GREYBACK CANEGRUB
(DERMOLEPIDA ALBOHIRTUM)

Sugar Research Australia

INTRODUCTION

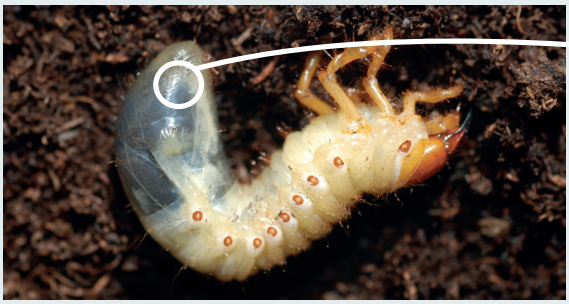
Greyback canegrub is native to Australia and is the most damaging pest of Australian sugarcane. It is a pest from Sarina north, on a wide range of soil types.

DESCRIPTION:

Beetles (Photo 1) are up to 35 mm long with wing covers coloured grey by a coating of scales. They develop dark brown patches as the scales wear off.

Greyback larvae (Photo 2) have two almost straight rows of 20-28 short hairs on their undersurface at their rear (Photo 3). Large brown pupae (Photo 4) are formed before the adult beetle stage.

Photo 1: Adult greyback cane beetles.



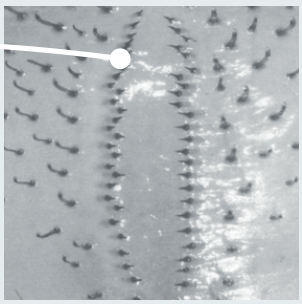


Photo 2 (above left): Greyback canegrub larva.

Photo 3 (above right): Close-up of hair pattern (raster) used to identify canegrub species – this is a greyback canegrub.

Photo 4: Greyback canegrub pupa.

Photo 5: Greyback cane beetles in a fig tree.

BIOLOGY

Nematode life cycles are short, as little as 4-5 weeks in Greyback canegrubs have a 1-year life cycle (Figure 1). Beetles emerge after good rains between October and February. They fly after dark to feed on trees, including figs (Photo 5), wattles, eucalypts and palms.

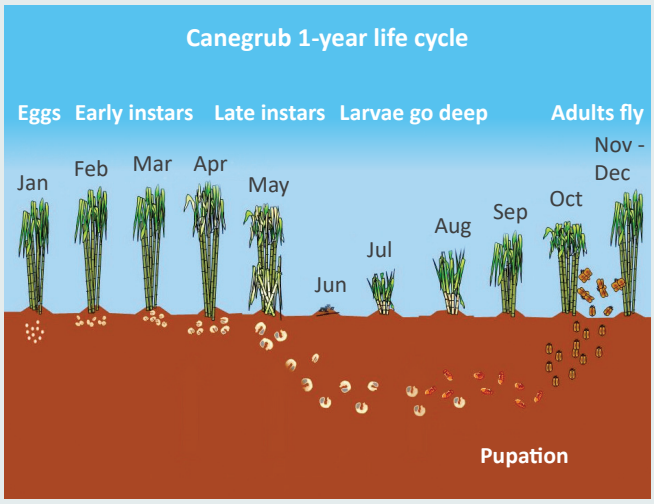


Figure 1: Greyback canegrub life cycle.

Females feed for up to 14 days before laying eggs. The beetles are attracted to light. Females return to the soil before daybreak and lay 20 to 30 eggs in one clutch, 20-45 cm deep in the soil. They may lay up to three clutches of eggs. Tall cane is more attractive to beetles laying eggs.

After 2 weeks the eggs hatch. First stage grubs feed for 4 weeks on organic matter and roots, usually close to the surface. Second stage grubs gather under cane stools and feed on roots for 5 weeks.

Third stage grubs feed heavily on the roots and stools and grow rapidly during February to May when they cause most damage. After 3-4 months, fully fed grubs burrow down and form pupation chambers in the soil. Grubs turn into pupae between July and October and beetles develop within 1 month. Beetles remain in the chamber until suitable weather conditions trigger their emergence.

DAMAGE

Feeding greyback larvae prune sugarcane roots from February to May. This root damage results in reduced growth, lodging, stool tipping, and sometimes death of the plant. Damaged stools may be lost at harvest or fail to ratoon (Photo 6).

MANAGEMENT

Registered controls for canegrub management are listed below. Trap cropping can be effective in attracting adults to certain fields or strips of cane, which can be treated with insecticide to kill the resulting grubs.

Monitoring is important and should be carried out from February to May (depending on region). Monitoring assists in assessing which fields may be at risk of infestation in the following year.

The SRA program 'GrubPlan' gives a comprehensive guide to greyback canegrub management.

See table overleaf.

Product labels give full instructions for use.

Only suSCon® Maxi Intel and Shield™ are registered for use in dual rows, but trial results indicate the following are also effective for dual row beds; giving 1 year control:

- suSCon maxi Intel®.
- Nuprid® 350 SC.

ADDITIONAL USEFUL INFORMATION

Greyback Canegrub Management information Sheet (July 2022)

Greyback Canegrub Management Manual (2020 update)

Photo 6: Damage to cane stool caused by greyback canegrubs.

Registered controls and rates for control of greyback canegrub			
Product (active constituent)	**Dual row**	**Single row**	**Length of control**
Plant			
suSCon® Maxi Intel (imidacloprid)	225 g/100 m of bed	150 g or 225 g/100 m of row	3 years (2 years for double disc plantings)
Senator® 700WG Nuprid®700 WG (imidacloprid)		5.5-11 g/100 m of row	1 year
Senator® 350 SC Nuprid® 350 SC (imidacloprid)		16-22 mL/100 m of row	1 year
Shield™ (clothianidin)	2.5 L/ha	2.5 L/ha	1 year
Ratoons			
Senator® 350 SC Nuprid® 350 SC (imidacloprid)		16-22 mL/100 m of row	1 year
Senator® 700 WG Nuprid®700 WG (imidacloprid)		8-11 g/100 m of row	1 year
Impress 350 and other generic products (imidacloprid)		16-22 mL/100 m of row	1 year
Shield™ (clothianidin)		1.75-2.5L/ha	1 year