

行政院農業委員會動植物防疫檢疫局 函

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受文者：本局高雄分局

發文日期：中華民國109年7月2日

發文字號：防檢四字第1091494101號

速別：普通件

密等及解密條件或保密期限：

附件：如文1091494101-A1~A2

主旨：檢送紐西蘭公告修正輸入種苗健康標準（Import Health Standard 155.02.06: Importation of Nursery Stock）有關蟎類之一般檢疫處理規定，請惠轉知輸出業者配合辦理，請查照。

說明：

- 一、依據世界貿易組織109年6月8日G/SPS/N/NZL/631通知文件（如附件1）辦理。
- 二、紐西蘭經風險評估後全面修正輸入種苗健康標準有關蟎類之一般檢疫處理規定（Section 2.2.1.6 Import Health Standard 155.02.06: Importation of Nursery Stock），並自109年5月20日生效，相關內容摘述如下：
 - （一）原檢疫處理對象蟎類（Mites），修正為非滯育期（non-diapausing）之蟎類。
 - （二）檢疫處理可採輸出前處理，並由輸出國植物保護機關確認及加註相關資訊於輸出植物檢疫證明書，或在抵紐後於初級產業部認可之設施內進行處理。
 - （三）檢疫處理仍分為溴化甲烷燻蒸及化學藥劑處理等2種方式，惟作業方式依風險評估結果全面修正，相關內容可參考紐西蘭輸入種苗健康標準Section 2.2.1.6（如附件2，健康標準全文可至https://members.wto.org/crnattachments/2020/SPS/NZL/20_3576_00_e.pdf下載）。
 - （四）溴化甲烷燻蒸修正內容：由原先依據不同溫度範圍施以不同濃度溴化甲烷處理2小時，經參考ISPM第43號「使用燻蒸作為植物檢疫措施之要求」相關內容修正如下：
 - 1、溫度範圍改為處理過程中之最低溫度。

- 2、處理時間除2小時外，新增2.5小時及3小時等2種，並大幅增加起始處理濃度值。
- 3、新增處理過程中之溴化甲烷最低濃度值。
- 4、新增最低濃度時間累積值/作用劑量 (Minimum concentration-time product (CT)/ achieved dose (g·h/m³))

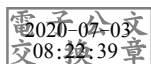
(五)化學藥劑處理修正內容：原規定係以阿巴汀(Abamectin)或結合2種不同作用機制之化學藥劑進行噴撒或浸灌，現修正如下：

- 1、噴灑至逕流點（須結合使用合適的界面活性劑），或在攪拌的狀態下進行浸灌，浸灌時間至少2分鐘，如植物表面殘留氣泡者，應延長至5分鐘。
- 2、化學藥劑分成單一藥劑使用（Option 1）或結合2種不同作用機制之化學藥劑使用（Option 2）2大類：
 - (1)單一藥劑：僅限賜滅芬（Spiromesifen）、密滅汀（Milbemectin）、芬普蟎（Fenpyroximate）及Bifenazate+Abamectin等4種，並規範其施用時之有效成分濃度及劑型，其中賜滅芬及Bifenazate+Abamectin需於第一次處理後7至10天進行第二次處理。
 - (2)結合2種不同作用機制之化學藥劑：分成僅限使用於非休眠期植物之Option 2A及休眠期及非休眠期皆可使用之Option 2B等2種組合方式如下，並規範其施用時之有效成分濃度及劑型：
 - 甲、Option 2A：主劑為依殺蟎（Etoxazole），並結合阿巴汀（Abamectin）或克凡派（Chlorfenapyr）擇一使用。
 - 乙、Option 2B：主劑為芬殺蟎（Fenazaquin），並結合亞醃蟎（Acequinocyl）或大克蟎（Dicofol）擇一使用。

三、查Bifenazate+Abamectin尚未登記為我國核准使用農藥，另大克蟎為我國禁用農藥，請依我國農藥使用規範選擇合適藥劑。

正本：本局基隆分局、本局新竹分局、本局臺中分局、本局高雄分局

副本：社團法人台灣種苗改進協會、社團法人台灣蘭花產銷發展協會、台灣區花卉輸出業同業公會、行政院農業委員會農業試驗所、本局植物防疫組、本局植物檢疫組





8 June 2020

(20-4062)

