

Import Health Standard
Commodity Sub-class: Fresh Fruit/Vegetables
Sweet Corn, *Zea mays*
from South Africa

Issued pursuant to Section 22 of the Biosecurity Act 1993
Date Issued: 3 November 1997

Amendments

1. 7 September 1998

The status of *Cochliobolus carbonum* has changed from Quarantine: Risk group 1 to non-regulated non-quarantine.

Import Health Standard
Commodity Sub-class: Fresh Fruit/Vegetables
Sweet Corn, *Zea mays*
from South Africa

Pursuant to Section 22 of the Biosecurity Act 1993
Date approved: 29 October 1997

1 NEW ZEALAND NATIONAL PLANT PROTECTION ORGANISATION

The New Zealand national plant protection organisation is the Ministry of Agriculture and as such, all communication should be addressed to:

Chief Plants Officer
Ministry of Agriculture
PO Box 2526
Wellington
NEW ZEALAND

Fax: 64-4-474 4240
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<http://www.maf.govt.nz>

2 GENERAL CONDITIONS FOR ALL PLANT PRODUCTS

All plants and plant products are **PROHIBITED** entry into New Zealand, unless an import health standard has been issued in accordance with Section 22 of the Biosecurity Act 1993. Should prohibited plants or plant products be intercepted by the New Zealand Ministry of Agriculture, the importer will be offered the option of reshipment or destruction of the consignment.

The national plant protection organisation of the exporting country is requested to inform the New Zealand Ministry of Agriculture of any change in its address.

The national plant protection organisation of the exporting country is required to inform the New Zealand Ministry of Agriculture of any newly recorded organisms which may infest/infect any commodity approved for export to New Zealand.

3 EXPLANATION OF PEST CATEGORIES

The New Zealand Ministry of Agriculture has a number of pest categories which are described below. Organisms (including weeds) associated with each commodity will appear on a separate pest list which will be attached to each import health standard as an Appendix.

The New Zealand Ministry of Agriculture has classified organisms into the following groups.

3.1 REGULATED ORGANISMS

Regulated organisms are divided up into five groups, based on the probability of introduction by a specified pathway and the economic/environmental impact(s), as follows:

3.1.1 Quarantine: Risk group 1 pests

Risk group 1 pests are those quarantine pests (FAO Glossary of Phytosanitary Terms, 1996) which on introduction into New Zealand could cause unacceptable economic impacts on the production of a commodity/commodities and/or the environment.

3.1.2 Quarantine: Risk group 2 pests

Risk group 2 pests are those quarantine pests which on introduction into New Zealand could cause a major disruption to market access (some importing countries require specific pre-export phytosanitary treatments) and/or significant economic impacts on the production of a particular commodity/commodities and/or the environment.

3.1.3 Quarantine: Risk group 3 pests

Risk group 3 pests (eg. economically significant species of fruit flies) are those quarantine pests which on entry into New Zealand would cause a major disruption to market access for a wide range of New Zealand commodities and/or have significant economic impacts on their production and/or the environment (some importing countries prohibit the entry of the host commodity). An official surveillance system is required for such pests in New Zealand.

3.1.4 Regulated non-quarantine pests

A regulated non-quarantine pest (denoted by "reg." on the pest list) is a pest whose presence in a consignment of plants for planting, affects the intended use of those plants with an economically unacceptable impact and is therefore regulated within the territory of the importing contracting party (Revised IPPC definition, Rome 1997). These pests would be under official control by the use of a Government operated or audited certification scheme.

3.1.5 Regulated non plant pests/unwanted organisms

Regulated non plant pests/unwanted organisms (including parasites and predators) are those organisms which, although not pests of plants or plant products, may be associated with plants or plant products in international trade, and may have an affect on human or animal health (eg. black widow spider) and thus fall under the jurisdiction of other New Zealand government departments. The categorisation of these organisms and their associated import restrictions will be applied in accordance with the requirements of the relevant departments.

3.1.6 Vectors of associated quarantine pests

In the context of this import health standard, vectors are those organisms which are able to transmit other quarantine pests into New Zealand. To prevent the transmission of vectored quarantine organisms to susceptible commodities in New Zealand, it is necessary to prevent the entry of their vectors. Vectors (denoted by "vect." on the pest list) will be categorised as risk group 1, even if they are present in New Zealand, unless they are risk group 2 pests in their own right. If the vectored organism is not present in the exporting country then the associated vector(s), if present in New Zealand, will be categorised as a non-regulated non-quarantine pest(s).

