

# *Penetrates and Protects your Banana Plants*



**The Changing of the Guard**



**SUMITOMO CHEMICAL**

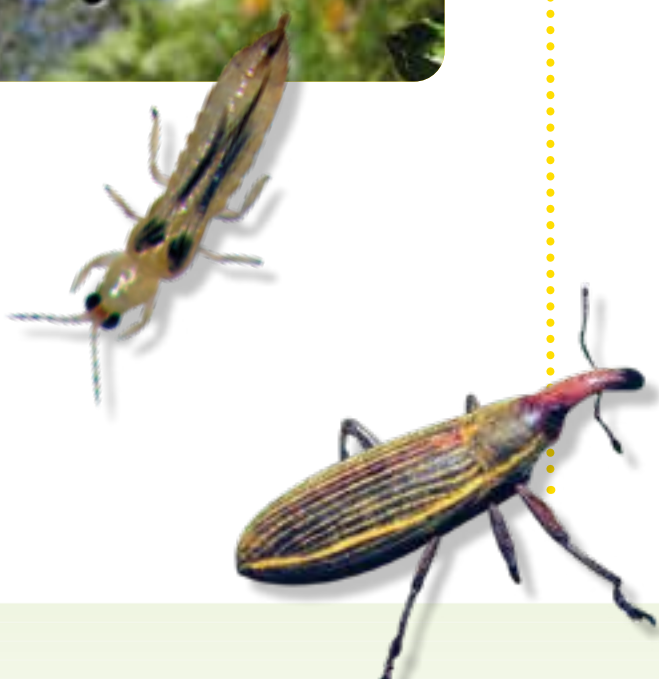


Sumitomo Chemical Australia has developed a new insecticide – Sumitomo Shield Systemic Insecticide™ to protect your banana plants from weevil borer and rust thrips. The superior penetration and efficacy provides a Shield to protect against these pests.



## Application methods

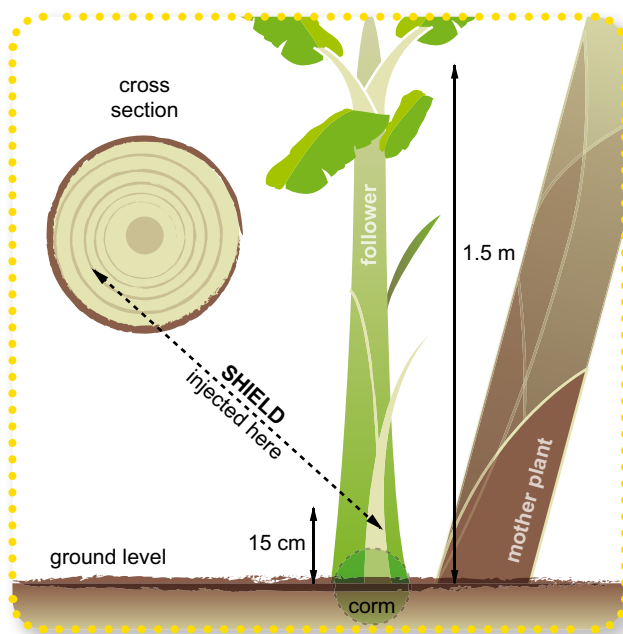
*Apply to the base of a follower plant when they reach a height of about 1.5 m to the throat of the plant (base of the central cigar leaf) – preferably within one month of the mother plant being harvested or of nurse suckering. If applying to plant bananas height should also be about 1.5 m.*



## Stem injection

Apply 3 mL Shield per stem – injected at the base. The insecticide may be diluted to assist application but it is recommended not to dilute to more than 6 mL with water because a greater volume is difficult for the stem to retain.

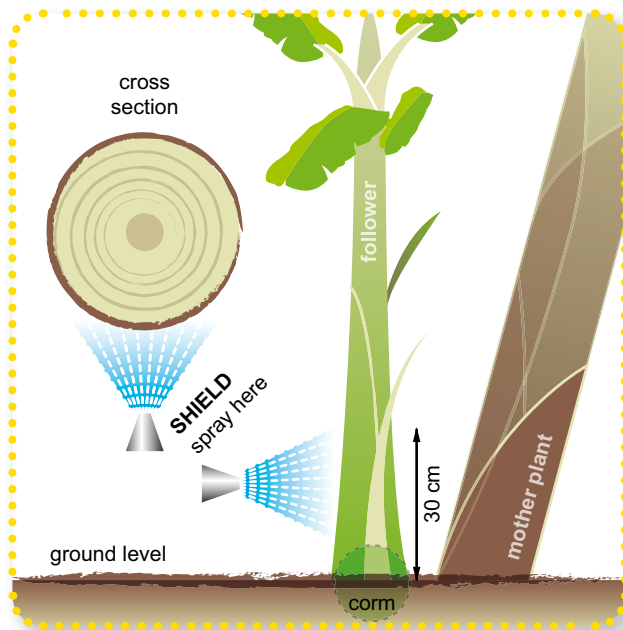
Injection treatments should be applied at 15 cm above ground level angled down towards the base. The needle should go in about 10 cm for injection. The injection should be angled such that it is not in the centre of the plant but rather under the outside leaf base about 4 cm deep. Chemical should not emerge from the injection site.



