

# **PROCEDURE**

**FOR THE CERTIFICATION OF FRESH  
FRUITS FROM THE FRUIT FLY FREE  
AREA OF SONORA, CHIHUAHUA, BAJA  
CALIFORNIA SUR AND NORTH OF  
SINALOA, TO JAPAN**

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I. INTRODUCTION

- 1.1 SAGARPA declared Sonora, Chihuahua, Baja California Sur and North of Sinaloa as fruit fly free areas, according to international and national standards procedures.
- 1.2 The Japanese Ministry of Agriculture, Forestry and Fishery-Plant Protection Division (MAFF-PPD) recognised as fruit fly free areas of the States of Sonora, Chihuahua, Baja California Sur and North of Sinaloa, in order to allow export of certain fruits to Japan, as indicated in the following table.

| Defined areas  | Included Fruits   |
|--|---|
| <ul style="list-style-type: none"><li>• State of Sonora.</li><li>• State of Chihuahua.</li><li>• State of Baja California Sur.</li><li>• The follow municipalities in State of Sinaloa: Ahome, El Fuerte, Choix, Guasave and Sinaloa de Leyva.</li></ul> | Grapefruit ( <i>Citrus paradisi</i> ), orange ( <i>Citrus sinensis</i> ), mandarin ( <i>Citrus reticulata</i> ), and mango ( <i>Mangifera indica</i> ). |

II. OBJETIVES

- 2.1 To establish the procedures to guarantee the exportations of fruits from the zones indicated above.
- 2.2 To homogenise the procedures to facilitate the exportation between the different participants.

III. DEFINITIONS

- 3.1 **State of Sonora, State of Chihuahua, State of Baja California Sur and North of Sinaloa fruit fly free zone:** It refers to the geographic limited are in the States of Sonora, Chihuahua, Baja California Sur and North of Sinaloa, Mexico, which is free of determined species of economic importance fruit flies, and is maintained as stipulated in NOM-023-FITO-1995 and NOM-075-FITO-1997.
- 3.2 **Determined areas:** It refers to the field areas in the State of Sonora, State of Chihuahua, State of Baja California Sur and the follow municipalities in State of Sinaloa: Ahome, El Fuerte, Choix, Guasave and Sinaloa de Leyva.
- 3.3 **Fruit fly:** Fruit flies Tephritidae species such as: *Anasthepha ludens*, *A. serpentina*, *A. obliqua*, *A. striata* and *A. fraterculus*.

- 3.4 **Cultivated areas:** It refers to the commercial fruit orchards, established in the determined areas.
- 3.5 **Urban areas:** It refers to inhabited areas inside the municipalities, which can or can not include commercial fruit orchards.
- 3.6 **Entry port approved in Japan:** Is the entrance point authorised by MAFF to receive the exportations of citrus and mangoes (all Japan's ports and international airports).
- 3.7 **Quarantine:** It refers to a group of established measures in a zone to avoid the introduction and dissemination of pest to free areas.
- 3.8 **Infested area:** It refers to a region where a larvae, pupae or gravid female of any fruit fly specie and two or more adults of the same specie within 5 miles (8 km) radius is detected during 30 days.
- 3.9 **Approved technician:** Phytosanitary professional approved by DGSV, and the Fruit Fly National Campaign.
- 3.10 **Rear guard fruit:** Fruit that does not comply with the exportation established quality standards.

#### IV. PARTICIPANTS

- 4.1 The Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA), Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria (SENASICA), Dirección General de Sanidad Vegetal (DGSV), throughout the program co-ordinator in Baja California Sur, Chihuahua, Sinaloa and Sonora (DGSV - Co-ordinators).
- 4.2 The Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA), State Delegation, through out the Rural Development Districts (Delegation/DDR).
- 4.3 The Plant Health State Committees of the States of Baja California Sur (CESAVBCS), Chihuahua (CESAVECH), Sinaloa (CESAVESIN) and Sonora (CESAVESON) and Plant Health Local Councils
- 4.4 Approved Phytosanitary Professionals.
- 4.5 Certification Organisms.
- 4.6 Producers, packers, States of Baja California Sur, Chihuahua, Sinaloa and Sonora fresh fruits exporters.

