agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

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

In order to safely export *Litchi* spp. fresh fruit from Madagascar to the Republic of South Africa (RSA), the NPPO of Madagascar 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. Additional declarations on the phytosanitary certificate

1.1. The Country of production is free from the pests listed on Appendix 1.

1.2. The fruit in this consignment was inspected according to the inspection procedure in Annex 2 and found free from:

Insects: *Planococcus lilacinus* [Pseudococcidae]
Planococcus minor [Pseudococcidae]
Rutherfordia major [Diaspididae]
Lopholeucaspis cockerelli [Diaspididae]

1.3. The orchards (production sites) for export to South Africa are regularly inspected and laboratory tested for *Phytophthora palmivora.*

1.4. The fruit in this consignment originates from:
1.4.1. Official Pest Free Areas for *Ceratitis malgassa* [Tephritidae] and *Bactrocera dorsalis* [Tephritidae]

OR

1.4.2. Official pest free places of production and pest free production sites for *Ceratitis malgassa* [Tephritidae] and *Bactrocera dorsalis* [Tephritidae]

2. Registration and approval of production sites, packing houses and storage facilities

2.1 The litchi for export to South Africa shall originate from production sites, packing houses and storage facilities situated in the approved Pest Free Areas for *Ceratitis malgassa* and *Bactrocera dorsalis* in accordance to ISPM 4.

2.2 Phytosanitary registration list shall contain the following details:

2.2.1 Name and registration number/code of each production site
2.2.2 List of the pesticide/fungicide/bactericide used in each production site as part of its Integrated Pest Management program
2.2.3 Name and registration number/code of each pack house
2.2.4 Name and registration number/code of each storage facility.
2.2.5 Name of province

2.3 A list of the registered facilities that have been inspected and approved by the NPPO of Madagascar for export of litchi to South Africa, shall be made available to DAFF annually for consideration at least four weeks prior to the departure of the first consignment. DAFF shall assess and approve the list and update it on the DAFF website and notify the NPPO of Madagascar as soon as possible.

3. Pre- harvest pest management program and general surveillance

3.1. The NPPO of Madagascar shall be responsible for inspection before approval of production sites, pack house and storage facilities.

3.2. The NPPO of Madagascar shall through inspection and continuous surveillance programs ensure that the production sites are free from *Ceratitis malgassa* and *Bactrocera dorsalis*. Surveillance records shall be made available for review upon request by DAFF.

3.3. Should *Ceratitis malgassa* and/or *Bactrocera dorsalis* be detected in any registered production site, the production site shall be rejected for the rest of that export season for South Africa.

3.4. Monitoring of pests shall be conducted regularly in the registered production sites by the NPPO of Madagascar. Should new potential quarantine pests be detected in association with litchi, the NPPO of Madagascar shall immediately notify DAFF for appropriate action to be taken. DAFF shall then notify NPPO of Madagascar of any phytosanitary measures to be implemented and subsequent changes to the quarantine pest list and phytosanitary import requirements.

3.5. Pest control, inspection and other relevant records and information shall be made available for review upon request by DAFF.

3.6. NPPO of Madagascar shall ensure that the producers apply only authorised preventative measures (Integrated Pest Management).

3.7. Pre-harvest measures for *Ceratitis malgassa* and *Bactrocera dorsalis* shall include the following: pest free production sites, orchard sanitation and area wide management:

3.7.1. Pest free areas, places and sites of production.

3.7.2. Importation from areas free from *Ceratitis malgassa* and *Bactrocera dorsalis* is allowed based on surveillance records of at least 100 days with zero detections up to the time of harvest from each registered production site and from surveillance records in a radius not less than 2km surrounding each production site. If any specimens of *Ceratitis malgassa* and/or *Bactrocera dorsalis* are detected in surveillance traps during harvesting all production sites within a 2km radius will be suspended for the remainder of the season.

3.7.3. In areas where *Ceratitis malgassa* and/or *Bactrocera dorsalis* has been detected during the previous production season comprehensive control programs need to be implemented which comprise of sanitation and area wide chemical control.

3.7.4. No fruit shall be allowed to be exported after the detection of *Ceratitis malgassa* and/or *Bactrocera dorsalis* in surveillance traps on any production site. NPPO of Madagascar shall notify DAFF within 4 business days when detections of *Ceratitis malgassa* and/or *Bactrocera dorsalis* result in a change to the pest free status of any of the registered production sites.

3.7.5. NPPO of Madagascar will work collaboratively with DAFF to ensure that appropriate measures are implemented to mitigate the risk, or that the pest free status of the production site is reinstated before exports from that production site may resume.

