location, producer name, variety and date.

## **6. Washing/post harvest treatment**

- 6.1 To control *Alternaria alternata*, fruits must be washed in warm water for 4-5 minutes using 1.25 % sodium carbonate solution or 0.1% copper sulphate or 2% potassium permanganate or SOPP. Alternatively, TBZ (Thiabendazole) or water –wax containing 22% of 2250 ppm TBZ +2500 ppm Imazalil +2500 ppm Guazatin can be used.
- 6.2 Post harvest treatment routinely used by packaging sheds must continue to reduce the incidence of quarantine pests on fruits. These may include 8% borax solution at 48°C for 5 minutes or a mixture of 42% Borax and 2% Boric acid in warm water
- 6.3 Washed, treated and waxed fruit must be sorted , graded and inspected by quality control officers before being packed into cartons made from Kraft paper or fibre-board material.

## **7. Packaging and labelling**

- 7.1 Packaging material may be made of fibre-board which can be manufactured either from recycled material or virgin Kraft paper. Only clean new cartons are allowed.
- 7.2 The packaging must be clearly marked with individual grower consignment numbers and packer or distributor identification to enable trace back in the event that this is necessary
- 7.3 The following information must be printed on each package
- Product of Egypt
  - Name of exporting company (the trade mark)
  - The variety
  - The item (consignment) number
  - The lot number
  - Production date
  - Export distribution

## **8. Cold disinfestations**

Cold disinfestations will be done pre-shipment or on transit. In the event of a treatment failure, treatment may be completed on arrival.

The following are recommended for treatment of Mediterranean fruit fly

<b>Fruit pulp temperature °C</b>	<b>Exposure period in consecutive days</b>
0.00 or below	10
0.55 or below	11
1.11 or below	12
1.66 or below	14
2.22 or below	16

### 8.1 Pre-shipment treatment

If a consignment is to receive pre-shipment cold treatment, CAEPQ will ensure compliance with the following conditions

#### *I. Cold room facility*

- (i) Pre-shipment treatment will only be permitted in cold room facilities approved by CAEPQ
- (ii) CAEPQ is responsible for ensuring that cold room facilities used by exporters are of suitable standards and have refrigeration equipment capable of achieving and holding the fruit at the required temperature
- (iii) CAEPQ will keep a register of cold treatment facilities approved for pre-shipment treatment of citrus to Kenya. This register will include documentation covering
  - a) Location and construction plans of all facilities including owner/operator contact details
  - b) Dimensions of the facility and room capacity
  - c) Type of insulation used in walls, ceilings and floors
  - d) Make, model, type and capacity of the refrigeration condenser and evaporator/air circulation and
  - e) The temperature range of the equipment, defrost cycle control and specifications and details of any integrated temperature recording equipment
- (iv) CAEPQ will forward to KEPHIS (before the start of each citrus season) names and addresses of currently registered cold disinfestations treatment establishments

#### *II. Recorder types*

CAEPQ is to ensure that the combination of temperature probes and temperature recorders are:

- a) Suitable for the purpose. They should meet the standards required by the USDA. Sensors should be accurate to  $\pm 0.15$  °C in the range of  $-3.0$  °C to  $+3.0$ °C
- b) Able to accommodate the required number of probes
- c) Capable of recording and storing data for the period of the treatment and then until the information can be examined by a CAEPQ officer
- d) Capable of recording all temperature sensors at hourly to the same degree of accuracy as is required of the sensors, and
- e) Capable of producing printouts which identify each sensor, time and the temperature, as well as the identification number of the storage facility

### *III. Calibration of temperatures*

(i) Calibration must be conducted using slurry of crushed ice and distilled water, using a certified thermometer approved by CAEPQ

- a) Any sensor which records more than  $\pm 0.6$  °C from 0°C must be replaced by one that meets this criterion
- b) When the treatment has been complete, CAEPQ will check the calibration of the fruit sensors using the method referred to in section III

(ii) Calibration of temperature recorder and sensor under CAEPQ supervision;

- a) Calibration must be completed using slurry of crushed ice and distilled water, using certified thermometer approved by CAEPQ
- b) Any sensor which records more than plus 0.6°C 0°C must be replaced by one that meets this criterion
- c) A record of calibration of fruit sensors must be prepared for for each container and signed and stamped by a CAEPQ officer. The original must be attached to the phytosanitary certificate which accompanies the consignment
- d) On arrival KEPHIS will check the calibration of the fruit sensors using the method in section III (i)

(iii) Placement of temperature sensor under CAEPQs' supervision;

- a) Packed fruits must be loaded into shipping containers under CAEPQ's supervision. Container should be packed in a manner which ensures that there is equal airflow under and around all pallets and loose stacked cartons

- b) Records of temperatures are required from at least three location
- c) At least three sensors are necessary for each container
- d) Two fruit sensors must be placed approximately 1.5 metres from the end of the load for 12 metres containers and approximately 1 metre from the end of the load for 6m containers
- e) One fruit sensor must be placed in a centre carton and one in carton at side wall, both at the height of the stack/pallet
- f) Sensors must be under the direction and supervision of an officer authorised by CAEPQ
- g) On completion of treatments, printouts of all temperature sensors must be made available to the KEPHIS officer at the point of arrival for final clearance of the container.