## **V. FUNCTIONS AND RESPONSABILITIES**

### **5.1 CO-ORDINATOR RESPONSABILITIES**

- 5.1.1 Supervise and verify the fulfilment of this work procedure by all the participants.
- 5.1.2 Co-ordinate the approved technicians work hired by certification organisms.
- 5.1.3 Act as link between all the participants and Sonora, Chihuahua, Baja California Sur and Sinaloa and DGSV in Mexico.
- 5.1.4 Concentrate all the technical information generated by each one of the approved technicians as part of its daily activity.
- 5.1.5 Inform periodically to all participants about the program activities.
- 5.1.6 Establish the agreements with all the participants to a better program operatively.
- 5.1.7 Evaluate the performance of the approved technicians and take corrective actions if necessary.
- 5.1.8 Make supervision visits to the production areas, the packing houses and to the involucrate transports in the exportation of fruits to Japan.
- 5.1.9 Suspend immediately the inspection service to register packing houses and orchards that do not comply with the procedure.

### **5.2 DELEGATION-DDR RESPONSABILITIES**

- 5.2.1 Verify and make sure that all the participants properly comply with its responsibilities.
- 5.2.2 Register and certify the orchards that produce fruit for exportation and the packing houses that handle the fruit, and requested participation in this exporting program.
- 5.2.3 Make supervision visits to the production areas, packing areas, inspection, certification and exportation fruit shipping to Japan.
- 5.2.4 Issue an International Phytosanitary Certificate to each shipment, according the DGSV established guidelines in circular letter No. 118 of July 13, 2005.
- 5.2.5 Cancel the orchards register and the registers packing houses that do not comply with the established in this document.

- 5.2.6 Suspend immediately the certification of registers packing houses, when in the MAFF phytosanitary inspection in Japan, are detected quarantine importance pests. The involucrate packing house will be suspended until DGSV in co-ordination with Delegation/DDR, make an investigation and take the corrective necessary measures to eliminate the risk and authorise again the packing house to export.
- 5.2.7 Receive the founded larvae during the exportation fruit inspections and make the procedures for the analysis and diagnostic at a local level; in case is necessary, send the larvae to DGSV in Mexico for confirmation.
- 5.2.8 Apply the corrective measures when any failure in the accomplishment of this procedure is detected.

### **5.3 CESAVBCS, CESAVECH, CESAVESIN AND CESAVESON RESPONSIBILITIES**

- 5.3.1 Verify that its union members properly comply with their responsibilities.
- 5.3.2 Endorse a Financial Agreement with DGSV in Mexico to pay the DGSV Program Co-ordinator in Sonora, Chihuahua, Baja California Sur and Sinaloa expenses.
- 5.3.3 Provide to Delegation/DDR and to DGSV/Co-ordinator all the necessary information to solve, in case in presented, conflicts with any one of the union members.

### **5.4 PLANT HEALTH LOCAL COUNCIL RESPONSIBILITIES**

- 5.4.1 Verify that its union members properly comply with its responsibilities.
- 5.4.2 Provide to Delegation/DDR the producers and/or orchards records, with its geographic position, so it can make the corresponding verification visits, in order to issue the orchards certification.

### **5.5 PRODUCER RESPONSIBILITIES**

- 5.5.1 Comply with all the mentioned requirements in this procedure for the orchards and shipping to packing house.
- 5.5.2 Provide to the Council information about the location of exportation fruit production orchards to Japan and obtain the Delegation/DDR certification.
- 5.5.3 Export fruit to Japan only through registers and Delegation/DDR certificate packing houses.

5.5.4 Inform to Delegation/DDR and CESAVBCS, CESA VECH, CESAVESIN and CESAVESON the harvest calendar at least 30 days prior the start.

## **5.6 PACKING HOUSES RESPONSIBILITIES**

5.6.1 Comply with the packing requirements, identity, transport and exportation fruit shipments security according with this procedure for exportation to Japan.