3.1.7 Vectored organisms

Vectored organisms (denoted by "VO" on the pest list) are those quarantine pests, that are able to enter New Zealand via a vector associated with the imported commodity.

3.1.8 Strains of pests

Where there is documented evidence that a pest associated with the imported commodity has a different host range, different pesticide resistance, vectors a different range of organisms, or is more virulent than that of the same species present in New Zealand, then the different strain

(denoted by "strain" on the pest list) of that pest will be categorised accordingly as a risk group 1 or 2 quarantine pest.

3.1.9 Unidentifiable organisms

Should identification of an organism not be possible within the required time frame, the organism will be categorised as a quarantine pest (either risk groups 1, 2, or 3) until such time as shown otherwise.

3.1.10 Unlisted organisms

Should an organism be intercepted that is not included on the pest list for that commodity, it will be categorised into the appropriate risk group and action taken accordingly.

3.2 NON-REGULATED ORGANISMS

3.2.1 Non-regulated non-quarantine pests

Non-regulated non-quarantine pests are either already present in New Zealand and are not under official control or, have no hosts present in New Zealand on which they could become established.

3.2.2 Non-regulated non plant pests/organisms

Non-regulated non plant pests/organisms are not pests of plants and are not of concern to the Ministry of Agriculture or any other New Zealand government department.

3.3 CONTAMINANTS (INCLUDING SOIL)

Consignments contaminated with soil, or other potential carriers of quarantine pests (eg. leaf litter) will not be permitted entry if the level of contamination is above the acceptable tolerance level.

4 APPLICATION OF PHYTOSANITARY MEASURES

A number of different phytosanitary measures may be applied to pests in each risk group, depending on the commodity and the type of pest. These measures include:

4.1 QUARANTINE: RISK GROUP 1 PESTS

Phytosanitary measures required for risk group 1 pests may include:

- inspection and phytosanitary certification of the consignment according to appropriate procedures by the national plant protection organisation of the exporting country,
- testing prior to export for quarantine pests which cannot be readily detected by inspection (eg. viruses on propagating material from accredited facilities), and verified by an additional declaration,
- inspection/testing of the consignment by the New Zealand Ministry of Agriculture prior

to biosecurity clearance, to ensure the specified pest tolerance has not been exceeded.

4.2 QUARANTINE: RISK GROUP 2 PESTS

Phyosanitary measures required for risk group 2 pests may include all the requirements for risk group 1 pests and may also require pre-export pest control activities to be undertaken by the contracting party, and confirmed by additional declarations to the phytosanitary certificate.

4.3 QUARANTINE: RISK GROUP 3 PESTS

Phyosanitary measures applied to risk group 3 pests may include all the requirements for risk group 1 pests plus:

- the application of a pre-export treatment which has been developed in accordance with an approved New Zealand Ministry of Agriculture standard,
- an official bilateral quarantine arrangement between the New Zealand Ministry of Agriculture and the South Africa national plant protection organisation which includes descriptions of each approved treatment system(s),
- specific additional declarations on the phytosanitary certificate.

4.4 REGULATED NON-QUARANTINE PESTS

Phyosanitary measures applied to regulated non-quarantine pests will generally be the same as for risk group 1 pests, or according to the contingencies implemented for that pest if detected in New Zealand.

4.5 NON-REGULATED NON-QUARANTINE PESTS

No phytosanitary measures are applied to non-regulated non-quarantine pests.

5 GENERAL CONDITIONS FOR FRESH FRUIT/VEGETABLES

Commodity sub-class: fresh fruit/vegetables includes fresh fruit and vegetables for consumption.

Only inert/synthetic material may be used for the protection, packaging and shipping materials of fresh fruit/vegetables.

All host material (fruit/vegetables) of fruit fly species (Diptera: Tephritidae) of economic significance shall only be imported under the terms of a bilateral quarantine arrangement (e.g. agreement, workplan) between the New Zealand Ministry of Agriculture's Chief Plants Officer and the head of the supply country's national plant protection organisation.

6 SPECIFIC CONDITIONS FOR SWEET CORN FROM SOUTH AFRICA

This import health standard covers the requirements for the entry of sweet corn (including babycorn), commodity sub-class: fresh fruit/vegetables from South Africa only. All sweetcorn imported under this standard must be physiologically immature so the kernels will not germinate.