#### *IV. Placement of temperature sensors under CAEPQ's supervision*

- a. Palletised fruits must be loaded into cold rooms under CAEPQ's supervision and may be pre-cooled at the exporters discretion.
- b. As minimum, two probes (at the inlet and the outlet points of air circulation) to measure room temperature and minimum of four probes for fruit flesh temperature are required with one placed
  - (i) One at the centre of the stack in the centre of the cold room
  - (ii) One at the corner of the top stack in the centre of the cold room
  - (iii) One at the centre of the stack near the outlet of the cold air and
  - (iv) One at the corner of the top near the outlet of cold air
- c. Placement of sensors and connection to a logger must be under the direction and supervision of an officer authorised by CAEPQ.
- d. Logger records may commence at any time, however the treatment time will be deemed to have begun only after all probes have attained the nominated treatment temperature
- e. Where only the minimum number of probes have been used, and in the event that any fails to record a temperature for a period of more than four consecutive hours, the treatment will be declared void and must be started again.

#### *V. Progressive review of treatments*



If the record of treatment indicates that the treatment parameters have been met, then CAEPQ may authorise cessation of the treatment and if the sensors pass calibration as specified in section III, then the treatment will be considered to have been successfully completed.

Sensors should be calibrated before the fruit is moved from the treatment room

#### *VI. Confirmation of treatment*

- (i) After the nominated treatment period has elapsed, probe is to be re calibrated using the procedures in section III. Records must be kept for KEPHIS audit.
- (ii) If any probe shows a higher calibration reading at the completion of the treatment than at the initial calibration setting, the recordings from the probes will be adjusted accordingly. If this adjustment reveals that the nominated treatment schedule was not met, the treatment will be deemed to have failed. There is the option of retreating this fruits at the discretion of CAEPQ and the exporter.
- (iii) Print outs of temperature records are to be accompanied by suitable data summaries that indicate that the required cold treatment of the product has been achieved
- (iv) CAEPQ must endorse these records and summarises before confirming that the treatment has been successful. These are to be availed for KEPHIS audit when required
- (v) If required cold treatment of the products has not been achieved, the logger may be reconnected and the treatment continued provided that:
  - a) CAEQ confirms maintenance of the required conditions or
  - b) The elapsed time since treatment cessation and recommencement is less than 24 hours

In both cases, data will continue to be collected from the time the logger is reconnected

#### *VII. Loading into containers*

Containers must be inspected by CAEPQ before loading, to ensure pest freedom and that any vents are covered to prevent the entry of pests.

#### *VIII. Sealing of containers*

- (i) A numbered seal must be placed on the loaded container door by an CAEPQ authorised office and the seal number noted on the phytosanitary certificate
- (ii) The seal must only be removed by a KEPHIS officer at the port of entry in Kenya

- (iii) Taping of the inners to the outers (of the telescopic cartons) of all top layer packages is required to prevent the outer lifting as a result of vibration, and blocking the airflow in the headspace. If this requirement is not adhered to KEPHIS may reject the consignment on opening the container

#### *IX. Temperature records*

- (i) The in transit arrangement is for the cold disinfestations treatment to be completed on transit. The shipping company will download the computer records for the disinfestations treatment and forward them to KEPHIS Nairobi office
- (ii) KEPHIS will verify that the treatment records meet Kenya's disinfestations requirements and advise the state in which the consignment are arriving that, subject to calibration of the sensors, the treatment is complete

### **9. Phytosanitary certification**

- 9.1 A phytosanitary certificate issued by CAEPQ must accompany every consignment of fresh citrus from Egypt and have the following additional declaration: "*The consignment was produced and inspected in accordance with the Agreement on plant quarantine between CAEPQ and KEPHIS*"
- 9.2 If the consignment received pre-shipment cold disinfestations for Mediterranean fruit fly, then the cold treatment facility, treatment temperature and period (number of consecutive days) must be inserted in the appropriate sections of the phytosanitary certificate.
- 9.3 Both the seal and the container number must be recorded on the phytosanitary certificate
- 9.4 If the consignment is subject to in transit cold disinfestations for Mediterranean fruit fly, then the phytosanitary certificate must also bear the following additional declarations: "*CAEPQ have supervised the calibration and the placement of fruit sensors into the fruit within the container(s) in accordance with the requirements of the Agreement and cold disinfestations treatment has been initiated*".

### **10. Responsibility of KEPHIS**

Pre-clearance by KEPHIS may not be necessary but will be required if problems arise. KEPHIS inspectors at the point of entry will verify that the Phytosanitary certificate conforms with the requirements of the agreement as will be stipulated in the Plant Import Permit. Shipment will be inspected for freedom from soil, sand, and plant debris among other regulated articles and will be subject to sampling for test. If pests are found, the samples will be sent for lab identification and the shipment will be held pending the results.

When shipments reach the port but fail to meet the requirements, it may be refused entry, returned to origin, disposed of or treated at the importer's /exporter's cost. Treatment, where possible, will only be undertaken with arrangement and at the cost of the importer.

Discovery of any live stages of any quarantine pest in any shipment may result to suspension of the importation programme until remedial action is taken at origin.

KEPHIS will report to CAEPQ any pest interception or any form of non compliance with any of the conditions of this agreement.

### 11. Authorization

This agreement will commence on the last date of the signatures below. The arrangement will remain in force unless rescinded or due to any of the circumstances given above as cause for such action. Either side may suggest changes in this arrangement for consideration at any time.

KEPHIS reserves the right to decline issuance of import permits in the event that Kenya's phytosanitary requirements are not met or a change in the pest status of the commodity in Kenya occurs.

### Signed in duplicate:

**Dr. Salah Eldein Sherif**  
Head of Central Administration of  
Egyptian Plant Quarantine (CAEPQ)

**Dr. Chagema John Kedera**  
Managing Director of Kenya Plant Health  
Kenya Plant Health Inspectorate Service  
(KEPHIS)

Date: 29/4/2004.....

Date: 29th April 2004.....

At Nairobi: KENYA.....

At Nairobi: KENYA.....

Signature: S. Sherif.....

Signature: J. Kedera.....