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Committee on Sanitary and Phytosanitary Measures

Original: English

NOTIFICATION

1. Notifying Member: <u>NEW ZEALAND</u> If applicable, name of local government involved:
2. Agency responsible: Ministry for Primary Industries
3. Products covered (provide tariff item number(s) as specified in national schedules deposited with the WTO; ICS numbers should be provided in addition, where applicable): Basic import requirements on "Importation of Nursery Stock" (alternative chemical treatment for plant feeding mites)
4. Regions or countries likely to be affected, to the extent relevant or practicable: ☒ All trading partners ☐ Specific regions or countries:
5. Title of the notified document: Import Health Standard 155.02.06: Importation of Nursery Stock . Language(s): English. Number of pages: 404 https://members.wto.org/crnattachments/2020/SPS/NZL/20_3576_00_e.pdf https://members.wto.org/crnattachments/2020/SPS/NZL/20_3576_01_e.pdf
6. Description of content: This standard describes the import specifications and entry conditions for nursery stock imported into New Zealand.
7. Objective and rationale: ☐ food safety, ☐ animal health, ☒ plant protection, ☐ protect humans from animal/plant pest or disease, ☐ protect territory from other damage from pests.
8. Is there a relevant international standard? If so, identify the standard: ☐ Codex Alimentarius Commission (e.g. title or serial number of Codex standard or related text): ☐ World Organization for Animal Health (OIE) (e.g. Terrestrial or Aquatic Animal Health Code, chapter number): ☒ International Plant Protection Convention (e.g. ISPM number): Various ISPMs as listed in the IHS: – ISPM 4: Requirements for the establishment of pest free areas – ISPM 5: Glossary of phytosanitary terms – ISPM 7: Phytosanitary certification system – ISPM 8: Determination of pest status in an area – ISPM 10: Requirements for the establishment of pest free places of production and pest free production sites – ISPM 12: Phytosanitary certificates – ISPM 23: Guidelines for Inspection – ISPM 24: Guidelines for the determination and recognition of equivalence of phytosanitary measures – ISPM 27. Diagnostic protocols for regulated pests. Rome, IPPC, FAO

- ISPM 36: Integrated measures for plants for planting. - ISPM 43: Requirements for the use of fumigation as a phytosanitary measure [] None Does this proposed regulation conform to the relevant international standard? [X] Yes [] No If no, describe, whenever possible, how and why it deviates from the international standard:
9. Other relevant documents and language(s) in which these are available: Risk management proposal "Review of chemical treatment to manage regulated plant mites on whole plants and cuttings - Section 2.2.1.6 Import Health Standard 155.02.06: Importation of Nursery Stock" (available in English)
10. Proposed date of adoption (dd/mm/yy): 27 February 2020 Proposed date of publication (dd/mm/yy): 20 May 2020
11. Proposed date of entry into force: [] Six months from date of publication, and/or (dd/mm/yy): 20 May 2020 [X] Trade facilitating measure
12. Final date for comments: [] Sixty days from the date of circulation of the notification and/or (dd/mm/yy): Agency or authority designated to handle comments: [X] National Notification Authority, [X] National Enquiry Point. Address, fax number and e-mail address (if available) of other body: Mrs Sally Jennings, Coordinator, SPS New Zealand PO Box 2526, Wellington, New Zealand Tel: +(644) 894 0431 Fax: +(644) 894 0733 E-mail: sps@mpi.govt.nz
13. Text(s) available from: [X] National Notification Authority, [X] National Enquiry Point. Address, fax number and e-mail address (if available) of other body: Mrs Sally Jennings, Coordinator, SPS New Zealand PO Box 2526, Wellington, New Zealand Tel: +(644) 894 0431 Fax: +(644) 894 0733 E-mail: sps@mpi.govt.nz

2. IMPORT SPECIFICATION AND ENTRY CONDITIONS

2.1 INSPECTION ON ARRIVAL AND MAXIMUM PEST LIMIT

A randomly drawn sample of 600 units, from each homogenous lot within in a consignment, shall be inspected on arrival. Where a lot is comprised of less than 600 units, 100% inspection is required.

