agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

FINAL PHYTOSANITARY WORKPLAN FOR THE IMPORTATION OF *MALUS* SPP. (APPLES) FRESH FRUIT FROM THE NETHERLANDS TO SOUTH AFRICA

In order to safely export Apples (*Malus* spp.) from the Netherlands to the Republic of South Africa (RSA), by guaranteeing that fruit will be free of pests listed in Annex 1 based on a systems approach, the Netherlands Food and Consumer Product Safety Authority (hereinafter referred to as NVWA) 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:

ARTICLE 1

REGISTRATION AND APPROVAL

1. Apples (*Malus* spp.) for export to South Africa shall originate from production sites, pack houses and storage facilities registered annually by NVWA and jointly approved by DAFF and NVWA.

2. A list/database of the registered facilities that have been inspected and approved by NVWA for the export of Apples to South Africa must contain the following details:

2.1. Name and registration number of each production site
2.2. Name and registration number of each pack house
2.3. Name and registration number of each storage facility.

3. A list/database of the registered facilities that have been inspected and approved by NVWA for export of Apples 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 will assess the list and the approved facilities will be updated on DAFF website and immediately notify NVWA.

4. Production sites, packing facilities and storage facilities shall comply with production and packaging standards (e.g. Integrated Production, GLOBALGAP, UNE 155000). NVWA shall ensure that *Malus* spp. fresh fruit for export to South Africa originate from production sites that follow these production

standards and comply with this phytosanitary workplan.

ARTICLE 2

PRE-HARVEST PEST MANAGEMENT PROGRAM AND GENERAL SURVEILLANCE

1. NVWA shall be responsible for inspection before approval of production sites, pack house and storage facilities.

2. NVWA shall through inspection and continuous surveillance programs ensure that the production sites are visually free from *Candidatus phytoplasma mali, Erwinia amylovora, Monilinia polystroma, Monilinia fructigena, Neonectria ditissima, Schizothyrium pomi* and *Pezicula malicorticis*.

3. If visually pest free production sites cannot be established, NVWA will take appropriate equivalent quarantine measures in compliance with international standards to ensure that fruits to be exported to South Africa are free from all pests mentioned here above, including chemical treatments and hygiene measures (Annex 3)

4. NVWA shall ensure that growers will implement pest monitoring and Integrated Pest Management. NVWA will inform growers about the list of pests of concern (Annex 1). Upon request pest monitoring and control records/data will be made available to DAFF.

5. During the period of the growing season, monitoring of pests shall be conducted regularly in the registered production sites by the growers at a frequency of once every two weeks. The targets of monitoring will include leaves, stems, flowers and fruits. The monitoring and control records are supervised by NVWA. In case of visual signs of the pests of concern immediate corrective measures are taken. NVWA takes the final decision on in- or exclusion of the production site.

6. Prior to the start of the new growing season, sanitation measures will be taken in the orchard like destruction of dropped fruit.

7. Should any pest listed in Addendum 1 (except those listed in Annex 1) or any new potential quarantine pests be detected in association with *Malus* spp., NVWA shall immediately notify DAFF and shall inform DAFF of any phytosanitary measure implemented. DAFF will notify NVWA of subsequent changes to the quarantine pest list and phytosanitary import requirements.

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

9. NVWA shall ensure that the producers apply only approved preventative measures (Integrated Pest Management).

ARTICLE 3

POST-HARVEST MEASURES

1. Only mature symptomless fruit (free from *Erwinia amylovora*) sourced from production sites that meet the export requirements set out in this phytosanitary workplan shall be delivered to the storage and packing facilities. Fruit destined for South Africa shall not be mixed with fruit destined for other markets in pack houses or storage facilities.

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

3. During the packing period for export to South Africa, no fruit for the domestic market is to be packed at the same packing line. Rejected host material must be removed from the packing area at the end of each day.

4. *Malus* spp. fresh fruit must be appropriately cleaned, inspected, packed, stored and transported, so as to guard against contamination with quarantine pests of concern to South Africa.

