Phytosanitary treatments
Traitements phytosanitaires

Hot water treatment of *Dracaena* and *Yucca* cuttings against *Opogona sacchari*

Specific scope

This standard describes hot water treatment of *Dracaena* and *Yucca* cuttings against *Opogona sacchari*. This is an alternative to PM 10/3 (previously standard PM 3/14).

Specific approval and amendment

First approved in 2008-09.

Introduction

Opogona sacchari, the sugar cane borer, originates in the humid tropical and subtropical regions of Africa, where it is not a significant pest. However, *O. sacchari* is a serious pest of many protected ornamental plant species, and is listed in EC plant health legislation (EPPO/CABI, 1997). It has frequently been intercepted on *Yucca* and *Dracaena* (e.g. *Dracaena fragrans*, a popular variety) and early stages of larval tunnelling in woody or fleshy cuttings are practically undetectable. The cuttings remain viable for long periods, thus enabling disinfestation treatments to be conducted during storage.

Commodities/regulated articles

Cuttings[1] of *Yucca* (UCCSS) and *Dracaena* (DRNSS)

Pests

Opogona sacchari (OPOGSC)

Treatment schedule

Select a water bath with a much larger volume (3- to 4-fold over-capacity) than that of the *Yucca* or *Dracaena* cuttings to be treated[2]. Pre-heat the water to 47°C and completely immerse the cuttings for 1 h[3]. The 1 h-treatment should not commence until the water temperature has returned to 47°C following immersion of the cuttings. After 1 h transfer the cuttings to another water-bath at 20°C, and immerse for at least 10 min to allow cuttings to cool down. They should then be left to dry for a few hours before packing.

Efficacy of treatment

Results presented by Walters *et al.* (2002) showed that disinfestation of both *Yucca* and *Dracaena* cuttings infected with *Opogona sacchari* is possible with a hot water treatment of 60 min at 47°C followed by 10 min at 20°C[4]. Experimental details are provided. A full immersion in hot-water at 50°C for 14 min is accepted as a phytosanitary treatment for *Dracena* cut flowers and branches by New Zealand's Ministry of Agriculture and Food (Anonymous, 2002).

References

Anonymous (2002) Import Risk Analysis of *Cordyline* and *Dracaena* Cut Flowers and Branches for the Development of a Generic Import Health Standard. New Zealand MAF Biosecurity Authority, Wellington (NZ).

EPPO/CABI (1997) *Opogona sacchari*. *Quarantine Pests for Europe*, 2nd edn, pp. 414–417. CAB International, Wallingford (GB).

Walters KFA *et al.* (2002) *New Quarantine Treatments for Horticultural and Timber Products as Alternatives to Methyl Bromide Fumigation*. FAIR CT98 4259.

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[1] This treatment can be used on both rooted and unrooted cuttings. The experimental work was carried out on standard commercially-grown yucca cuttings (approximately 3–4 cm in diameter).

[2] This over-capacity minimizes the decrease in temperature caused by immersion of the cuttings.

[3] Due to the buoyancy of the material, it will need to be held down by placing a grid on top of the cuttings and placing sufficient weight on it.

[4] Relatively minor growth retardation was seen in both plant species after the treatment although the sprouts developed slightly lower on the stem than in the controls.

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