Infestation by visually detectable quarantine pests on inspection at the border must not exceed the Maximum Pest Limit (MPL) which is currently set at 0.5%. To achieve a 95% level of confidence that the MPL will not be exceeded, no infested units are permitted in a randomly drawn sample of 600 units (i.e. acceptance number = 0).

2.2 ENTRY CONDITIONS

All imported nursery stock must comply with the following requirements:

a) **Basic Conditions** that apply to all nursery stock, as indicated in the Plants Biosecurity Index and outlined in Section 2.2.1 and 2.2.2.

AND

b) **Special Conditions** that apply to particular types of nursery stock, as indicated in the Plants Biosecurity Index and outlined in the **Schedule of Special Conditions**.

2.2.1 Basic Conditions

2.2.1.1 Types of Nursery Stock that may be imported

Nursery stock requiring only basic entry conditions may be imported in any of the following types, as:

- Cuttings (dormant and/or non-dormant)
- Whole Plants
- Dormant Bulbs and Tubers
- Tissue Culture (see section 2.2.2)

2.2.1.2 Import Permit

An import permit is required unless specified otherwise in section 2.2.2 or a schedule of special conditions. To apply for a permit, complete the Form "Application for Permit to Import Nursery Stock" available from the Permit Office or on MPI's website:

<http://www.mpi.govt.nz/importing/plants/nursery-stock/forms-and-templates/>

The completed form should be returned to the Permit Office who will ensure that the PEQ requirements can be met before issuing an import permit.

2.2.1.3 Labelling

Each type of plant in the consignment must be clearly identified with its scientific name (genus and species).

2.2.1.4 Cleanliness

Only inert/synthetic material may be used for the protection, packaging and shipping materials of the nursery stock. Consignments contaminated with soil shall be treated, reshipped or destroyed. The interception of other extraneous matter, where it cannot be readily removed, may result in reshipment or destruction of the consignment.

2.2.1.5 Phytosanitary Certificate

Consignments must be accompanied by a phytosanitary certificate certifying that the nursery stock has been inspected in the exporting country in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, and conforms with New Zealand's current import requirements. If visually detectable pests are found which are not listed in the import health standard, the certifying NPPO must establish their regulatory status prior to issuing the certificate. This information is available in MPI's "[Biosecurity Organisms Register for Imported Commodities](#)".

If a visually detectable pest is not listed in this register, the certifying NPPO must contact MPI (see section 1.1) to establish the regulatory status of the pest.

2.2.1.6. Pesticide treatments for whole plants and cuttings

(a) For whole plants the phytosanitary certificate must have the following additional declaration, unless stated otherwise in the “schedule of special conditions”:

"The plants were raised from seed/cuttings in soil-less rooting media in containers maintained out of contact with the soil".

OR

"The roots of the plants have been dipped in fenamiphos at 1.6g a.i. per litre of water for 30 minutes".

(b) All whole plants and cuttings must be treated for insects and mites as follows, unless stated otherwise in the “schedule of special conditions”:

Insects

One of the following three treatments is required:

(1) Methyl bromide (dormant material only): fumigation for 2 hours at atmospheric pressure at one of the following combinations of rate (g/m³) and temperature (°C):

Rate (g/m ³)	Temperature (°C)
48	10 – 15
40	16 – 20
32	21 – 27
28	28 – 32

OR

(2) Hot water treatment/chemical treatment (dormant material only): immersion in hot water at a constant temperature of 24°C for at least 2 hours, followed by immersion in hot water at a constant temperature of at least 45°C for at least 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in chlorpyrifos dip (2.4 g active ingredient per litre of dip or as per manufacturer's recommendations) containing a non-ionic surfactant for 2 minutes with agitation. The treatment time must be increased to 5 minutes if bubbles remain

present on the bulb surface. The dip solution must be used no more than twice or as per manufacturer's recommendations. The chlorpyrifos dip may be incorporated in the hot water treatment.