5. Post-harvest inspection will be conducted prior to export according to the following procedure:

5.1. Sampling procedure for export inspection of fruit and vegetables in the Netherlands (Annex 4).

5.2. Should any quarantine pests of concern as listed in Article 2.2 be detected during post harvest inspection, the consignment/lot shall be rejected for export to South Africa and the production site shall be suspended for the rest of the export season.

5.3. Should any other quarantine pest of concern as listed in Annex 1 be detected, the lot shall be rejected for export to South Africa.

5.4. Should any other quarantine pests of concern as listed in Addendum 1, not mentioned in Annex 1 be detected during post harvest inspection, the consignment/lot shall be rejected for export to South Africa and the

production site shall then be suspended while an investigation is carried out by NVWA.

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

7. The registered pack house and storage facility shall be clean and maintained free of pests, soil, plant debris and safeguarded and equipped to avoid fruit contamination.

8. The packing materials for *Malus* spp. fresh fruit destined for South Africa shall be new and clean cardboard boxes/cartons.

9. No packing material of plant origin, including straw, shall be used.

10. Wood packaging materials that are used, shall comply with the requirements of ISPM 15: Regulation of wood packaging material in international trade (FAO, 2009).

ARTICLE 4

LABELING

1. Each carton (box) of *Malus* spp. shall be marked in English with correct and accurate information as indicated in Annex 2.

ARTICLE 5

PHYTOSANITARY CERTIFICATION

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

2. Upon completion of fruit sampling and inspection, a phytosanitary certificate shall be issued by NVWA within 14 days prior to shipment. A phytosanitary certificate shall only be issued for fruit that meet the requirements of this phytosanitary workplan. Entry of consignments into South Africa shall be subject to the availability of the original phytosanitary certificate.

3. NVWA shall provide DAFF with a model of their phytosanitary certificate for confirmation and record keeping.

4. Each consignment of *Malus* spp. fruit to be exported to South Africa must be accompanied by a phytosanitary certificate endorsed as follows:

4.1. **Additional Declarations**

4.1.1. The fruit in this consignment complies with all the requirements of the Phytosanitary Workplan for the Importation of Apples (*Malus* spp.) agreed upon between DAFF and NVWA and is free from pests listed in Annex 1.

ARTICLE 6

PHYTOSANITARY INSPECTION ON ARRIVAL

1. Once a shipment of *Malus* spp. fresh fruit arrives at the designated port of entry, DAFF shall examine the consignment, relevant documents and markings.

2. Any consignment with certification that does not conform to the specifications set out in this phytosanitary workplan shall be rejected.

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 Addendum 1 and suspect fruit shall be dissected to determine the status of infestation.

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. DAFF shall notify NVWA of such interception immediately.

5. Should any of the quarantine pests in Annex 1 be detected on arrival, the consignment shall be sent back or destroyed and DAFF shall immediately notify NVWA in accordance with the notification procedures outlined in ISPM 13: Guidelines for the notification of non-compliance and emergency action (FAO, 2001). The production site shall then be suspended while an investigation is carried out by NVWA. DAFF and NVWA shall consult and implement corrective measures as deemed necessary. Fruit from the same production site certified for South Africa prior to the date of suspension and which are already at sea 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 1. Should any quarantine pests of concern to South Africa be detected, the consignment/lot shall be sent back or destroyed.

6. Should any pest be detected on *Malus* spp. from Netherlands that has not been categorized, 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 this phytosanitary workplan to ensure that phytosanitary measures provide appropriate level of phytosanitary protection for South Africa.

7. DAFF shall inspect up to 100% of the shipments and suspend any production site at any time should pests of quarantine concern be detected or should other phytosanitary import requirements not be met. DAFF will immediately advise NVWA of any pest interceptions and other instances of non-compliance with any condition stipulated in this phytosanitary workplan.

8. In case of non-compliance with this phytosanitary workplan the importer shall be responsible for all costs relating to disposal, removal or rerouting, including costs incurred by DAFF to monitor the action taken.

ARTICLE 7

VISIT BY DAFF

1. As part of initial market access, DAFF shall send two quarantine experts to the relevant *Malus* spp. producing areas in the Netherlands to review the production practices and the cost shall be covered by the Netherlands.