## Stem spray

Apply 4.5 mL Shield in a total volume with water of 10 mL – sprayed on to the base of green stem.

The stem spray should be applied with a full cone nozzle directed at the base of the stem and up to a height of 30 cm, so that it covers around 40% of that area of the stem. The spray should be calibrated so it delivers 10 mL of mixture per stem. **Do not spray on to old leaf bases. Ensure the stem is still fresh and green where the spray is applied.**



The Directions for Use are shown on the second last page of this booklet.



## Features

- Quick penetration of plant
- Better long term efficacy than fipronil or prothiofos current label recommendations
- Active has relatively low toxicity to many non target species
- Active has low mammalian toxicity
- Schedule 5 product compared to current products that are schedule 6

## Benefits

- Can be sprayed on the stem rather than injected – saving labour costs
- Superior control of weevil borer and rust thrips for up to 10 months
- Compatible with existing application equipment
- Lower toxicity to workers and many non target species

## Activity

- Both contact and stomach action, with the chemical having systemic and residual activity
- Activity not affected by soil type

## Mode of action

Acetylcholine receptor agonist – interferes with the transmission of nerve impulses.

## Active ingredient

Finally we get the benefits of Clothianidin – arguably the compound from the neonicotinoid group with the widest most useful activity.

## Formulation

Sumitomo Shield Systemic Insecticide™ is sold as a soluble concentrate with an active ingredient concentration of 20%.

## The pests



Typical damage from **weevil borer** (*Cosmopolites sordidus*)



Typical damage from **rust thrips** (*Chaetanaphothrips signipennis*)

