agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

PHYTOSANITARY IMPORT REQUIREMENTS FOR THE IMPORTATION OF *LITCHI* SPP. FRESH FRUIT FROM MOZAMBIQUE TO SOUTH AFRICA

In order to safely export Litchi (*Litchi* spp.) from Mozambique to the Republic of South Africa (RSA), the National Plant Protection Organisation of Mozambique (hereinafter referred to as the NPPO of Mozambique) and the Department of Agriculture, Forestry and Fisheries of South Africa (hereinafter referred to as DAFF), on the basis of pest risk analysis (PRA), exchanged views and reached consensus as follows:

1. Registration of Production Sites, Pack houses and Storage Facilities

1.1 Litchi fruit for export to South Africa shall originate from production sites, pack houses and storage facilities that are approved and registered annually by the National Plant Protection Organization (NPPO) of Mozambique.

1.2 The list/database of the registered facilities that have been approved for export of Litchi fruit to South Africa shall contain the following information:

1.2.1 Name and registration number/code of each Production Site, the area in which the production site is situated, and the GPS coordinates of the production site

1.2.2 Name and registration number/code, and GPS coordinates of each pack house.

1.2.3 Name and registration number/code, and GPS coordinates of each storage facility.

1.3 The list/database of the registered facilities that have been inspected, approved and registered by the NPPO of Mozambique for the exportation of Litchi fruit to South Africa shall be made available to the Department of Agriculture, Forestry and Fisheries (DAFF) annually. The NPPO of Mozambique shall send the list of registered facilities to the DAFF at least four weeks prior to the departure of the first consignment. The DAFF shall assess the list/database and the approved facilities will be published on the DAFF website.

1.4 The NPPO of Mozambique shall ensure that Litchi fruit for export to South Africa shall only originate from production sites which comply with this phytosanitary work plan.

2. Pre-harvest good agricultural practices, pest management programs and general surveillance

2.1 Monitoring for pests shall be conducted by the NPPO of Mozambique regularly in the Production Sites destined for export to South Africa. Should new potential quarantine pests be detected that are not listed in Addendum A, and associated with *Litchi* spp., the NPPO of Mozambique shall immediately notify the DAFF for appropriate phytosanitary action to be taken. The DAFF shall then notify the NPPO of Mozambique of any phytosanitary measures to be implemented and subsequent changes shall be made to the quarantine pests list in the Phytosanitary Work Plan for *Litchi* spp. importation from Mozambique.

2.2 Fruit fly monitoring shall be initiated at least a year before harvest begins and continues through to the completion of harvest.

2.3 The NPPO of Mozambique shall keep records of fruit fly finds for each trap. Trapping, pest control, inspection and other relevant records shall be made available to the DAFF for review upon request.

2.4 Culled and fallen fruits shall be collected and buried, destroyed, or removed from the production site at least once a week.

3. Post-harvest measures

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

3.2 During harvest and packing of fruit, growers shall avoid bruising the fruit.

3.3 Fruit that has been dropped shall not be exported.

3.4 Fruit from registered production sites, intended for export to South Africa, shall be kept separate from fruit from other production sites from the time of harvest and shall be transported, packed and stored separately from fruit originating from production sites not registered for export to South Africa.

3.5 Rejected or over-ripe fruit shall be removed from the packing area and disposed of at the end of each day.

3.6 Post-harvest inspections shall be conducted according to the ISPM 31: *Methodologies for sampling consignments* (FAO, 2008). This should be able to identify with at least 95% reliability a level of infection of 0,5% or above.

3.7 Should any quarantine pest of concern be detected; the consignment shall be rejected for export to South Africa.

3.8 Fruit shall be free from leaves and plant debris.

3.9 Only free from symptoms of pest damage/ infestation and disease infection fruit shall be packed for export to South Africa.

3.10 The registered pack house(s) and storage facility(ies) shall be maintained clean, free of pests, soil and plant debris; safeguarded and equipped to avoid fruit contamination.

3.11 The packaging material for Litchi fruit destined for South Africa shall be new/ clean cardboard boxes/cartons or clean plastic crates.

3.12 Should wood packaging material be used, it shall comply with ISPM 15: *Regulation of wood packaging material in international trade* (FAO, 2009).

3.13 Litchi for export to South Africa shall be inspected and certified by the NPPO of Mozambique, and shall be maintained in secure conditions to prevent mixing with Litchi for export to other destinations or the domestic market and be kept in secure storage until export.

4. Labelling

4.1 Each carton (box) of Litchi fruit shall be marked in English with correct and accurate information as indicated in Annex 4.