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

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

ARTICLE 8

RE-INSTATEMENT OF PRODUCTION SITES PREVIOUSLY REJECTED OR SUSPENDED FOR EXPORT TO SOUTH AFRICA

1. A production site previously rejected or suspended for export to South Africa shall only be re-instated if detailed corrective measures that comply with the requirements set out in this phytosanitary workplan are provided to DAFF.

2. NVWA shall monitor and approve the reinstatement of the rejected or suspended production site and provide the list and recommendations to DAFF.

3. DAFF shall assess and approve the list of the reinstated production sites provided, update it on the DAFF website and notify NVWA as soon as possible.

ARTICLE 9

IMPLEMENTATION AND DISPUTE SETTLEMENT

1. NVWA and DAFF agree to make every effort to settle any dispute arising from the interpretation or implementation of this phytosanitary workplan through bilateral consultation or negotiation.

2. This phytosanitary workplan is subject to review, revision and amendment as necessary.

ANNEX 1: QUARANTINE PESTS OF CONCERN TO SOUTH AFRICA OCCURRING ON *MALUS* SPP. (APPLES) IN THE NETHERLANDS

Mites:

Aculus schlechtendali

Insects:

Adoxophyes orana
Aphis pomi
Archips podana
Archips rosana
Byturus tomentosus
Diaspidiotus ostreaeformis
Dysaphis plantaginea
Drosophila suzukii
Grapholita funebrana
Hoplocampa testudinea
Leucoptera malifoliella
Mamestra brassicae
Melolontha melolontha
Operophtera brumata
Orthosia cerasi
Ostrina nubilalus
Pandemis heparana
Phyllonorycter blancardella
Spilonota occellana
Taeiothrips inconsequens
Xestia c-nigrum

Fungi:

Pezicula malicorticis
Monilinia fructigena
Monilinia polystroma
Neonectria ditissima
Schizothyrium pomi

Bacteria:

Erwinia amylovora

Phytoplasma:

Candidatus Phytoplasma mali

ANNEX 2: 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**

ANNEX 3: SYSTEMS APPROACH FOR *MONILINIA* SPP.

The systems approach to mitigate the risk of infection with *Monilinia* spp. and other harmful organisms includes the following elements:

- Use of certified rootstocks and planting material
- Pest and Disease management
- Cultural measures
- Pre harvest treatments
- Measures during harvest
- Post harvest measures
- Export inspection and certification

All together, the different measures shall offer an optimal guarantee that the apple fruit is free of symptoms of *Monilinia* spp., which will minimize the risk of introduction of these pathogens in South Africa. Hereinafter, the elements are further described.

1. Use of certified propagation material

- Growers shall make use of certified planting material, when starting an orchard. The planting material shall be developed from a selection of young plants which have been tested for viruses and which have been further propagated under official control by Naktuinbouw.

- Official control on the planting material (scions and rootstocks) is obliged under the EU plant passport system, making it impossible to trade apple trees without official control. Moreover, the EU directive on the marketing of fruit plant propagation material and fruit plants intended for fruit production (2008/90/EC) gives specific guidance to the certification of fruit trees and includes a list of harmful organisms that should be absent. The implementing directive 2014/98/EU inludes details on the requirements that are valid for the certification of fruit trees. Usually, an orchard is replanted in 10-20 years.

2. **General Pest and Disease management** [Not specific applied for *Monilinia* spp., but for all pests]

