



DEPARTMENT: AGRICULTURE
REPUBLIC OF SOUTH AFRICA

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**Requirements:
Management of Vine Snout Beetle (*Phlyctinus callosus*)
On Table Grapes from the Hex River area destined for Israel,
Using PLANTEX® + KARATE®**

Introduction

Snout Beetles are one of the main insect pest problems in the South African Table Grape export programme to Israel. Originally, Table Grapes could only be exported from the Hex River area to Israel after methyl bromide (MB) fumigation – to mitigate against Snout Beetles – as well as cold treatment – to mitigate against Fruit Flies. Local Industry had serious concerns about the effects of MB fumigation, however, so it did not use this option.

In the 2001/2 to 2003/4 export seasons, the Israel Plant Protection Inspection Service (PPIS) tested the integration of PLANTEX® plus KARATE® if necessary into the pest management system as an alternative to MB fumigation. This has succeeded, so PPIS is allowing the PLANTEX® option, with the provision that it is effectively applied and maintained in conjunction with proper weed control practices. To ensure effective application of PLANTEX®, the Department of Agriculture, Directorate Plant Health provides the following requirements and information.

1. Requirements for applying PLANTEX® as part of Integrated Control Measures (ICM) against Vine Snout Beetles

- 1.1 The first infestations of vines usually occur in spring at 50 cm shoot length. Sticky stem barriers must therefore be applied before this stage, in other words during winter after pruning. **For a treatment to be effective, the latest application date is the middle to the third week of September – depending on climatic conditions.**
- 1.2 Note: Winter chemical spray treatments are not recommended because Snout Beetles over-winter in the soil as pupae.
- 1.3 Apply the PLANTEX® sticky stem barriers according to the manufacturer's directions and under the supervision of the relevant technical expert.
- 1.4 The manufacturer's directions state that only vineyards older than 3 years should be treated (in other words, not to apply PLANTEX® to stems of young vines that have not

- yet become woody. PPIS, however, requests that ALL vines in the vineyard should be treated. **Presence of untreated vines will disqualify a vineyard for export to Israel.**
- 1.5 Remove and burn all bark from the vine stems below the crown, or in an area at least 25 cm long at about mid-stem height.
 - 1.6 At the start of **each season**, just prior to applying PLANTEX[®], remove bark cleanly. Apply a continuous band of PLANTEX[®] at least 10 cm wide around the vine stems, above the irrigation zone and below the lowest expected height of fruit bunches, as well as to trellis poles and support wires. In other words, leave no pathways and no 'bridges' for Snout Beetles to access the vine canopy anywhere in the vineyard block.
 - 1.7 Regularly remove all vine shoots that could touch the soil or make contact with any other place where they could form a bridge for insects to reach the vine canopy. Similarly, ensure that there are no bridges from adjoining blocks that are not registered for export to Israel. Make sure that all supports and trellis wires between registered and non-registered blocks are treated, so that no cross-contamination can take place with respect to Snout Beetles. It is recommended that the whole adjoining block be treated with PLANTEX[®], or at least one adjoining buffer row on each side of a block registered for Israel.
 - 1.8 Check PLANTEX[®] bands monthly for flaking bark. Remove loose bark and touch up with PLANTEX[®] to prevent the development of any pathways for insects.
 - 1.9 Regenerate the PLANTEX[®] regularly (at least once a month) by stirring it. This keeps barriers sticky and prevents them from becoming ineffective. (Dust and insects settle on the glue, causing the barriers to lose their effectiveness.) Ensure that the PLANTEX[®] layer is thick enough to effectively cover all new bark formation beneath it.
 - 1.10 Keep weeds under strict control in order
 - To prevent Snout Beetles from using weeds to gain access to the vine canopy
 - To eliminate a food source for Snout Beetles on the ground, and also
 - To prevent contamination of the grape bunches by weed seeds.
 - 1.11 **Use 'good housekeeping' practices: for example, no fruit picking trays are to be placed on the ground in a vineyard before or during harvest, and no packing boxes for Israel exports are to be placed on the packing house floor at any time.**

2. Background information on Snout Beetles and Integrated Crop Management

- 2.1 In early spring (approximately September), Snout Beetle pupae start to hatch in the soil. If the vineyard floor is kept clear of plant cover (weeds), the Snout Beetles will not be able to feed there. If PLANTEX[®] barriers are present, the beetles will not be able to feed in the vine canopy either.
- 2.2 Without food, the Snout Beetle population decreases. The smaller population on the vineyard floor can be treated with harsher chemicals than can be used on the canopy, and this will not affect the integrated pest management approach too detrimentally.
- 2.3 If Snout Beetles are detected in the canopy, treat with a full cover spray application of a suitable insecticide – PPIS has approved Lambda-cyhalotrin (KARATE[®]) however it is not allowed on grapes destined for USA. If necessary, a stem spray treatment of cyfluthrin (Baythroid) can also be considered.
- 2.4 Few spray applications are usually needed for vineyards that are properly treated with PLANTEX[®], and which are kept free from weeds and stray shoots that allow Snout Beetles to access the vine canopy.

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