5. Phytosanitary regulation

5.1 An import permit is required in terms of the Agricultural Pests Act, 1983 (Act No. 36 of 1983) and associated Regulations R.111 of 27 January 1987 as amended.

6. Phytosanitary certification

6.1 A Phytosanitary Certificate shall be issued by the NPPO of Mozambique 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 Litchi fruit that meets the phytosanitary requirements prescribed in this document.

6.2 Prior to shipment of the first consignment of each season the NPPO of Mozambique shall send a 'void Phytosanitary Certificate sample' to the DAFF.

6.3 Additional declarations shall be made on the phytosanitary certificate that:

6.3.1 The fruit in the consignment concerned was inspected and found free from pests listed on Annex 2.

6.3.2 The fruit has been produced and packed according to the *Bactrocera dorsalis* risk mitigation measures as prescribed on Annex 1.

7. Phytosanitary inspection on arrival

7.1 Once a shipment of Litchis arrives at the designated port of entry, the DAFF shall examine the consignment, relevant documents and markings.

7.2 Any consignment with certification that does not conform to the specifications set out in this document shall be rejected.

7.3 Upon arrival of the consignment at the port of entry, a representative sample shall be drawn and inspected for all quarantine pests listed in Annex 3 and suspect fruit shall be dissected to determine the status of infestation.

7.4 Should pests or symptoms of infection be found, the samples shall be sent for laboratory identification, and the shipment shall be detained pending the result of laboratory identification. The DAFF shall notify the NPPO of Mozambique of such interception immediately.

7.5 Should any of the quarantine pests in Annex 2 be detected on arrival, the consignment shall be rejected and the DAFF shall immediately notify the NPPO of Mozambique, in accordance with the notification procedures outlined in ISPM 13: Guidelines for the notification of non-compliance and emergency action (FAO, 2001).Imports from the production site shall then immediately be suspended while an investigation is carried out by the NPPO of Mozambique. The DAFF and the NPPO of Mozambique shall consult and

implement corrective measures as deemed necessary. Fruit certified for South Africa prior to the date of suspension and which are already en route shall remain eligible for export. Such consignments shall be detained, inspected and a sample shall be taken and laboratory tests conducted for the quarantine pests in Annex 2.

7.6 Should *Bactrocera dorsalis* be detected on arrival, the consignment shall be rejected in accordance with the relevant section of the Agricultural Pests Act, 1983 (Act No. 36 of 1983) and the DAFF will immediately notify the NPPO of Mozambique.

7.7 If a live specimen of *Bactrocera dorsalis* is detected during phytosanitary inspection upon arrival, the export of Litchis from Mozambique shall be suspended immediately. The DAFF shall immediately notify the NPPO of Mozambique. The DAFF and the NPPO of Mozambique shall consult and implement corrective measures as deemed necessary.

7.8 Should any quarantine pests of concern to South Africa be detected, the consignment/lot shall be rejected.

7.9 The detection of any quarantine pest not listed in Addendum A shall result in rejection of the consignment concerned and a review of these phytosanitary import requirements to ensure that phytosanitary measures provide the appropriate level of phytosanitary protection for South Africa.

7.10 The importer is responsible for all costs relating to disposal, removal or rerouting, including costs incurred by the DAFF to monitor the action taken.

8. Visit by the DAFF

8.1 As part of initial market access, the DAFF shall send quarantine experts to the relevant Litchis producing sites in Mozambique to review and pre-test the quarantine status in cooperation with the NPPO of Mozambique, including pest surveillance and monitoring verification of pest free area status regarding fruit flies, the system of quarantine management practices and the phytosanitary condition of the production areas, orchards, packing houses, cold treatment and storage facilities to review the production practices and facilities.

8.2 After program initiation, when necessary and agreed by both sides (*i.e* any significant changes in pest status and/or detections of quarantine pests on arrival), the DAFF may send quarantine officials to Mozambique to conduct on-site inspections.

8.3 Based on the official documents and technical information provided by the NPPO of Mozambique and the report of the South African experts, the DAFF may approve resumption of this program.

ANNEX 1: SYSTEMS APPROACH FOR THE MANAGEMENT OF *BACTROCERA DORSALIS* ON LITCHI FRUIT FROM MOZAMBIQUE TO SOUTH AFRICA

The following pre- and post-harvest practices reflect the current system for risk management overseen by the NPPO of Mozambique, employed by producers of Litchi to be imported to South Africa:

TABLE 1. OVERVIEW OF THE SYSTEM FOR THE COMMERCIAL PRODUCTION AND EXPORT OF LITCHI FROM MOZAMBIQUE TO SOUTH AFRICA

ACTIVITIES	OUTCOMES
Pre-Harvest • In-field pest control activities • Good Agricultural Practice (GAP)	• Reduced pre-harvest pest prevalence.
• Control of false codling moth (*Thaumatotibia leucotreta)* and Litchi moth (*Cryptophlebia peltastica*) • Removal of damaged and over-ripe fruit	• To avoid infestation of *Bactrocera dorsalis*
• *Bactrocera dorsalis* control programme including: a) seven-day cycle field/orchard sanitation b) application of insecticidal protein bait throughout the production cycle or Bait application technique (BAT) c) male annihilation throughout the production season with the placement of *Bactrocera dorsalis* respondent insecticidal male lures or the male annihilation technique (MAT)	• Reduced population of *Bactrocera dorsalis*

Post-Harvest • Phytosanitary inspection	• Inspection of fruit and removal of external arthropod pests or infested/infected fruit or punctured/cracked fruit
Regulatory/Official • Phytosanitary inspection and certification of consignments	• Certification by the NPPO of Mozambique that consignments are free from regulated pests
• Post-inspection product security	• Certification by the NPPO of Mozambique that fruit in the consignment (s) are not damaged by false codling moth and Litchi moth
• DAFF inspection of documentation and consignment on arrival in South Africa • Non-conformance contingencies	• Prevention of post-treatment infestation of consignments by regulated pests e.g. pest-proof packaging
• Pathway monitoring	• Verification that the phytosanitary import requirements has been met • Treat/re-ship/destroy non-conforming consignment

PRE-HARVEST ACTIVITIES

a) In-field pest control practices

- Litchi growers in Mozambique shall utilize pest control measures to

reduce pre-harvest pest prevalence in commercially produced Litchi for export to other countries.
- These measures include a *Bactrocera dorsalis* control programme and compliance with Good Agricultural Practice (GAP) as outlined below.

b) Good Agricultural Practice

- The GlobalGAP standard for Litchi production requires training programmes for farmers and provincial government representative's safe use of agri-chemicals, on-farm recording of fertilizer applications and crop protection products, inventory, sales, keeping receipts of input purchases and sales record-keeping, and safe fruit handling.

- The cultural control practices to be undertaken such as removal/suppression of weeds and fallen fruit which act as reservoirs for pests. Litchi fruit damaged by *Thaumatotibia leucotreta* and *Cryptophlebia batrachopa* should be removed and buried.

c) *Bactrocera dorsalis* control programme

- A specific programme shall be in place for *Bactrocera dorsalis* in Mozambique and should include surveillance to detect and determine infestation rates.
- The programme shall be maintained by the NPPO of Mozambique throughout the year in Litchi production sites.
- The surveillance programme shall incorporate trapping using cue lure and methyl eugenol, Litchi orchard surveys, periodic random and targeted cutting of fruit collected from orchards and local markets.
- A protein bait spray and insecticide shall be applied in the orchards for *Bactrocera dorsalis* control (Table 1).

POST-HARVEST ACTIVITIES

1. RISK MANAGEMENT MEASURES AND PHYTOSANITARY PROCEDURES (Table 1)

1.1. Management damaged fruits/ infested fruit by external feeders

- Fruit with punctures/cracks or fruit damaged by external or surface-feeding arthropods shall not be packed for export to South Africa.

1.2. Management of *Bactrocera dorsalis*

- The production site control program for *B. dorsalis* shall include an Integrated Pest Management (IPM) program using appropriate, effective and compatible measures at critical stages of development of the pest and crop.
- Population monitoring shall be based on production site inspections and forecasts of infestations.
- Information pertaining to production site control program for *B. dorsalis* shall be made available to DAFF on request (Table 1).

1.3. Supporting operational maintenance systems and verification of phytosanitary status

- A system of operational procedures shall be in place to ensure that the phytosanitary status of Litchi from Mozambique is maintained and verified during the process of production and export to South Africa.

- The proposed system of operational maintenance for the production and export of Litchi from Mozambique to South Africa consists of:

✓ pre-export inspection by the NPPO of Mozambique;

✓ phytosanitary certification by NPPO of Mozambique; and

✓ on-arrival quarantine inspection by DAFF in South Africa.

A. Pre-export inspection and remedial action by the NPPO of Mozambique

✓ The NPPO of Mozambique 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 No 31.

B. Phytosanitary certification by the NPPO of Mozambique

✓ Before a phytosanitary certificate is issued, the NPPO of Mozambique shall conduct phytosanitary inspection.

C. On-arrival quarantine inspection

✓ On arrival in South Africa, each consignment shall be inspected by DAFF.