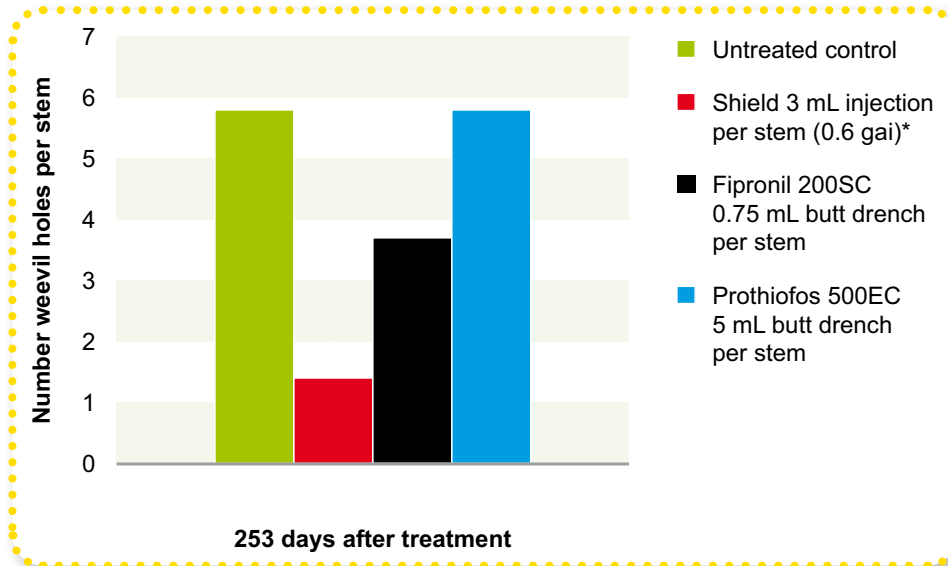


## Independent trial results

Sumitomo Shield Systemic Insecticide™

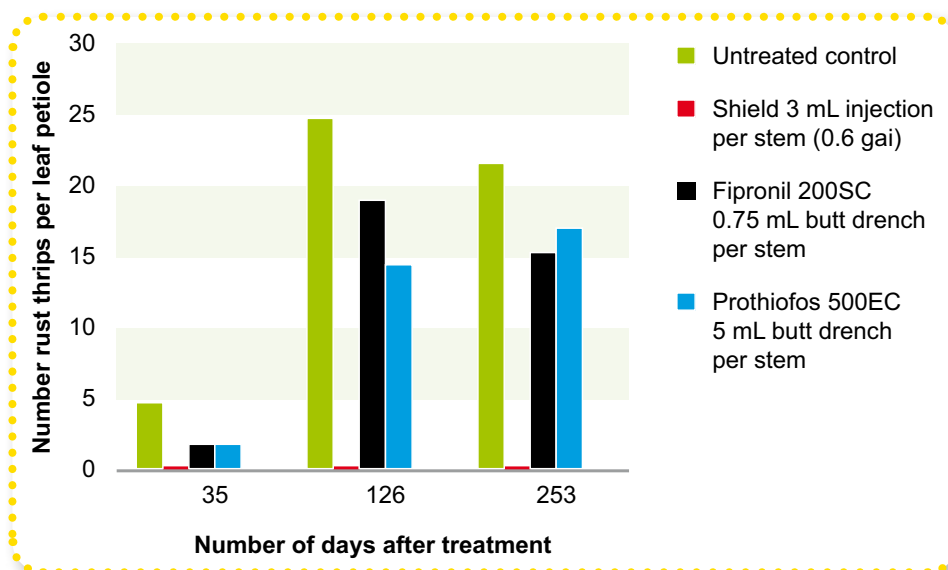
### For weevil borer control by stem injection on Cavendish bananas

N QLD



### For banana rust thrips control by stem injection on Cavendish bananas

N QLD



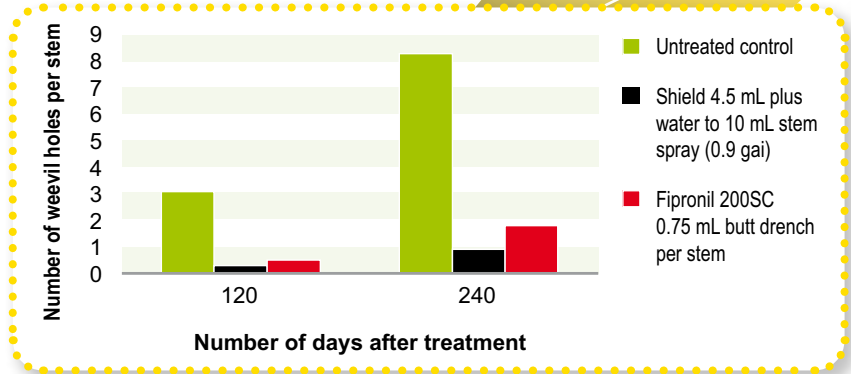
Shield has better long term efficacy on banana weevil borer than the current recommended doses of fipronil and prothiofos.



**For weevil borer control by stem spray on Cavendish bananas**

**N QLD**

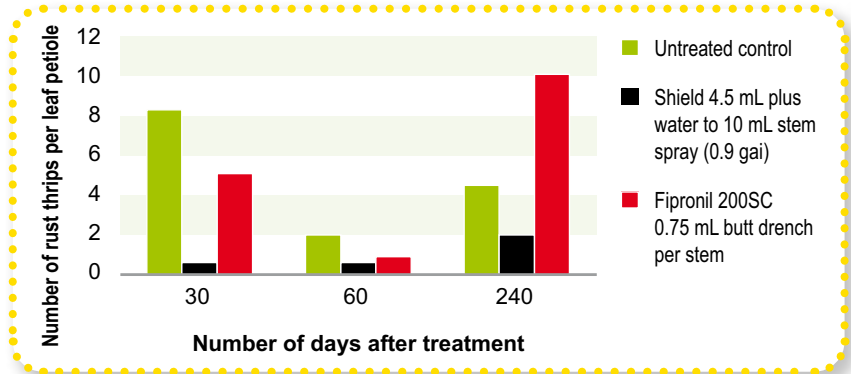
**Heavy rain fell 2 hours after application**



**For rust thrips control by stem spray on Cavendish bananas**

**N QLD**

**Heavy rain fell 2 hours after application**



Even when followed by heavy rain, a stem spray of Shield gave superior long term control of weevil borer and rust thrips to fipronil. To be safe however it is recommended that the Shield stem spray treatment is not used if heavy rain is expected within 24 hours.

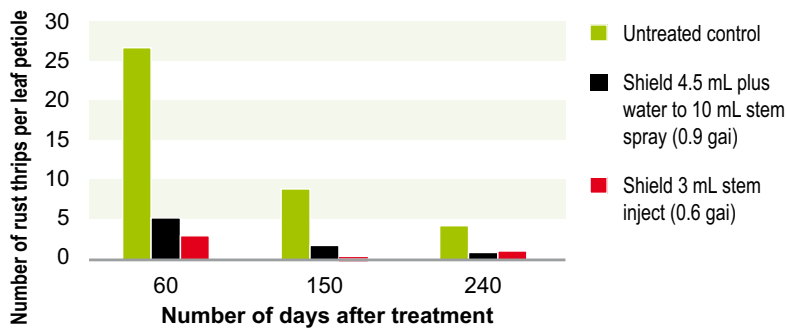
**Directions for use**

**Restraints**

For bananas it is recommended that Shield is not applied in consecutive crop cycles but rather alternated with a product from a different group to reduce the possibility of rust thrips developing resistance

