

Pink stalk borer (*Sesamia griseocens*)

EXOTIC PEST DETECTION & SAMPLING GUIDE



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Background

This pest, also known as the Ramu shoot borer, is a moth that only occurs on New Guinea and some surrounding islands. However, it is the most serious pest of commercial sugarcane in Papua New Guinea and is one of the highest exotic plant pest risks for the Australian sugar industry. In addition to sugarcane, this species can also feed on rice and on a range of other related grasses. They are particularly difficult to control because their feeding strategy enables them to evade both pesticides and natural enemies.

How would I identify Pink stalk borer?

Identification by morphology

The adults of these moths are a pale silvery grey-brown colour. They have a wingspan of 30 to 40 mm. The males have serrated antennae but females have more simple antennae. Eggs are laid in clusters of 20-250 under the green leaf sheaths of young cane. The larval (caterpillar) stages are typically 30 to 50 mm long when fully grown and have a distinctive light pink colour (Figure 1).

Identification by damage

Female moths lay their eggs on growing plants. The larvae that hatch out then tunnel into the stalk where they feed voraciously in the upper internodes. This often kills the growing point and causes rotting of the top resulting in dead hearts. Older larvae migrate to healthy stalks and continue feeding and tunnelling inside them. Bored out stalks can easily break in strong winds.

Before pupation, the larvae cut an exit hole that is usually 5-10 mm in diameter. Rotting cane tissue that results from Pink stalk borer infestation also encourages sugarcane weevil borer infestation, along with fungal and bacterial diseases that can lead to further crop damage.

How do I scout for Pink stalk borer?

There are currently no major moth borer pests of sugarcane

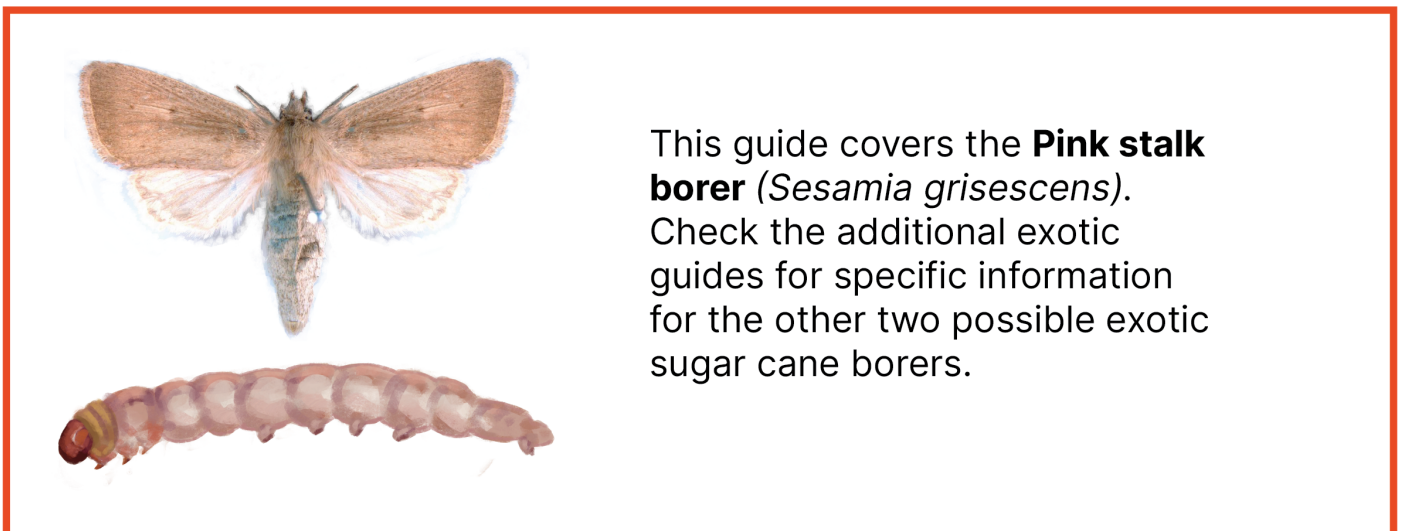
found in Australia, so growers should be on the lookout for any unusual moths within cane plantations. Adult Pink stalk borer moths are relatively short-lived and are usually only active at night, but can be trapped using pheromone lures.

In particular, look out for dead hearts and exit holes potentially left by emerging larvae. Severely infested crops have many dead shoots, and tunnels in the upper parts of the stems filled with chewed cane and frass (faecal matter). To check for the presence of developing larvae, cane plants can be sliced horizontally and visually inspected. Discriminating Pink stalk borer larvae from larvae of other pest moth borer species is difficult and expert advice should always be sought.

Could it be confused with an endemic species?

Symptoms caused by Pink stalk borer larvae, where mature stalks are tunnelled, resemble those caused by the sugarcane weevil borer, which occurs in almost all cane-growing areas of Queensland. However, weevils are beetles and the larvae of this pest show morphological differences to that of the Pink stalk borer caterpillar – most obviously, they lack legs. Any initial damage to sugarcane plants caused by Pink stalk borer larvae is liable to also attract weevil borers.

Figure 1. Pink stalk borer (*Sesamia grisescens*) adult and larvae



This guide covers the **Pink stalk borer** (*Sesamia grisescens*). Check the additional exotic guides for specific information for the other two possible exotic sugar cane borers.

What should I do if I suspect Pink stalk borer?

Pink stalk borer is a priority plant pest, exotic to Australia. If you notice an unusual moth among sugarcane of similar size and appearance to that shown in Figure 1, or find a caterpillar within cane stems similar to that shown in Figure 2, call the **Exotic Plant Pest hotline on 1800 084 881**. The hotline will divert you to the appropriate state biosecurity agency, which will investigate the suspect detection further. To support an investigation you should take note of:

- The detection location (take a GPS coordinate using your phone);
- The host plant on which the suspect detection has been made;
- Damage symptoms (e.g. exit holes, stem tunnelling); and
- A photo of all life stages observed (taking close-up photos of the same specimen from multiple angles is most useful for identification).

Taking a sample

Taking a sample will also assist in a biosecurity investigation. Collect infested cane stalks in a ziplock bag – double bagging of specimens is ideal. Label the bag with the date and collection location and keep in the fridge in case a larval sample is needed by the biosecurity agency.

Figure 2. Reporting decision making for Pink stalk borer (*Sesamia griseascens*)

If you answer yes to EITHER of the following questions, it could be one of three **exotic sugarcane borer moths**. Report it!

1 Do you see clusters of 10 to 300 eggs on the tops or bottoms of leaves? **Yes** ✓

2 When you crack open a stem, do you find white, cream or pink coloured grubs with **visible legs** behind the head and along the body? (you might also see pupae inside stems) **Yes** ✓

But if the grubs have **NO** visible legs, it is likely the already established sugar cane weevil.

But if you see adult beetles, it is likely the already established sugar cane weevil.

Additional possible signs

○ At night time, you might see white, cream or brown coloured adult moths, 2 to 4 cm long.

S. excerptalis *S. griseascens* *C. terrenellus*

legs (and prolegs)

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Figure design and all other illustrated components: Elia Pirtle, eliapirtle.com

More information

[Australian Cane Learning Centre video](#), [CABI fact sheet](#)

References

Young, G R & Kuniata, L S (1992) Life history and biology of *Sesamia griseascens*, a sugarcane borer in Papua New Guinea – J. Aust. Ent. Soc. v31 p199