ANNEX 2: QUARANTINE PESTS LIST FOR *LITCHI SPP*. FRUIT FOR SOUTH AFRICA OCCURRING IN MOZAMBIQUE

INSECTS

Bactrocera dorsalis [Tephritidae]

ANNEX 3: QUARANTINE PESTS LIST FOR *LITCHI SPP*. FRUIT FOR SOUTH AFRICA NOT OCCURRING IN MOZAMBIQUE

FUNGI

Aspergillus restrictus
Drechslera chattopadhyayi
Hendersonula psidii
Peronophythora litchi
Phomopsis longanae
Phytophthora palmivora
Rhizopus arrhizus

MITES

Aceria litchii [Eriophyidae]
Oligonychus yorthesi [Tetranychidae]

INSECTS

Adoxophyes orana [Tortricidae]
Adoxophyes templana [Tortricidae]
Amblypelta lutescens [Coreidae]
Amblypelta nitida [Coreidae]
Anoplophora chinensis [Cerambycidae]
Bactrocera aquilonis [Tephritidae]
Bactrocera jarvisi [Tephritidae]
Bactrocera tryoni [Tephritidae]
Carpophilus mutilatus [Nitidulidae]
Carpophilus obsoletus [Nitidulidae]
Cateremna quadriguttella [Pyralidae]
Ceroplastes ceriferus [Coccidae]
Ceroplastes floridensis [Coccidae]
Ceroplastes pseudoceriferus [Coccidae]
Ceroplastes sinensis [Coccidae]
Conogethes punctiferalis [Crambidae]
Conopomorpha cramerella [Gracillariidae]
Conopomorpha litchiella [Gracillariidae]
Conopomorpha sinensis [Gracillariidae]
Cryptophlebia illepida [Tortricidae]
Cryptophlebia ombrodelta [Tortricidae]
Deudorix epijarbas dido [Lycaenidae]
Deudorix epijarbas diovis [Lycaenidae]
Dudua aprobola Tortricidae]

Dysmicoccus neobrevipes [Pseudococcidae]
Epiphyas postvittana [Oecophoridae]
Eudocima aurantia [Noctuidae]
Eudocima jordani [Noctuidae]
Eudocima fullonia [Noctuidae]
Eudocima maternal [Noctuidae]
Eudocima salaminia [Noctuidae]
Euproctis scintillans [Lymantriidae]
Exallomochlus camur [Pseudococcidae]
Exallomochlus hispidus [Pseudococcidae]
Gatesclarkeana erotias [Tortricidae]
Henosepilachna vigintioctopunctata [Coccinellidae]
Hydrillodes lentalis [Noctuidae]
Hypatima longanae [Gelechiidae]
Hypsipyla robusta [Pyralidae]
Ischyja manlia [Noctuidae]
Isotenes miserana [Tortricidae]
Leptocoris isolatus [Rhopalidae][
Leptocoris ruformarginata [Rhopalidae]
Leptocoris tagalica [Rhopalidae]
Lopholeucaspis cockerelli [Diaspididae]
Lyramorpha rosea [Tessaritomidae]
Maconellicoccus hirsutus [Pseudococcidae]
Maladera castanea [Scarabaeidae]
Megalurothrips distalis [Thripidae]
Monolepta rosea [Chrysomelidae]
Morganella longispina [Diaspididae]
Nezara antennata [Pentatomidae]
Nysius vinitor [Lygaeidae]
Oxycetonia jucunda [Scarabaeidae]
Paracoccus interceptus [Pseudococcidae]
Planococcus angkorensis [Pseudococcidae]
Planococcus lilacinus [Pseudococcidae
Planococcus litchi [Pseudococcidae]
Planoccos minor [Pseudococcidae
Popillia mutans [Scarabaeidae]
Popillia quadriguttata [Scarabaeidae]
Protaetia fusca [Scarabaeidae]
Protaetia nitididorsis [Scarabaeidae]
Pseudococcus cryptus [Pseudococcidae]
Pseudococcus jackbeardsleyi [Pseudococcidae]
Pyroderces dendrophaga [Cosmopteridgidae]
Rutherfordia major [Diaspididae]
Scirtothrips dorsalis [Thripidae]
Spodoptera litura [Noctuidae]
Tessaratoma javanica [Pentatomidae

Tessaratoma papillosa [Pentatomidae]
Thysanofiorinia nephelii [Diaspididae]
Tirathaba rufivena [Pyralidae]

ANNEX 4: THE PACKING MARK

Country of origin
Production site name or its registered unique code
Packing facility name or its registered unique code

For the Republic of South Africa

ADDENDUM 1: NATIONAL QUARANTINE PESTS LIST FOR *LITCHI SPP*. FRUIT FOR SOUTH AFRICA

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Aspergillus restrictus
Drechslera chattopadhyayi
Hendersonula psidii
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