OR

(3) Chemical treatment: spray, or preferably immerse in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using two active ingredients chosen from the table below, one belonging to the organophosphorous chemical group and the other from a different group. For dipping, the treatment time is normally 2 minutes (except fenvalerate) but must be increased to 5 minutes if bubbles remain present on the plant surface. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

Chemical group	Active ingredient	Dip time	Notes
Carbamate	Carbaryl	2-5 mins	
Diacylhydrazine	Tebufozide	2-5 mins	
Neonicotinoid	Imidacloprid (0.16 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Neonicotinoid	Thiacloprid (0.16 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Organophosphorous	Acephate (0.75 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Organophosphorous	Chlorpyrifos (0.8 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping
Organophosphorous	Dimethoate	2-5 mins	Non-dormant material only
Organophosphorous	Pyrimiphos-methyl (0.475 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping
Pyrethroid	Deltamethrin	15 mins	
Pyrethroid	Fenvalerate	15 mins	
Spinosyns	Spinosad	2-5 mins	Dip/spray at room temperature

Mites (non-diapausing)

Treatment must be completed either offshore prior to export or on arrival in New Zealand at the importer's expense.

- If performed offshore, the exporting country NPPO must confirm that this treatment is endorsed in the disinfection and/or disinfection treatment section of the phytosanitary certificate including active ingredient/s of the chemical/s used, rate of application, mode of application (i.e. dipping or spraying with a surfactant), treatment time (i.e. how long the treatment was applied for) and date of application.
- If performed on arrival (on-shore), plant material must be treated at an MPI approved facility in accordance Approved Biosecurity Treatments (ABTRT) by an MPI-Approved Treatment Provider.
- A copy of the chemical label must be supplied if different to the table below.

One of the following two treatments is required:

(1) Methyl bromide (dormant material only): continuous fumigation at atmospheric pressure in accordance with a schedule that achieves the minimum concentration-time product (CT) (minimum achieved dose ($\text{g}\cdot\text{h}/\text{m}^3$)) at a minimum temperature ($^{\circ}\text{C}$) that must not be less than 10°C , is specified in the table below. Treatment must be achieved over the minimum exposure time (minimum duration (h)) that must not be less than 2 hours and not fall below a minimum

concentration (final residual concentration (g/m^3)) during that treatment, as per the schedules in Table 1. Alternative options for longer exposure times with weaker concentrations or at higher temperature ($^{\circ}\text{C}$) are also specified in the table below.

Table 1: Methyl bromide fumigation schedules (dormant plant material only): For mites (non-diapausing), fumigation for a minimum of (i) 2, (ii) 2.5 or (iii) 3 hours at atmospheric pressure.

Minimum initial concentration (g/m^3)*			Minimum concentration-time product (CT)/ achieved dose ($\text{g}\cdot\text{h/m}^3$)	Minimum temperature over duration of treatment ($^{\circ}\text{C}$)	Minimum concentration during fumigation (g/m^3)**		
2 h ⁱ	2.5 h ⁱⁱ	3 h ⁱⁱⁱ			2 h ⁱ	2.5 h ⁱⁱ	3 h ⁱⁱⁱ
68	56	48	120	10	51	41	34
57	48	40	100	16	43	35	28
48	40	34	85	21	36	29	24
40	32	28	70	28	30	23	20

*The shaded area of the table is guidance only. It is guidance on the minimum initial methyl bromide concentration that can achieve the required CT values at the optional temperature and treatment-duration combinations.

