



agriculture, land reform & rural development

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA

Phytosanitary workplan for the importation of fresh mMango (*Mangifera indica*) fruit from India to South Africa

1. Additional Declaration on the Phytosanitary Certificate:

1.1. The fruit in this consignment originate from registered Production Site(s), Packhouse(s), Storage and Treatment Facility(ies).

1.2. The fruit in this consignment have been dipped in fungicide against *Sphaeropsis mangiferae* (= *Macrophoma mangiferae*)

OR

The orchard of origin was treated with a broad-spectrum fungicide during the growing season and was inspected prior to the beginning of harvest by the National Plant Protection Organisation (NPPO) of India and the fruit found free from *Macrophoma mangiferae*

1.3. The consignment underwent:

Irradiation with a minimum absorbed dosage of 400 Grays at the approved and certified irradiation treatment facility using Cobalt-60 for:

Bactrocera carambolae
Bactrocera correcta
Bactrocera diversa
Bactrocera dorsalis
Bactrocera dorsalis species complex
Bactrocera tau
Bactrocera zonata
Deanolis albizonalis
Sternochetus frigidus
Zeugodacus cucurbitae

1.4. The fruit in this consignment was inspected and found free from the pests listed in Annex 1.

2. Registration and approval of Production Sites, Packhouses, Storage and Facilities

2.1. Fresh mango fruit for export to South Africa shall originate from Production Sites, Packhouses, Storage and Treatment Facilities that are registered, audited and approved annually by the NPPO of India.

2.2. The list/database of the registered facilities that have been approved for export of fresh mango fruit to South Africa must contain the following information:

2.2.1 Name and registration number/code of each production site.

2.2.2 Name and registration number/code of each packhouse.

2.2.3 Name and registration number/code of each storage facility.

2.2.4 Name and registration number/code of accredited treatment facility(ies).

2.3. The list/database of the registered facilities that have been inspected and approved by the NPPO of India for export of fresh mango fruit to South Africa shall be made available to the National Plant Protection Organisation of South Africa (NPPOZA) annually, at least four weeks prior to the departure of the first consignment. The NPPOZA shall assess the list/database and the approved facilities will be updated on the NPPOZA website and the NPPOZA shall immediately notify the NPPO of India of this update.

3. Pre-harvest pest management program and general surveillance

3.1. The NPPO of India shall be responsible for inspection before approval of Production Sites, Packhouses, Storage and Treatment Facilities, and to make sure that only production sites that comply with Global GAPs are allowed to export to South Africa.

3.2. The NPPO of India shall ensure that producers implement pest surveillance and / or monitoring and Integrated Pest Management, and inform producers about the list of quarantine pests of concern for South Africa. Upon request, pest monitoring and control records/data shall be made available to the NPPOZA.

3.3. During the growing season, monitoring of pests shall be conducted regularly in the registered Production Sites by the producers, and records shall be maintained. The targets of monitoring will include leaves, stems, flowers and fruits. The monitoring and control records are supervised by the NPPO of India. In case of visual signs of the quarantine pests of concern for South Africa, immediate corrective measures shall be taken. The NPPO of India shall take the final decision on in- or exclusion of the Production Site.

3.4. Sanitation measures such as the destruction of dropped fruits in the orchards shall be done on regular basis.

3.5. Should any new potential quarantine pest(s) be detected in association with fresh mango fruits, the NPPO of India shall immediately notify the NPPOZA about the detection as well as the phytosanitary measure(s) to be implemented. The NPPOZA will notify the NPPO of India of subsequent changes to the quarantine pest list and phytosanitary import requirements.

3.6. Pest control, inspection and other relevant records and information shall be made available for review upon request by the NPPOZA.

3.7. The NPPO of India shall ensure that the producers apply only authorised approved preventative measures (IPM).

4. Post-harvest measures

4.1. Fruit shall be appropriately packed, stored and transported, so as to safeguard against consignment contamination with quarantine pests of concern to South Africa.

4.2. The NPPO of India shall conduct official visual inspection using a sampling scheme able to identify with at least 95% reliability a level of infection of 0,5% or above in accordance with ISPM 31: *Methodologies for sampling of consignments* (FAO, 2008).

4.3. Fruit shall be free from leaves and plant debris.

4.4. The registered facilities shall be maintained clean, free of pests, soil and plant debris; safeguarded and equipped to avoid fruit contamination.

4.5. The packaging material for fresh mango fruit destined for South Africa shall be new and clean cardboard boxes/cartons.

4.6. No packaging material of plant origin, including straw, shall be used.

4.7. Should wood packaging material be used, it shall comply with ISPM 15: *Regulation of wood packaging material in international trade* (FAO, 2013).

4.8. Before loading the packages of irradiated mango fruit, the load area of the conveyance shall be carefully inspected to ensure that it is thoroughly clean and free from any hitch-hiking pests.

4.9. At the completion of loading, the doors of the conveyance shall be closed and locked and a suitable seal shall be affixed to ensure the integrity of the processed consignment.

5. Irradiation facility

5.1. Approval and certification of irradiation facility

5.1.1. Every irradiation facility proposed for certification shall develop and document Standard Operating procedures (SOPs) for irradiation of commodities for mitigation of plant pests. These SOPs shall be reviewed and approved by the NPPO of India. These SOPs may also be subject to review by the NPPOZA.

5.1.2. The irradiation facility will initially be approved and certified by the NPPO of India.

5.1.3. The irradiation facility shall only accept mango fruits from registered packhouses in insect-proof boxes.

5.2. Irradiation schedule of mango fruits

5.2.1. The mango fruit for export shall be irradiated with a minimum absorbed dosage of 400 Grays at approved and certified irradiation treatment facilities using Cobalt-60.