6.1 PRE-EXPORT REQUIREMENTS

6.1.1 Inspection of the consignment

The New Zealand Ministry of Agriculture requires that the South Africa national plant protection organisation sample and inspect the consignment according to official procedures for all visually detectable quarantine pests (as specified by the New Zealand Ministry of Agriculture), with a 95% confidence level, that not more than 0.5% of the units in the consignment are infested (this equates to an acceptance level of zero units infested by quarantine pests in a sample size of 600 units).

6.1.2 Testing of the consignment

Testing of the consignment prior to export to New Zealand for quarantine pathogens which are not visually detectable is not generally required for fresh sweetcorn from South Africa.

6.1.3 Documentation

Bilateral quarantine arrangement: Not required.

Phytosanitary certificate: Required.

Import permit/Authorisation to import: Exempt under Gazette Notice: No. AG12, 13 July 1995.

6.1.4 Phytosanitary certification requirements

A completed phytosanitary certificate issued by the South Africa national plant protection organisation must accompany all sweetcorn, commodity sub-class: fresh fruit/vegetables exported to New Zealand.

Before an export phytosanitary certificate is to be issued, the South Africa national plant protection organisation must be satisfied that the following activities [or agreed equivalent activities] required by the New Zealand Ministry of Agriculture have been undertaken.

The sweetcorn has:

- been inspected in accordance with appropriate official procedures and found to be free of any visually detectable quarantine pests.

AND

- undergone appropriate pest control activities that are effective against *Physoderma maydis*.

OR

been sourced from an area free from *Physoderma maydis* as verified by an official detection survey.

AND

- been harvested when physiologically immature so the kernels will not germinate.

6.1.5 Additional declarations to the phytosanitary certificate

If satisfied that the pre-export activities have been undertaken, the South Africa national plant protection organisation must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The sweetcorn in this consignment has:

- been inspected in accordance with appropriate official procedures and found to be free of any visually detectable quarantine pests, as specified by the New Zealand Ministry of Agriculture,

AND

- undergone appropriate pest control activities that are effective against *Physoderma maydis*.

OR

been sourced from an area free from *Physoderma maydis*.

AND

- been harvested when physiologically immature so the kernels will not germinate."

6.2 TRANSIT REQUIREMENTS

The sweetcorn must be packed and shipped in a manner to prevent contamination by quarantine pests. The package should not be opened in transit.

Where a consignment enters another country (or countries) *en route* to New Zealand and it is either stored, split up or has its packaging changed while in that country (or countries), a "Re-export Certificate".

Where a consignment is held under bond, as a result of the need to change conveyances, and it is kept in the original shipping container, a "Re-export Certificate" is not required.

6.3 INSPECTION ON ARRIVAL

The New Zealand Ministry of Agriculture will check the accompanying documentation on arrival to confirm that the documentation reconciles with the actual consignment.

The New Zealand Ministry of Agriculture requires, with 95% confidence, that not more than 0.5% of the units (for sweetcorn, a unit is one cob) in a consignment are infested with visually detectable quarantine pests. To achieve this, the New Zealand Ministry of Agriculture will sample and inspect 600 units with an acceptance level of zero infested units (or equivalent), from the (homogeneous) lot.

6.4 BIOSECURITY/QUARANTINE DIRECTIVE

The commodity may be directed to a facility for further treatment if required.

6.5 TESTING FOR QUARANTINE PESTS

The New Zealand Ministry of Agriculture may, on the specific request of the Chief Plants Officer, test sweetcorn (commodity subclass: fresh fruit/vegetables) from South Africa for quarantine pests.

6.6 ACTIONS UNDERTAKEN ON THE INTERCEPTION/DETECTION OF ORGANISMS/CONTAMINANTS

If quarantine pests are intercepted on the commodity, or associated packaging, the following actions will be undertaken as appropriate:

6.6.1 Quarantine: Risk group 1 pests

If a risk group 1 pest is intercepted, the importer will be given the option of:-

- treatment (where possible) of the consignment,
- re-sorting (specific conditions apply) of the consignment,
- reshipment of the consignment,
- destruction of the consignment.

6.6.2 Quarantine: Risk group 2 pests

If a risk group 2 pest is intercepted, the importer will be given the option of:-

- treatment (where possible) at the discretion of the Chief Plants Officer and immediate feedback to the national plant protection organisation of the exporting country with a request for corrective action,
- reshipment of the consignment,
- destruction of the consignment.