**Minimum concentration during fumigation (g/m^3) must be achieved throughout the treatment and depends on the temperature and duration of the treatment, but must not be less than 2 hours

ⁱ Treatment duration is over a minimum of 2 continuous hours

ⁱⁱ Treatment duration is over a minimum of 2.5 continuous hours

ⁱⁱⁱ Treatment duration is over a minimum of 3 continuous hours

Guidance

- While a number of combinations of time and initial concentration may be used to achieve the minimum requirements (CT and minimum final concentration (g/m^3)) of the treatment, care must be taken to avoid phytotoxicity. Phytotoxic effects of the treatment may increase when a higher initial concentration at lower temperature and reduced duration is used.
- It is the importers responsibility to choose which 'duration of treatment (time (h))' option will be undertaken.
- The importer undertakes treatments at their own risk (see legal disclaimer in Approved Biosecurity Treatments (ABTRT))

The concentration-time product (CT) utilized for methyl bromide treatment in this standard is the sum of the products of the concentration (g/m^3) and time (h) over the duration of the treatment. This is in accordance with ISPM 43: *Requirements for the use of fumigation as a phytosanitary measure*.

OR

(2) **Chemical treatment:** spray to the point of runoff (with a suitable surfactant), or preferably immerse in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using either OPTION 1 (one-acaricide treatment option) or OPTION 2 (two-acaricides combined treatment option) as indicated below. For dipping, the treatment time is normally 2 minutes but must be increased to 5 minutes if bubbles remain present on the plant surface. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations at the maximum label rate as shown in the table below;

OPTION 1: One acaricide treatment

Select any single acaricide from the list below for dormant or non dormant plant material.

Active ingredient	Chemical group	Rate (g/L water)**	Formulation type*	Re-treatment period***
Spiromesifen	Tetronic and Tetramic acid derivatives; group 23	0.152	SC	7 -10 days
Milbemectin	Avermectins, Milbemycins; group 6	0.012	SC	
Fenpyroximate	METI acaricides and insecticides; group 21A	0.025	SC	
Bifenazate+	Bifenazate; group 20D	0.135	SC	7 -10 days
Abamectin	Avermectins, Milbemycins; group 6	0.007		

*SC-Suspension concentrate

**concentration of active ingredient (not amount of concentrate solution)

***Retreatment must apply according to the NOVACHEM agrichemical manual or label

OPTION 2: Two acaricides combined treatment

OPTION 2A: Etoxazole + one of the chemicals selected from *Group a*

OPTION 2B: Fenazaquin + one of the chemicals selected from *Group b*

Active ingredient	Chemical group	Rate (g/L water)	Formulation type*
OPTION 2A (Non-dormant material only)			
EtOxazole	EtOxazole; group 10B	0.038	SC
Group 'a'			
Abamectin	Avermectins, Milbemycins; group 6	0.012	EC
Chlorfenapyr	Pyrroles; group 13	0.087	SC
OPTION 2B			
Fenazaquin	METI acaricides and insecticides; group 21A	0.352	SC
Group 'b'			
Acequinocyl	Acequinocyl; group 20B	0.150	SC
Dicofol	Dicofol; group UN	0.694	EC

*SC-Suspension concentrate; EC-Emulsifiable concentrate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

2.2.1.7 Pesticide treatments for dormant bulbs

These treatments are only required for dormant bulbs if specifically stated in the “schedule of special conditions” or section 2.4:

Insects

One of the following four treatments is required:

(1) Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the following combinations of rate (g/m³) and temperature (°C):

Rate (g/m ³)	Temperature (°C)
48	10 – 15
40	16 – 20
32	21 – 27
28	28 – 32

OR

(2) Actellic room fumigation: 10 cc Actellic/10m³ of room capacity for 12 hours at 20°C or higher. The first treatment should take place within 14 days after harvesting. Repeat the treatment two more times within an interval of 4 weeks.

OR

(3) Hot water treatment/chemical treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in chlorpyrifos dip (2.4 g active ingredient per litre of dip) containing a non-ionic surfactant for 2 minutes with agitation. The treatment time must be increased to 5 minutes if bubbles remain present on the bulb surface. The dip solution must be used no more than twice or as per manufacturer's recommendations. The chlorpyrifos dip may be incorporated in the hot water treatment.