5.6.2 Inform the operation beginning in concordance with NOM-023-FITO-1995, so SAGARPA personal makes the verification visits in order to issue the exportation certification.

5.6.3 Accept only fruit from Delegation/DDR certified orchards.

5.6.4 Inform immediately to Delegation/DDR and CESAVBCS, CESA VECH, CESAVESIN and CESAVESON about any problem during the shipping from the packing house to Japan's entry port.

5.6.5 Throw away every day the rear guard fruit out of the packing house.

5.6.6 Maintain clean the selection, packing and shipping area.

5.6.7 Verify that the staff designed for the operation of this guide complies with its responsibilities.

5.6.8 Designed an inspection area, which must be illuminated, clean, with tables to cut the fruit, boxes to deposit the sample and cut fruit.

5.6.9 Assign an area so the approved personal makes its desk activities.

5.6.10 Ask for the International Phytosanitary Certificate expedition only in Delegation/DDR office schedule.

## **5.7 APPROVED RESPONSIBILITIES**

5.7.1 Verify that all the established requirements in this procedure are complied.

5.7.2 Inform daily to the DGSV/Co-ordinator all the activities related with the assigned company operation.

5.7.3 Supervise that only fruit from register orchards is admitted to the selection and packing process (check mobilisation guides).

5.7.4 Supervise that fruits from two or more orchards do not get mixed in the selection and packing process.

- 5.7.5 Verify that there are no yesterday fruits in the washing, selection and packing area or when a selection process of an orchard to another one changes.
- 5.7.6 Make the selection, revision, cutting and inspection of the fruits coming in the field shipment taken for sample.
- 5.7.7 Verify that every packed box is stamped with a SAGARPA/SENASICA/DGSV official rubber seal and orchard corresponding number.
- 5.7.8 Verify that the exportation conveyance is clean before the exportation fruit shipping.
- 5.7.9 Verify if only fruit that has accomplished with this procedure is shipping.
- 5.7.10 Put on the numerated seal in each trailer with exportation fruit.
- 5.7.11 Issue the corresponding verification advice to each exportation fruit conveyance for Japan.
- 5.7.12 Have a record of all the inspections where it includes:

#### ORCHARD – PACKING GUIDE

Guide number, date, specie, orchard name, approximated kilograms, variety, filed name, register, company and sampled fruits.

#### SHIPMENTS REPORT

Guide number, date, orchard name, weight (Kg), number of boxes, number of bins, number of IPC, variety, tag, license plate, economic number of box, entry port, specie, scientific name, company name, inspector, observations.

#### ORCHARDS

Orchard name, register number, location, owner.

- 5.7.13 Report to DGSV / Co-ordinator the inspections made daily.
- 5.7.14 Support and follow the DGSV / Co-ordinator dispositions to a better program performance.
- 5.7.15 Hire with COSAFI, S.C. and request for administrative and financial support to develop correctly its functions.

### 5.8 CERTIFICATION ORGANISMS RESPONSIBILITIES

- 5.8.1 Provide and hire the necessary fruit flies approved technicians for the exportation program operation, which will be at co-ordinator orders.

- 5.8.2 Provide to the hired professionals the administrative and financial facilities (equipment, materials, etc.) for the correctly work development.
- 5.8.3 Certification Organisms administratively will be the boss of the approved technicians, however they technical and operatively will depend of DGSV / Co-ordinator, which will evaluate its performance and will take the necessary actions.

## VI. PROCEDURE

### 6.1 FOR EXPORTATION FRUIT CERTIFICATION

#### 6.1.1 ORCHARD TO PACKING HOUSE FRUIT MOBILISATION

- 6.1.1.1 The Delegation /DDR will register and mark in a map the defined area, including the origin orchard name. A specific register number will be assigned to each orchard to facilitate the identification and the origin of the fruit.
- 6.1.1.2 The Council, in co-ordination with the Delegation/DDR, will issue an orchard to packing house mobilisation guide. At the harvest, this document will be issue locally, and will specified the defined area number, orchard register number, owner, expedition date, amount of fruit, trailer number or license plate number, and orchard's person in charge signature and of Council staff, prior registers of the signatures.
- 6.1.1.3 The harvested fruit in defined areas must be sent to the packing house with the mobilization guide, in field boxes or in bunk. This fruit must be taken directly from the orchard to the approved packing house. The conveyances will not be authorised for transit by the defined areas that have been cancelled, unless there are:

- 1) Clean and debris free at shipping
- 2) Perfectly closed
- 3) Secured with numerated metallic seals, with "SENASICA-DGSV" legend.