6.6.3 Quarantine: Risk group 3 pests

Actions for the interception of a risk group 3 pest will include:-

- reshipment of the consignment OR destruction of the consignment,

AND

- the suspension of trade, until the cause of the non-compliance is investigated, identified and rectified. The appropriate actions may be audited by the New Zealand Ministry of Agriculture. Once the requirements of the New Zealand Ministry of Agriculture have been met to the satisfaction of the Chief Plants Officer, and supporting evidence is provided and verified by the South Africa national plant protection organisation, the trade suspension will be lifted.

6.6.4 Regulated non-quarantine pests

Actions for the interception/detection of regulated non-quarantine pests will be in accordance with the contingencies implemented for that pest if detected in New Zealand.

6.6.5 Regulated non plant pests/unwanted organisms

Actions for the interception/detection of regulated non plant pests/unwanted organisms will be in accordance with the actions required by the relevant government department.

6.6.6 Non-regulated non-quarantine pests

No action is undertaken on the interception of non-regulated non-quarantine pests.

6.6.7 Non-regulated non plant pests/organisms

No action is undertaken on the interception of non-regulated non plant pests/organisms.

6.6.8 Contaminants

Lots with more than 25 grams of soil per 600 unit sample shall be treated, reshipped or destroyed.

Interception of extraneous plant material (e.g. leaves, twigs) in the 600 unit sample will result in the lot being held until an assessment has been made in comparison with the risk of importing the part(s) of the plant species concerned.

6.7 BIOSECURITY CLEARANCE

If quarantine pests are not detected, or are successfully treated following interception/detection biosecurity clearance will be given.

6.8 FEEDBACK ON NON-COMPLIANCE

The South Africa national plant protection organisation will be informed by the New Zealand Ministry of Agriculture's Chief Plants Officer of the interception (and treatment) of any quarantine pests, "unlisted" organisms, or non-compliance with other phytosanitary requirements.

7 CONTINGENCIES FOLLOWING BIOSECURITY CLEARANCE

Should a quarantine pest be detected subsequent to biosecurity clearance, the New Zealand Ministry of Agriculture may implement a management programme (official control programme) in accordance with Part V of the Biosecurity Act 1993.

Appendix

Pest List
Commodity Sub-class: Fresh Fruit/Vegetables
Sweet Corn, *Zea mays*
from South Africa

REGULATED PESTS (actionable)

Quarantine: Risk group 3 pests

None

Quarantine: Risk group 2 pests

Fungus

Chytridiomycota

Blastocladales

Physodermataceae

Physoderma maydis

brown spot

Quarantine: Risk group 1 pests

Insect

Coleoptera

Coccinellidae

Epilachna similis

epilachna beetle

Curculionidae

Protostrophus amplicollis

ground weevil

Protostrophus barbifrons

ground weevil

Protostrophus hamaticollis

ground weevil

Protostrophus hirtiventris

ground weevil

Protostrophus perditor

ground weevil

Protostrophus spinicollis

ground weevil

Protostrophus sulcatifrons

weevil

Melyridae

Astylus atromaculatus

spotted maize beetle

Scarabaeidae

Adoretus cribosus

flower beetle

Tenebrionidae

Gonocephalum simplex

dusty surface weevil

Zophosis boei

surface beetle

Trogossitidae

Tenebroides mauritanicus

cadelle

Homoptera

Cicadellidae

Cicadulina mbila

maize leafhopper

Cicadulina mbila [vect.]

maize leafhopper

Delphacidae

Peregrinus maidis

small brown planthopper

Peregrinus maidis [vect.]

small brown planthopper

Lepidoptera

Noctuidae

<i>Agrotis biconica</i>	spiny cutworm
<i>Agrotis longidentifera</i>	brown cutworm
<i>Agrotis segetum</i>	turnip moth
<i>Agrotis subalba</i>	grey cutworm
<i>Busseola fusca</i>	maize stalk borer
<i>Sesamia calamistis</i>	pink stalk borer
<i>Spodoptera exempta</i>	African armyworm
<i>Spodoptera exigua</i>	lesser armyworm
Pyralidae	
<i>Chilo partellus</i>	spotted stalk borer
<i>Eldana saccharina</i>	sugarcane stalk borer