3.8. Orchard sanitation

3.8.1. Growers shall remove over-ripe and fallen fruit from fields continuously to minimize *Ceratitis malgassa* and/or *Bactrocera dorsalis* egg laying and larval development. Any fruit remaining on plants after harvest shall be removed. The removed fruit shall be placed in a durable plastic bag, sealed, and solarised or buried at least 50 cm deep.

3.8.2. Growers shall remove unmanaged alternative host plant plantings near production sites in order to suppress *Ceratitis malgassa* and/or *Bactrocera dorsalis* populations.

3.9. Area-wide management of *Ceratitis malgassa* and *Bactrocera dorsalis*.

3.9.1. Management practices carried out over a wide area are essential. Detections of *Ceratitis malgassa* and/or *Bactrocera dorsalis* in previously known infested areas from 30 days before harvest will necessitate a chemical control program additional to the sanitation programme and normal bait spray programs. Every land user within a radius of 2km from where *Ceratitis malgassa* and/or *Bactrocera dorsalis* has been detected will have to follow a chemical control program on all host plants in the area. Chemical control should also be extended to areas with scattered fruit trees, abandoned orchards and private gardens. Chemical control is also required to protect fruit from ovipositing females of *Ceratitis malgassa* and/or *Bactrocera dorsalis* during ripening and throughout the harvest period.

3.9.2. Pack houses shall separate fruit for export to South Africa from over-ripe fruit to minimize egg laying and larval development. Pack houses shall regularly remove bins with rejected fruit that may have overripe, damaged fruit which may serve as oviposition sites for *Ceratitis malgassa* and/or *Bactrocera dorsalis*.

3.9.3. At least two surveillance traps shall be placed within each pack house during the whole period of packing. No fruit will be allowed to be exported from a packhouse where *Ceratitis malgassa* and/or *Bactrocera dorsalis* has been detected without a post-harvest treatment

4. Post-harvest measures

4.1. Litchi shall be appropriately inspected, packed, stored and transported, so as to guard against contamination with quarantine pests of concern for South Africa.

4.2. Rejected fruit shall be removed from the packing area at the end of each day.

4.3. Should any quarantine pest of concern (as listed in Annex 1) be detected, the consignment shall be rejected for export to South Africa.

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

4.5. Only mature and symptomless fruit shall be packed for export to South Africa.

4.7. The packing materials for litchis destined for South Africa shall be new and clean cardboard boxes/cartons.

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

4.9. Should wood packaging material be used, it shall comply with ISPM 15.

4.10. Packed litchi and packaging are to be protected from pest contamination during and after packing, during storage and during movement between locations (e.g. packhouse to cool storage/depot, to inspection point, to export point).

4.11. Litchi for export to South Africa that was inspected and certified by the NPPO of Madagascar must be maintained in secure conditions that will prevent mixing with fruit for export to other destinations or the domestic market and kept in secure storage until export.

5. Labeling

Each carton (box) of *Litchi* spp. shall be marked in English with correct and accurate information as indicated in Annex 3.

6. Phytosanitary certification

6.1. An import permit is required in terms of the Agricultural Pests Act, 1983 (Act No. 36 of 1983).

6.2. Upon completion of sampling and inspection, a Phytosanitary Certificate shall be issued by the NPPO of Madagascar 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 litchis that meet these phytosanitary requirements.

6.3. Prior to shipment of the first consignment of each season the NPPO of Madagascar shall send void sample Phytosanitary Certificate to DAFF.

7. Phytosanitary inspection on arrival

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

7.2. Any consignment with certification that does not conform to specifications as set out in this phytosanitary import requirements shall be rejected.

7.3. A representative sample shall be drawn and inspected for quarantine pests and suspicious fruit shall be dissected to determine the status of infestation. Should pests or symptoms be found, the samples shall be sent for laboratory identification, and the consignment shall be detained pending the laboratory results. Should any listed quarantine pests in Annex 1 be detected, the consignment shall be rejected, and DAFF shall notify the NPPO of Madagascar

of such interception immediately.

7.4. The detection of any quarantine pest not listed in Annex 1 shall result in a review of these phytosanitary import requirements to ensure that phytosanitary measures provide the appropriate level of phytosanitary protection for South Africa.

7.5. Should any potential quarantine pest that has not been categorized be detected on litchis from Madagascar, it shall require assessment to determine its quarantine status and whether phytosanitary action is required. The detection of any potential quarantine pest may result in a review of trade to ensure that phytosanitary measures provide the appropriate level of phytosanitary protection for South Africa.