- During the growing season the protection of the crop against pests and diseases is one of the most important tasks undertaken by fruit growers. Growers estimate, based on experiences in the previous year, weather conditions and observations in the orchard, which treatments are needed.
- Integrated pest management (IPM) is an effective and environment friendly approach to pest management that relies on a combination of common-sense practices and the use of chemicals. IPM programs use current, comprehensive information on the life cycles of pests and diseases and their interaction with the environment. This information, in combination with available pest and disease control methods, is used to manage pest and disease damage by the most economical means, and with the least possible hazard to people and the environment.
- All fruit production companies in the Netherlands shall be Global GAP certified, thus complying with requirements related to food safety, sustainability, hygiene and good agricultural practice. For example to use carefully and select fertilizers and plant protection products following the guidelines in their use and pre-harvest intervals.
- The growers shall be assisted by certified consultants and/or advisory services about fertilizing, cultivation techniques, plant protection, harmful organisms etc.
- Growers shall use crop protection chemicals that are officially registered and legally allowed to be used. The Board for the Authorisation of Plant Protection Products and Biocides (Ctgb) evaluates their effects and risks, focussing specifically on efficacy, environmental effects, effects on humans and physicochemical properties. All growers shall be required, through EU legislation, to have an accurate registration of the purchasing, inventory and usage of the plant protection products. This shall be regularly checked during GLOBALGAP audits by the NVWA.

3. **Cultural measures and pre harvest treatments**

- Throughout the year, monitoring of pests in the orchards shall be carried out by the growers, assisted by certified consultants and/or advisory services.
- During this monitoring, infected twigs and fruits shall be removed from the trees.

- Green pruning to form open trees and orchards with good air movement shall only be applied in old orchards.
- Chemical control shall be applied several times during the growing season, including multiple fungicide sprays against *Monilinia* spp.
- Fungicides shall be applied shortly before harvest with the last application not more than 10 days before harvest.

4. Measures during harvest

- The grower shall conduct a final meticulous inspection of the orchards during the last period before harvest (the main infection period), to remove fruit infected with *Monilinia* spp.
- The grower shall select and train the harvests staff on good harvesting practice and hygiene, to recognize and remove damaged/infected fruits caused by *Monilinia* spp. and to prevent damaging, bruising and infecting the fruits.

5. Post harvest measures

- Fruit growers shall deliver their products in (wooden or plastic) bulk bins to cold storage warehouses or packing houses with optimum storage conditions/temperatures.
- In case of long term storage (all varieties) this shall be done in climate controlled storehouses at regular atmosphere or at Ultra Low Oxygen (ULO) condition at a temperature of maximum 2^0C **OR** in case of long term storage of Kanzi variety, this shall be done in climate controlled storehouses at regular atmosphere or at ULO condition at a temperature of maximum 4^0C and a mandatory post harvest fungicide shall be applied prior to packing and shipping.
- During storage period, the fruit shall be regularly checked on the quality of the product with a focus on storage rot like *Monilinia* spp.
- The handling and packaging process starts by taking out the fruit from the special conditions and increase of the fruit temperature to approximately 6^oC.
- The fruit shall be transported from storage unit to grading equipment by using a water transport system, to minimize risk of bruising. The fresh potable water also helps to remove leafs and other plant debris on the fruit on a smooth way.

- The clean, washed fruit shall be mechanically graded and sorted on quality (external and internal) and size.
- The trained staff shall continuously check the quality of the fruit during sorting and remove fruit infected with *Monilinia* spp.
- The fruit shall be packed prior to export in new packing material and will be stored in climate rooms until the moment of export.
- When the fruit is ready for export, a final quality control and phytosanitary inspection shall be conducted by the NVWA.
- The fruit shall be transported in cooled reefer containers.

6. Export inspection and certification

- Phytosanitary export inspection shall be implemented according to Annex 4 (Sampling procedure for export inspection of fruit and vegetable in the Netherlands).
- During this inspection the apples shall be checked visually for both phytosanitary requirements of South Africa and for general quality aspects.
- In case of the finding of symptoms of quarantine pests, including fruit rot symptoms like *Monilinia* spp., the lot shall be rejected. A zero tolerance shall be applied on the symptoms.
- The sample size shall be based on Annex 4.

ANNEX 4: Sampling Procedure for Export Inspection of Fruit and Vegetables in the Netherlands

Lots of the specified products are subjected to 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. Every single piece of fruit is inspected. Regardless the size of the lot, a total number of 6 boxes will be selected randomly and all fruit in the box will be inspected individually. The total number of pieces of fruit will be 600.