#### 6.1.2 PACKING HOUSE

- 6.1.2.1 All fruit will be in disposition for the approved technicians assigned to each packing house and Delegation/DDR inspector, to take samples. The fruit will be cut and checked searching fruit flies larvae. The sample will be taken as following:
- Mangoes: 2 fruits per field box
  - Citrus: 150 fruits per field shipment



- 6.1.2.2 The fruit for sample will be taken directly from the field boxes or the first point of selection in the line.
- 6.1.2.3 If fruits with larvae are detected, the exportation certification process of that orchard will be stopped immediately until the specimen has been plenty identified by Delegation/DDR. If the specimen is identified as a quarantine importance fruit fly, the orchard where it came will be immediately put under quarantine, including a 5 miles radius from the detection site.
- 6.1.2.4 All boxes intended to be used for exportation fruit packing must be new and will be sealed with the orchard register number and with the following legend:

**SAGARPA-SENASICA-DGSV.**  
**State, Mexico - Exportation Program to Japan**  
**Packing house register number**  
**Defined area name**

When there are presented boxes with adhesive tags, the SAGARPA-SENASICA-DGSV seal will be placed at the middle of the tag and box. In cases where boxes have pre-printed logos, the seal will be placed in a visible place.

The accomplishment of this activity will be supervised by the approved personal.

### **6.1.3 SHIPPING MEANS**

- 6.1.3.1 All conveyances used for transport certificate fruit must comply with the following requirements:
- All ducts and openings must be cover with wire mesh number 32.
  - Must be clean and debris free, otherwise the platform washing must be done.
  - The inspector will made the metal strip all conveyance doors with numerated seals, with the legend "SENASICA-DGSV". The seal number or numbers will be written in the International Phytosanitary Certificate (IPC) issued by Delegation/DDR official inspectors.

### **6.1.4 VERIFICATION ADVICE**

At the end of verification, the approved technicians will issue an advice, which will be used as base for the expedition of the International Phytosanitary Certificate.

### **6.1.5 IPC EXPEDITION**

- 6.1.5.1 This document will be issued in concordance with the established guidelines of DGSV in Mexico in its circular letter 118/96 from July 13,

2005. Only if the shipments presents the original advice from the approved technician, the IPC will be expedited.

- 6.1.5.2 The IPC must specify the following additional declaratory: **“These regulated articles are originated of a pests free area”**

## **6.1.6 POST-CERTIFICATION ACTIONS**

### **6.1.6.1 MECHANICAL FAILURES OR ACCIDENTS**

When the conveyance suffers an accident during its travel to the shipping point, any movement of shipping to other conveyance can't be made, until a Delegation/DDR official person is present, and which is going to issue a new IPC.

## **6.2 FOR MAINTAIN THE CONDITION OF THE FREE AREA**

It will be continued applying the established actions in the NOM-075-FITO-1997 and in the NOM-23-FITO-1995, to encouraging the supervision measures on the state points of entry ground, air or seaside and in the established areas or municipalities in the status of defined areas establishing the next actions:

### **6.2.1 POINT OF INTERNAL INSPECTION**

- 6.2.1.1 In the point of internal inspection located in Estacion Don, Agua Prieta, Yecora and Alamos in Sonora, Charcos and Jimenez in Chihuahua, Pichilingue and Guerrero Negro in Baja California Sur; Las Brisas in Sinaloa the transport inspection will be done during 24 hours day all year round, to look for fruit flies host fruits of fruit flies.
- 6.2.1.2 SAGARPA joint with the civil or military authorities in Estacion Don, Agua Prieta, Yecora Alamos, Charcos and Jiménez in Chihuahua, Pichilingue and Guerrero Negro in Baja California Sur; Las Brisas in Sinaloa, they will do the inspection of 100% of the baggage and bags in the buses and particular transports.
- 6.2.1.3 All the fruit submitted to regulation should be treated according to the established quarantine treatment programs in the Appendix C. Fruit submitted to hydrotermic treatment in origin could entry to the free area, when the sampling in the inspection points said there is no fruit flies live larvae.
- 6.2.1.4 All the relevant data will be written in the treatment certificate, including dosage, time of beginning an ending, treated product (s), number and weight of boxes. All the copies of the certificate must sign at the end of the treatment.

- 6.2.1.5 Fruits samples should be taken before to the fumigation treatment in the inspection points according to the Appendix C. Shipments submitted to hydrotermic treatment in origin must be sampled, in the inspection points located in Agua Prieta and Estación Don in Sonora; Jiménez in Chihuahua, Pichilingue in Baja California Sur and Las Brisas in Sinaloa.
- 6.2.1.6 After the treatment, an ink stamp will be placed in every box indicating days, month and Internal Verification Point where the product was treated.
- 6.2.1.7 When shipments have been submitted to hydrotermic treatment in origin, after the fruits have been sampled an ink stamp will be placed to every box indicating days, month and Internal Verification Point where the product was sampled.

## **6.2.2 PORTS AND AIRPORTS**

Ships will be inspected by SAGARPA in the entry port. The inspection will be done by SAGARPA in the airports of: Hermosillo, Guaymas and Ciudad Obregon (in Sonora), Cd. Juarez and Chihuahua (Chihuahua), La Paz, Los Cabos (Baja California Sur), Los Mochis (Sinaloa).

## **6.2.3 TRAINS**

Trains which entry to Sonora will be boarded and inspected in route by federal assigned people by SAGARPA. Trains, which enter to the South of the State, will be a boarded in Sufragio, Sinaloa. Trains which enter to the North from Baja California they will be inspected in Puerto Peñasco. Trains which entry to Chihuahua, the trains which entry to Baja California Sur, the trains which entry to Sinaloa will be boarded in Guamuchil, Sinaloa.

## **6.2.4 MARKETS**

- 6.2.4.1 The inspection of the markets will be frequently done in the supply centers.

The objective of the inspection will be:

Verify the lacking of hosts of fruit fly of absolute quarantine. According to the Appendix A. If it is found presence of hosts of fruit flies, fruits will be retained and destroyed. Sellers could be submitted to fine and or punishment according to the Ley Federal de Sanidad Vegetal.

Verify that products submitted to regulation have been fumigated or sampled adequately and that every product has the corresponding documentation.

Make the cutting of fruits like measures of quality control, when it is suspected that it can have live larvae of fruit flies.

Supervise the unloading conveyances that have been identified like suspected in the internal inspection points, and they have been allowed continue to the central market (to they final destiny) down the procedures of custody.

#### 6.2.4.2 LARVAE DETECTION

Live larvae detected in any commercialised fruit in markets, will be considered as a "regulatory incident" and should be immediately destroy in shipment where the pest is detected. DGSV will issue a "Detection Alert" and will make a research to determine how the product entered to the State, and an intensive work of sampling and cutting of fruit in every markets to determine the importance of the problem. Once the investigation is concluded, the responsible must paid a fine and will be punished according to the Ley Federal de Sanidad Vegetal.

### 6.3 MAINTAINMENT OF DEFINED AREAS.

#### 6.3.1 TRAPPING

It will take place a permanent trapped program to detect opportunity the possible presence of fruit flies such for species of economical importance. Densities of tramping will be the next ones:

##### a. Cultivated Areas:

- Traps McPhail: 5 traps per square mile (1trap/50 ha)

##### b. Urban areas (including cities, towns and villages):

- Traps McPhail: 15 traps per square mile (3traps/50 ha).

##### c. Urban areas in the municipalities (including cities, towns and villages)

- Traps McPhail: 25 traps per square mile (1trap/10 ha).