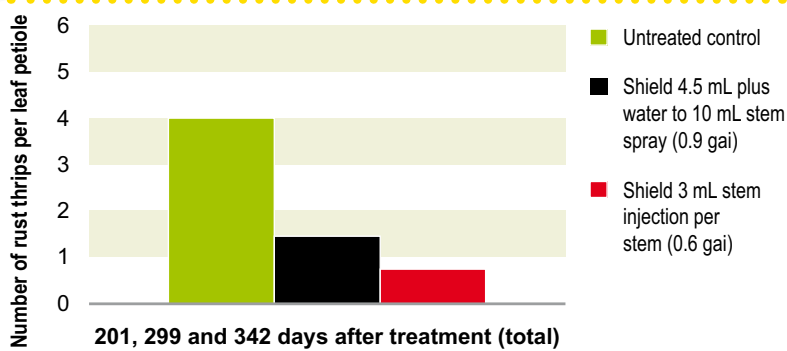
**DO NOT** apply the stem spray application to bananas if rain is expected within 24 hours

CROP	PEST	RATE	CRITICAL COMMENTS
Banana	Weevil borer	<b>Stem Injection</b> 3 mL per pseudostem injected at the base	<b>Timing</b> Apply to pseudostem of the main daughter plant when it is a height of 1.5 m to the base of the central cigar leaf, preferably within one month of the bunch on the mother plant being harvested.
	Rust thrips	<b>Stem Spray</b> 4.5 mL per pseudostem sprayed onto the base, in a total water volume of 10 mL	



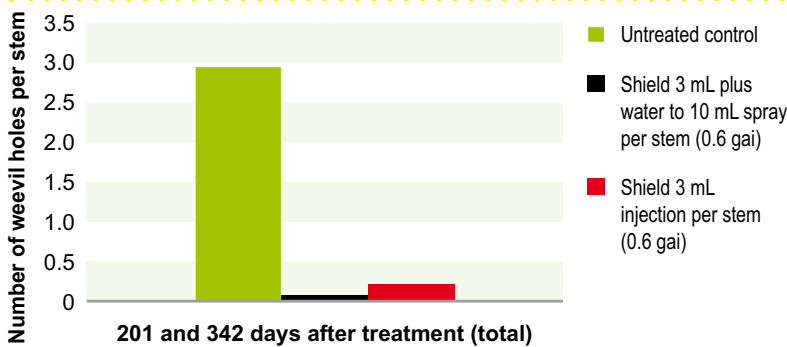
## For rust thrips control by stem spray or injection on Cavendish bananas

**N QLD**



## For rust thrips control by stem spray or injection on Lady Finger bananas

**NSW**



## For weevil borer control by stem spray or injection on Lady Finger bananas

**NSW**

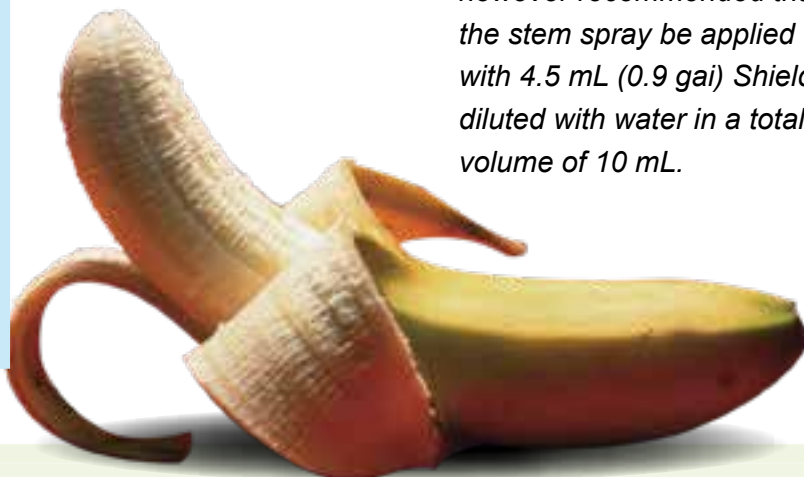
*Ladyfinger banana plants can be larger than Cavendish and the time between bunches can be longer, but Shield gives good results as a stem spray or injection. It is however recommended that the stem spray be applied with 4.5 mL (0.9 gai) Shield diluted with water in a total volume of 10 mL.*

### Stem Injection

*Injection should be angled such that it is not in the centre of the plant but rather under the outside leaf base about 40 mm deep. See Application section for further information.*

### Stem Spray

*Ensure the stem spray is applied to green growing stem. See Application section for further information.*



# SHIELD™

SYSTEMIC INSECTICIDE™



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**For safe, long lasting control of  
banana weevil borer and rust thrips**