Fungus

Ascomycota

Dothideales

Botryosphaeriaceae

Botryosphaeria zae (anamorph
Macrophoma zae) grey ear rot

Leptosphaeriaceae

Leptosphaeria spp. yellow leaf blight

Mycosphaerellaceae

Mycosphaerella zae-maydis (anamorph
Phyllosticta maydis) leaf blight

Phaeosphaeriaceae

Phaeosphaeria spp. phaeosphaeria leaf spot

Basidiomycota: Teliomycetes

Uredinales

Pucciniaceae

Puccinia polysora southern corn rust

Basidiomycota: Ustomycetes

Ustilaginales

Ustilaginaceae

Ustilago maydis boil smut

Mitosporic Fungi (Coelomycetes)

Sphaeropsidales

Sphaerioidaceae

Diplodia macrospora dry rot of maize

Unknown Coelomycetes

Unknown Coelomycetes

Phaeocytostroma ambiguum basal stem blotch

Mitosporic Fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Bipolaris zeicola seedling blight

Cercospora zae-maydis grey leaf spot

Curvularia spp. curvularia leaf spot

Drechslera pedicellata root rot

Oomycota

Pythiales

Pythiaceae

Pythium aphanidermatum root and stalk rot

Pythium splendens seed rot

Sclerosporales

Sclerosporaceae

Peronosclerospora graminicola graminicola downy mildew

Peronosclerospora sorghi sorghum downy mildew

Virus

maize streak monogeminivirus [VO]

Regulated non-quarantine pests

None

Regulated non plant pests/unwanted organisms

None

NON-REGULATED PESTS (non-actionable)

Non-regulated non-quarantine pests

Insect

Coleoptera

Scarabaeidae

Heteronychus arator black beetle

Homoptera

Aphididae

Rhopalosiphum maidis corn leaf aphid

Lepidoptera

Noctuidae

Agrotis ipsilon black cutworm

Helicoverpa armigera corn earworm

Mite

Tetranychidae

Tetranychus urticae two spotted mite

Fungus

Ascomycota

Dothideales

Pleosporaceae

Cochliobolus heterostrophus (anamorph
Bipolaris maydis) southern leaf blight
Setosphaeria turcica (anamorph
Exserohilum turcicum) northern corn leaf
blight

Hypocreales

Hypocreaceae

Gibberella acuminata (anamorph
Fusarium acuminatum) root rot
Gibberella avenacea (anamorph *Fusarium*
avenaceum) fusarium rot
Gibberella fujikuroi (anamorph *Fusarium* ear rot
fujikuroi)
Gibberella fujikuroi var. *subglutinans* gibberella ear rot
(anamorph *Fusarium fujikuroi* var.
subglutinans)
Gibberella intricans (anamorph *Fusarium* root rot
equiseti)
Gibberella zae (anamorph *Fusarium*
graminearum) red ear rot
Nectria haematococca (anamorph fusarium fruit rot
Fusarium solani)

Leotiales

Sclerotiniaceae

Botryotinia fuckeliana (anamorph *Botrytis* ear rot
cinerea)

Sphaeriales

Unknown Sphaeriales

Khuskia oryzae (anamorph *Nigrospora* cob rot
oryzae)

Basidiomycota: Basidiomycetes

Ceratobasidiales

Ceratobasidiaceae

Thanatephorus cucumeris (anamorph
Rhizoctonia solani) web blight

Stereales

Atheliaceae

Athelia rolfsii (anamorph *Sclerotium* root rot, cob rot
rolfsii)

Basidiomycota: Teliomycetes

Uredinales

Pucciniaceae

Puccinia sorghi (anamorph *Aecidium* maize rust
oxalidis)

Basidiomycota: Ustomycetes

Ustilaginales

Ustilaginaceae

Sphacelotheca reiliana head smut

Mitosporic Fungi (Coelomycetes)

Melanconiliales

Melanconialiaceae

Colletotrichum graminicola anthracnose

Sphaeropsidales

Sphaeriodaceae

Diplodia maydis cob rot, stalk rot

Macrophomina phaseolina cob rot

Mitosporic Fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Alternaria alternata ear mold, leaf spot

Moniliaceae

Aspergillus flavus storage rot

Aspergillus niger black mould

Penicillium expansum blue mould

Trichoderma viride root, seed and stalk rot

Tuberculariales

Tuberculariaceae

Fusarium oxysporum root and stalk rot

Zygomycota: Zygomycetes

Mucorales

Mucoraceae

Rhizopus stolonifer fungal rot

Bacterium

Enterobacteriaceae

Erwinia chrysanthemi pv. *zear* bacterial soft rot

Non-regulated non plant pests/organisms

None