OR

(4) Chemical treatment: immersion in a dip(s) containing two active ingredients chosen from the table below, one belonging to the organophosphorous chemical group and the other from a different group, with agitation according to the prescribed conditions. The treatment time is normally 2 minutes but must be increased to 5 minutes if bubbles remain present on the bulb surface. The dip solution must be used no more than twice or as per manufacturer's recommendations.

Chemical group	Active ingredient	Time	Notes
Neonicotinoid	Thiocloprid/Imidacloprid (0.16 g per litre of dip)	2-5 mins	Non-ionic surfactant required
Organophosphorous	Diazinon (0.5 g per litre of dip)	2-5 mins	-
Organophosphorous	Pirimiphos-methyl (2.5-3.25 g per litre of dip)	2-5 mins	Non-ionic surfactant required
Phenylpyrazole	Fipronil (40 mg per litre of dip)	2-5 mins	Non-ionic surfactant required

Mites

One of the following four treatments is required:

(1) Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the combinations of rate (g/m³) and temperature (°C) prescribed for insects above.

OR

(2) Actellic room fumigation: 10 cc Actellic/10m³ of room capacity for 12 hours at 20°C or higher. The first treatment should take place within 14 days after harvesting. Repeat the treatment two more times within an interval of 4 weeks.

OR

(3) Hot water treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times).

OR

(4) Chemical treatment: immersion in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using either Abamectin or two active ingredients belonging to different chemical groups chosen from the table below. The treatment time is normally 2 minutes but must be increased to 5 minutes if bubbles remain present on the plant surface. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

Chemical group	Active ingredient	Dip time	Notes
Avermectin	Abamectin (0.009 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping
Organochlorine	Dicofol	2-5 mins	
Organophosphorous	Acephate (0.75 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Organophosphorous	Chlorpyrifos (2.4 g per litre of dip/ spray)	2-5 mins	Non-ionic surfactant required for dipping
Organophosphorous	Dimethoate	2-5 mins	Non-dormant material only
Organophosphorous	Pirimiphos-methyl (0.475 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping

Nematodes

Both of the following treatments are required:

(1) Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the combinations of rate (g/m³) and temperature (°C) prescribed for insects above;

OR Hot water treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 4 hours (period required at the stated temperatures excluding warm-up times).

AND

(2) Chemical treatment: immersion in fenamiphos (1 g active ingredient per litre of dip) for 1 hour.

Fungi

Both of the following treatments are required:

(1) Chemical treatment: immersion in a dip containing one of the following active ingredients, with agitation according to the prescribed conditions. The dip solution must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

Active ingredient	Dip time	Notes
Bromo-chloro-dimethylhydantoin (8.1-16 g per litre of dip)	5 mins	
Formaldehyde (0.4%)	2 hours	Dip at room temperature
Peroxyacetic acid (80 ppm)	5 mins	Dip at room temperature Wetting agent required
Sodium hypochlorite (10%), pH 6.5-7	5 mins	Dip at room temperature

AND

(2) Hot water treatment/chemical treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in thiabendazole dip (1-1.3 g active ingredient per litre of dip) containing a wetting agent for 15-30 minutes with agitation. The dip solution must be used no more than twice or as per manufacturer's recommendations. The thiabendazole dip may be incorporated in the hot water treatment;

OR Chemical treatment: immersion in a dip(s) containing two active ingredients belonging to different chemical groups chosen from the table below, with agitation according to the prescribed conditions. The dip solution must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

Chemical group	Active ingredient	Dip time	Notes
Benzimidazole	Thiabendazole (1-1.3 g per litre of dip)	15-30 mins	Dip at room temperature Wetting agent required
Benzimidazole	Thiophanate-methyl (0.75 g per litre of dip)	15-30 mins	Dip at 27-29.5°C
Dimethyldithio-carbamate	Thiram (11.2 g per litre of dip)	-	Dip at room temperature
Imidazole	Prochloraz (0.25 g per litre of dip)	15 mins	Dip at room temperature
Strobilurin	Azoxystrobin (0.95 g per litre of dip)	15 mins	Dip at room temperature

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.