#### 6.3.2 SAMPLING AND/OR TRAPPING PERIODS

6.3.2.1 For orchards of citrus and mango the trapping will be done every year.

6.3.2.2 Revision and the service to the traps will be in charge of Local Council. It will dive service to the traps McPhail according to a calendar of 7 days. Delegation/DDR will co-ordinate and supervise all trapping activities.

6.3.2.3 Delegation/DDR will utilise Mexican flies of the sterile fruits, marked with coloured as measures of quality control, to ensure that it is giving appropriated service to the traps. Deficiencies in the trapping will be

documented and Local Council should carry out the corrective actions immediately. Any deficiency that it is not revised immediately will result in the suspension of the exportations of the defined area. Additional to the control.

### **6.3.3 FRUIT FLY DETECTION**

6.3.3.1 All the specimens which be caught on the trappings or samplings should be remitted to Delegation/DDR in appropriate conditions for identification and in the event of those correspond to quarantine pests; it will apply the following actions.

- **QUARANTINE MEANING FRUIT FLIES**

In case only an adult male or virgin female fruit fly of any quarantine meaning specie is detected, the trapping density will be increased at 80 McPhail traps in a one mile square (250 ha) area around the detection site.

6.3.3.2 For both cases, if in 30 days after the detection of the first captured fly, another fly of the same specie is detected, within 5 miles (8 km) of the first detection, the area in any direction where it was detected is considered as infested. Any fruit fly host fruit found would be eligible for exportation, until DGSV determine that pest outbreaks have been eradicated.

#### **Quarantine action**

- a. When infestations exist in a defined area, DGSV will notify immediately to MAFF office.
- b. DGSV will take immediately actions to stop the exportation of fruit form an infested area.
- c. DGSV will establish a quarantine in all properties within 5 miles (8 km) in any direction of the infested property.

### **6.3.4 SPRAYING PROGRAMS**

#### **6.3.4.1 URBAN AREAS**

Infested urban areas with any cited fruit fly specie in this document must be in an aerial or terrestrial spraying program with toxic bait within 200 meters around the detection area. A minimum of 4 treatments at 7 to 10 days intervals will be applied. The sample and cutting of fruit will be made too and soil treatment as a security measures.

#### **6.3.4.2 CULTIVATED AREAS**

The cultivated areas infested with any cited fruit fly specie in this document, will be inserted in a treatments program (toxic bait spraying or sterile fruit flies liberation, when necessary) that will cover all the orchard and a protection area of 300 meters around it.

#### 6.3.4.3 TOXIC BAIT SPRAYING

The toxic bait spraying will consists in: 1) Aerial toxic bait spraying with Malathion UBV and a hydrolysed protein, at a 1:4 proportion, with a 12 ounces per acre doses, (877grams/ha) or 2 terrestrial toxic bait spraying with a litter of Malation 1000 E, plus 4 litters of protein, dissolved in 90 litters of water. The toxic bait treatment will be repeated at 7 to 10 days intervals and will continue until a minimum of 4 treatments has been applied, after the last capture.

Liberation of sterile fruit flies will be made if is convenient.

#### 6.3.5 QUARANTINE CANCELLATION WITHIN A DETERMINED AREA

It will be considered that an outbreak has been eradicated when no additional adults or larvae of fruit fly have been detected during 3 pest generations. When this happens, DGSV will authorise the re-start of exportation in the area.

### VII. SACCTIONS

#### 7.1 ORCHARDS AND PACKING HOUSES CANCELLATION AND RE-INSTALLATION

7.1.1 Any fruit offering for exportation to Japan, and is not from a defined approved area, or is accompanied by a faked official document including the mobilisation guide, will cause the immediately cancellation for the exportation orchard, packing house and tag involved.

7.1.2 In cases the fruit comes from outside a defined approved area and/or faked officials documents, DGSV and Delegation/DDR will make a detailed investigation to determine the exactly violation, and the corrective necessary measures, meaning while this investigation is taking place the involved companies can not continue the exportation.