1 package unit = about 15 kg = about 100 pieces of fruit

ADDENDUM 1: NATIONAL QUARANTINE PEST LIST OF *MALUS* SPP. (APPLES) FRESH FRUIT FOR SOUTH AFRICA

Mites:

Aculus schlechtendali
Amphitetranychus viennensis
Bryobia repensi
Cenopalpus pulcher
Eotetranychus carpini
Eotetranychus pruni
Eotetranychus sexmaculatus
Eotetranychus uncatus
Eotetranychus willamettei
Tetranychus canadiensis
Tetranychus mcdanieli

Insects
Acrosternum hilare
Adoxophyes orana
Ametastegia glabrata
Anarsia lineatella
Anastrepha fraterculus
Anastrepha ludens
Anastrepha obliqua
Anastrepha serpentina
Anastrepha suspensa
Anthonomus quadrigibbus
Aphis pomi
Apocheima cinerarium
Archips argyrospilus
Archips crataeganus
Archips fuscocupreanus
Archips podana
Archips rosana
Archips xylosteanus
Argyresthia assimilis
Argyresthia conjugella
Argyrotaenia citrana

Argyrotaenia ljungiana
Bactrocera aquilonis
Bactrocera dorsalis
Bactrocera jarvis
Bactrocera neohumeralis
Bactrocera tryoni
Bactrocera zonata
Blastobasis decolorella
Byturus tomentosus
Carpophilus humeralis
Carposina sasakii
Ceroplastes ceriferus
Ceroplastes floridensis
Choristoneura rosaceana
Chymomyza amoena
Cnephasia jactatana
Conogethes punctiferalis
Conotrachelus nenuphar
Cotinis nitida
Ctenopseustis obliquana
Diaspidiotus ostreaeformis
Drosophila immigrans
Drosophila lativittata
Drosophila suzukii
Dysaphis plantaginea
Empoasca fabae
Epidiaspis leperii
Epiphyas postvittana
Eulecanium tiliae
Eurytoma schreineri
Euzophera pyriella
Grapholita funebrana
Grapholita inopinata
Grapholita janthinana
Grapholita lobarzewskii
Grapholita packardi
Grapholita prunivora
Halyomorpha halys
Halyomorpha mista
Haptoncus luteolus
Hoplocampa testudinea
Icerya aegyptiaca

Lacanobia oleracea
Leucoptera malifoliella
Lopholeucaspis japonica
Maconellicoccus hirsutus
Mamestra brassicae
Melolontha melolontha
Metcalfa pruinosa
Naupactus xanthographus
Operophtera brumata
Orthosia cerasi
Ostrinia nubilalis
Pammene rhediella
Pandemis cerasana
Pandemis heparana
Parlatoria crypta
Parlatoria oleae
Parlatoria yanyuanensis
Parthenolecanium corni
Peridroma saucia
Phenacoccus aceris
Phyllonorycter blancardella
Phyllonorycter crataegella
Phyllonorycter cydoniella
Planotortrix excessana
Platynota flavedana
Platynota stultana
Popillia japonica
Proeulia auraria
Proeulia chrysopteris
Pseudococcus comstocki
Pseudococcus maritimus
Pterochloroides persicae
Retithrips syriacus
Rhagoletis indifference
Rhagoletis pomonella
Rhagoletis tabellaria
Rhynchites auratus
Rhynchites bacchus
Rhynchites heros
Sphaerolecanium prunastri
Spilonota albicana
Spilonota occellana

Spodoptera frugiperda
Spodoptera litura
Syndemis musculana
Taeniothrips inconsequens
Thrips imaginis
Xestia c-nigrum

Fungi:

Gymnosporangium clavipes
Gymnosporangium juniperi-virginianae
Gymnosporangium libocedri
Monilinia polystroma
Monilinia fructigena
Monilinia fructicola
Mucor piriformis
Neonectria ditissima
Phyllosticta solitaria
Pezicula malicorticis
Schizothyrium pomi

Bacteria:

Erwinia amylovora
Pseudomonas syringae pv. *papulans*

Phytoplasma:

Candidatus phytoplasma mali
Peach rosette phytoplasma

Viruses:

Tomato ringspot virus
Cherry rasp leaf virus