5.2.2. The source and equipment used for pest mitigation treatments shall be capable of safely and effectively irradiating the commodities to the specifications that are required for target pests

5.3. Treatment verification/marketing

5.3.1. Routine dosimetry as well as dose mapping shall be carried out by Ceri-cerous Sulphate (3 mM) dosimeters with a potentiometer readout system ISO/ASTM 51205: 2002 (E), which is calibrated by using Fricke Reference standard E 1026-04 with a spectrometer read out system.

5.3.2. If the absorbed doses fall outside the acceptable limits, the treatment facility shall enter the results in the treatment register as "Failed"; and mark the rejected articles "Rejected" on the cartons. The particulars of rejected articles will be entered

in the product logbook. The rejected articles shall immediately be removed to a rejected article storage area to prevent their shipment to South Africa. The treatment facility shall notify the treatment failure to the NPPO of India and NPPOZA and further investigate the cause of treatment failure and take preventive measures for such failures.

5.3.3. If the results of dosimetry indicate successful treatment, the particulars of treatment viz., Treatment Facility Code (TFC), Treatment Identification Number (TIN) and Date of treatment shall be marked on the right-hand side of the preprinted or affixed RADURA label on each and every box as approved by the NPPOZA and a treatment certificate will be issued for each treated lot.

5.3.4. The treated lots shall be safeguarded in a secured holding room/area, which is distinctly separated from untreated lots by an insect-proof screened partition to prevent any re-infestation of treated commodities by hitchhiking pests.

6. Marking requirements

6.1 Each cardboard box (carton) of fresh mango fruit shall be marked in English with correct and accurate information as indicated in Annex 2.

7. South African import regulations

7.1. Importation of controlled goods into the Republic of South Africa is regulated in terms of the Agricultural Pests Act, 1983 (Act No. 36 of 1983) as amended and an import permit is required in terms of this Act and associated Regulations R.111 of 27 January 1984 as amended.

8. Phytosanitary Certification

8.1. Upon completion of sampling and inspection of the fresh mango fruit destined for South Africa, a Phytosanitary Certificate shall be issued by the NPPO of India prior to shipment. Entry of the consignment to South Africa shall be subject to the availability of the original Phytosanitary Certificate. A Phytosanitary Certificate shall only be issued for fresh mango fruit that meet the requirements as stipulated in these phytosanitary import requirements.

8.2. Prior to shipment of the first consignment and whenever there are changes the NPPO of India shall send a 'void Phytosanitary Certificate sample' to the NPPOZA.

9. Phytosanitary inspection on arrival

9.1. Once a shipment of fresh mango fruit arrives at the designated port of entry in terms of the Agricultural Pests Act, 1983 (Act No.36 of 1983), the NPPOZA shall examine the relevant documents, consignment and marking requirements.

9.2. Any consignment with certification that does not conform to the specifications set out in these phytosanitary import requirements for fresh mango fruit from India to South Africa, the NPPOZA shall reject the consignment. The NPPOZA shall immediately notify the NPPO of India in accordance with the notification procedure outlined in ISPM 13: *Guidelines for the notification of non-compliance and emergency action* (FAO, 2001). The two NPPOs shall consult and implement corrective measures as deemed necessary.

9.3. A representative sample shall be drawn and inspected for quarantine pests of concern to South Africa and suspect fruit shall be dissected to determine the status of infestation.

9.4. Should any pest that is not listed be detected on fresh mango fruit from India, it shall require assessment to determine its quarantine status and whether phytosanitary action is required. The detection of any pest of potential quarantine concern not already identified in the analysis may result in a review of these phytosanitary import requirements to ensure that the phytosanitary measures provide the appropriate level of protection (ALOP) deemed necessary for South Africa.

9.5. The importer is responsible for all costs relating to disposal, removal or rerouting of the consignment, including costs incurred by the NPPOZA to monitor the action taken.

9.6. In cases of non-compliance to the conditions set out in these phytosanitary import requirements for fresh mango fruit from India to South Africa; NPPOZA shall immediately notify the NPPO of India in accordance with the notification procedure outlined in ISPM 13: *Guidelines for the notification of non-compliance and emergency action* (FAO, 2001). The two NPPOs shall consult and implement corrective measures as deemed necessary.

10. Official visits by NPPOZA

10.1. After program initiation, when necessary and agreed by both sides (i.e., in light of any significant changes in pest status and/or detection of quarantine pests on arrival), the NPPOZA may send quarantine officials to India to conduct an on-site inspection/audit.

10.2. Based on the official documents and technical information provided by the NPPO of India and the report of the South African experts, the NPPOZA may approve amendments of this program as deemed necessary.

10.3. The expenses for all official visits will be funded by India.

Annex 1: Quarantine pests of concern for South Africa

Pathogens

Fungi

Actinodochium jenkinsii
Cytosphaera mangiferae
Elsinoë mangiferae
Macrophoma mangiferae
Phomopsis mangiferae
Phytophthora heveae

Arthropods

Insects

Bactrocera carambolae
Bactrocera correcta
Bactrocera diversa
Bactrocera dorsalis
Bactrocera dorsalis species complex
Bactrocera tau
Bactrocera zonata
Ceroplastes actiniformis
Deanolis albizonalis
Maconellicoccus hirsutus
Paracoccus marginatus
Phenacoccus gossypii
Phenacoccus
madeirensis
Phenacoccus parvus
Pinnaspis strachani
Planococcus lilacinus
Planococcus minor
Rastrococcus iceryoides
Rastrococcus invadens
Sternochetus frigidus
Zeugodacus cucurbitae

Annex 2: Marking requirements

Country of origin Production Site name or its registration number/code Packing facility name or its registration number/code Treatment facility name or its registration number/code Date of irradiation and LOT number
For the Republic of South Africa