#### 7.2 EXPORTATION SUSPENSIONS

7.2.1 DGSV and Delegation/DDR can suspend the exportation from a defined area when is determinate that the procedures to keep it were not correctly followed; is include the regulatory procedures and the certification for exportation from a defined area procedures.

7.2.2 Suspend exportation defined areas, can continue with the exportation when DGSV and Delegation /DDR determine that the procedures has been followed appropriately.

7.2.3 The program will be suspended if any of the established conditions in this document are not met.

#### **VIII. CONDITIONS / COSTS**

All expenses made by DGSV, Delegation/DDR and packing assigned approved technicians will be covered by CESAVESON, CESAVECH, CESVBCS, CESAVESIN.

IX. APPENDIXES

9.1 APENDIX A

FRUITS UNDER PHYTOSANITARY REGULATION

From host fruits:

From partial quarantine fruits: The following are considered partial quarantine fruits:

| Fruit specie   | Common Name  | Scientific name   |
|--|--|---|
| - <i>Citrus</i> fresh fruits genus                   | Citron<br>Sweet lime<br>Real lime<br>Mandarin<br>Sweet orange<br>Sour orange<br>Pome (grapefruit)<br>Grapefruit  | <i>Citrus medica</i><br><i>C. limetta</i><br><i>C. limon</i><br><i>C. reticulata</i><br><i>C. sinensis</i><br><i>C. aurantitium aurantitium</i><br><i>C. maxima</i><br><i>C. paradisi</i>   |
| - <i>Fortunella</i> fresh fruits genus               | Chinese or Japanese orange (kumquat)   | <i>Fortunella japonica</i>  |
| - <i>Mangifera</i> fresh fruits genus                | Mango (All varieties)  | <i>Mangifera indica</i>   |
| - <i>Poncirus</i> fresh fruits genus                 | Trifoliolate orange  | <i>Poncirus trifoliata</i>  |
| - <i>Psidium</i> fresh fruits genus                  | Guava (All varieties)  | <i>Psidium guajava</i>  |
| - Plus, other fruit flies host fresh fruits such as: | Gooseberry<br>Apricot<br>Sapodilla<br>Plum<br><br>Yellow plum<br>Peach, Nectarine<br>Pomegranate<br>Fig<br>Mamey<br>Common apples and varieties<br>Quince<br>Pear<br>Hawthorn<br>Mamey sapodilla | <i>Averrhoa carambola</i><br><i>Prunus armeniaca</i><br><i>Manilkara zapota</i><br><i>Prunus royen</i><br><i>Prunus domestica</i><br><i>Spondias mombin</i><br><i>Prunus persica</i><br><i>Punica granatum</i><br><i>Ficus</i> spp<br><i>Pouteria sapota</i><br><i>Malus</i> spp<br><i>Cydonia oblonga</i><br><i>Pyrus communis</i><br><i>Crataegus pubenses</i><br><i>Mammae americana</i> |



Of absolute quarantine fruits: The following are considered absolute quarantine fruits:

| Common name        | Scientific name               |
|--------------------|-------------------------------|
| Myrtle             | <i>Psidium satorianum</i>     |
| Annona             | <i>Annona spp</i>             |
| Baricoco           | <i>Micropholis mexicana</i>   |
| Star apple         | <i>Chrysophyllum cainito</i>  |
| Capulin            | <i>Prunus capulli</i>         |
| Red plum, Hog plum | <i>Spondias spp</i>           |
| Cuajinicuil        | <i>Inga jimicuil</i>          |
| Yellow chapote     | <i>Sargantia gregii</i>       |
| Cherimoya          | <i>Annona Cherimola</i>       |
| Cactus fruit       | <i>Cereus geometrizzans</i>   |
| Custard apple      | <i>Annona muricata</i>        |
| Icaco plum         | <i>Chrysobalanus icaco</i>    |
| Cashew nut         | <i>Anacardium occidentale</i> |
| Medlar             | <i>Eriobotrya japonica</i>    |
| Persimmon          | <i>Diospyros kaki</i>         |
| Rose apple         | <i>Syzygium jambos</i>        |
| Yellow sapodilla   | <i>Pouteria campechiana</i>   |
| White sapodilla    | <i>Casimiroa edulis</i>       |
| Black sapodilla    | <i>Diospyrus digyna</i>       |
| Meddler            | <i>Annona squamosa</i>        |

The industrialised or processed partial and/or absolute quarantine fruits can be freely mobilised.