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

APPENDIX 1: QUARANTINE PESTS LIST FOR *LITCHI SPP*. FRUIT FOR SOUTH AFRICA NOT OCCURING IN MADAGASCAR

FUNGI

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

INSECTS

Abgrallaspis cyanophylii [Diaspididae]
Adoxophyes orana [Tortricidae]
Adoxophyes templana [Tortricidae]
Amblypelta lutescens [Coreidae]
Amblypelta nitida [Coreidae]
Anoplophora chinensis [Cerambycidae]
Bactrocera aquilonis [Tephritidae]
Bactrocera cucurbitae [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 (Walker) [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]
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 litchi [Pseudococcidae]
Popillia mutans [Scarabaeidae]
Popillia quadriguttata [Scarabaeidae]
Protaetia fusca [Scarabaeidae]
Protaetia nitididorsis [Scarabaeidae]
Pseudococcus cryptus [Pseudococcidae]
Pseudococcus jackbeardsleyi [Pseudococcidae]
Pyroderces dendrophaga [Cosmopteridgidae]
Scirtothrips dorsalis [Thripidae]
Spodoptera litura [Noctuidae]
Tessaratoma javanica [Pentatomidae
Tessaratoma papillosa [Pentatomidae]
Thysanofiorinia nephelii [Diaspididae]
Tirathaba rufivena [Pyralidae]

MITES

Aceria litchii [Eriophyidae]

Oligonychus yorthesi [Tetranychidae]

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

FUNGI

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

INSECTS

Abgrallaspis cyanophylii [Diaspididae]
Adoxophyes orana [Tortricidae]
Adoxophyes templana [Tortricidae]
Amblypelta lutescens [Coreidae]
Amblypelta nitida [Coreidae]
Anoplophora chinensis [Cerambycidae]
Bactrocera aquilonis [Tephritidae]
Bactrocera cucurbitae [Tephritidae]
Bactrocera dorsalis [Tephritidae]
Bactrocera jarvisi [Tephritidae]
Bactrocera tryoni [Tephritidae]
Carpophilus mutilatus [Nitidulidae]
Carpophilus obsoletus [Nitidulidae]
Cateremna quadriguttella [Pyralidae]
Ceratitis malgassa [Tephritidae]
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 (Walker) [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 [Hemiptera: Diaspididae]
Scirtothrips dorsalis [Thripidae]
Spodoptera litura [Noctuidae]
Tessaratoma javanica [Pentatomidae
Tessaratoma papillosa [Pentatomidae]

Thysanofiorinia nephelii [Diaspididae]
Tirathaba rufivena [Pyralidae]

MITES

Aceria litchii [Eriophyidae]
Oligonychus yorthesi [Tetranychidae]

ANNEX 2: INSPECTION PROCEDURE

1. Organisms for inspection:

Planococcus lilacinus [Pseudococcidae]
Planococcus minor [Pseudococcidae]
Rutherfordia major [Hemiptera: Diaspididae]
Lopholeucaspis cockerelli [Diaspididae]

2. Principle of inspection procedure

The principle of inspection according to a specific rate for fruit must be based on a sample of 143 packing units for a consignment of 2000 packing units or less. The inspection for consignments with more than 2000 packing units must be based on 150 packing units. This will provide for a 95% confidence level of detecting packing units with infested fruit if the infestation rate is 2% or higher.

3. Method

3.1 Calculating the sampling interval:

Determine the number of packing units in the consignment intended for export. Divide the number of packing units by 143 or 150 (as determined in point 2). The quotient will be the sampling interval.

3.2 Determining the first packing unit to be inspected:

Randomly select a number from 1 to 13. To this number, add the quotient calculated in point 3.1. This will be the number of first packing unit to be inspected.

3.3 Determining subsequent packing units for inspection:

Add the sampling interval, calculated in point 3.1, to the number of the first packing unit, calculated in point 3.2, to obtain the number of the second packing unit. Determine the number of the third packing unit by adding the number of the second packing unit to the sampling interval. Repeat until the process has accounted for 143 (or 150) packing units.

3.4 Example for 2 000 packing units:

2 000 packing units divided by 150 = 13 (13, or the quotient, is the sampling interval).

First packing unit to be inspected: select any number from 1 to 13: e.g. 9.
Second packing unit to be inspected: 9 + 13 = 22
Third packing unit to be inspected: 22 + 13 = 35, etc.

. **4** All fruit from the drawn sample (143 or 150 packing units) shall be inspected and a 5% sample shall be drawn from each packing unit and suspect fruit dissected to determine the status of infestation.

ANNEX 3: 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