## 9.2 APPENDIX B

### From fruits sampling:

The sampling of fruits will determine the shipment infestation and should be made in internal verification points. The expenses from this activity will be covered by the interested part.

The fruit will be cut in one centimetre thick, to observe the presence or absent of live fruit fly larvae.

The sampling must be made as follow.

a. In field boxes

| Number of boxes | Number of fruits to be sampled by box |
|-----------------|---------------------------------------|
| 0001-0010       | 4/1                                   |
| 0011-0020       | 3/1                                   |
| 0021-0050       | 2/1                                   |
| 0051-0100       | 1/1                                   |
| 0101-0400       | 1 /2                                  |
| 0401-0600       | 1/3                                   |
| 0601-0800       | 1 /4                                  |
| 0801-1000       | 1/5                                   |
| > 1000          | 300 fruits                            |

b. In commercial boxes

| Number of boxes | Number of boxes to be sampled by shipment |
|-----------------|---|
| 001-100         | 1   |
| 101-300         | 2   |
| 301-600         | 3   |
| > 600           | 4   |

All fruits chosen for the sample must be cut. When a 1 to 50 boxes shipment is present, the sampling will be the one specified for field boxes.

If in the sampling, the detected level of fruits with live fruit flies is less than 0.5%, then it must have a phytosanitary treatment for the internal commercialisation; if the infestation is equal or over 0.5% a phytosanitary treatment must be applied and the mobilisation will be under custody until a zone under phytosanitary control, for its commercialisation. In both cases will be to the interested risk and cost.

### 9.3 APPENDIX C

#### Quarantine treatment program for the partial quarantine products

The quarantine-approved treatments are the methyl bromide fumigation in the Internal Verification Points (IVP) and the hidrotermic applied in origen.

#### Fumigation

- a) The fumigation will be permitted only if the fumigation chambers are certified and registered in the program by the Secretariat.

- b) Before starting the treatment, the pulp temperature of seven fruit has to be taken from the coldest place of the shipment, the temperature must be 21.1°C more and must be humidity free. If the temperature is minor, the fruit has to be warm up so the fumigant diffuses properly. This procedure must be authorised by responsible of the shipment without any cost to the authorities.
- c) The treatment for mango must be made in fumigation chambers with methyl bromide (100% pure), with a 40g/m<sup>3</sup> doses during two hours of exposition at a normal atmospheric pressure and with one hour of ventilation, for the other partial quarantine fruits indicated in this document the doses will be 24g/m<sup>3</sup>.

**Hidrotermic treatment**

For the mobilisation of mango to a free zones, the hidrotermic treatment is accepted too if apply in origen, the procedure will be as follow:

- a) The hidrotermic application in origin will be permitted only if treatment facilities are part of the program and certified by the Secretariat.
- b) All shipments subdue to treatment must be protected with a phytosanitary certificate for national mobilisation and will be held for shipment inspection and sampling of fruits in the internal verification points prior the introduction to a free area. If in the sampling the detected level of fruits with live fruit flies larvae is less than 0.5%, it will must have a phytosanitary treatment in order to be mobilised; if the infestation is equal or grater than 0.5% a phytosanitary treatment must be applied and the mobilisation has to be under custody until a under control phytosanitary zone for its commercialisation. In both cases the risk and cots will be by the interested part.
- c) The hidrotermic treatment authorised by the Secretariat must have a constant temperature of 46.1°C in the following way:

| Varieties | Weight          | Exposition time |
|-----------|-----------------|-----------------|
| Rounded   | 700 gr. or less | 90 minutes      |
|           | 500 gr. or less | 75 minutes      |
| Elongated | 570 gr. or less | 75 minutes      |
|           | 375 gr. or less | 65 minutes      |