

## Sweetpotato weevil (029)

### Summary

- Worldwide distribution. On sweetpotato and wild *Ipomoea* (morning glory). An important pest.
- Adults lay eggs in base of the stem ('crown') and in storage roots, and larvae tunnel through them. Adults eat the leaves and surface of the vines.
- Damage is the same as done by West Indian weevil. Worse in dry times, and in light sandy soils.
- Spread by adults on the wing, and in cuttings and storage roots.
- Cultural control: early, deep rooting varieties; plant only tip cuttings; remove wild morning glory; hill-up, covering cracks during dry times; ideally, make one-time harvest; 3-4-year crop rotation; after harvest, collect and destroy vines and infested storage roots.
- Chemical control: treat vines (bifenthrin); treat plants in field every 3-4 weeks (bifenthrin or fipronil).



Photo 1. Larvae or grubs of sweetpotato weevil, *Cylas formicarius*, damaging a vine at the crown where the stem enters the ground.



Photo 2. External damage to the base of the vine - called the crown - by the sweetpotato weevil, *Cylas formicarius*. Holes used by the adults to exit the stems can be seen.



Photo 3. Crown area of the vine, just above soil level, heavily infested by sweetpotato weevil, *Cylas formicarius*, and rots have developed.



Photo 4. Larvae or grubs of sweetpotato weevil, *Cylas formicarius*, in a storage root.



Photo 5. Adult sweetpotato weevil, *Cylas formicarius*.



Photo 6. Adult sweetpotato weevil, *Cylas formicarius*, caught in a sticky trap.



Photo 7. Sweetpotato weevil, *Cylas formicarius*, on the outside of a storage root left on the soil. Note the small feeding pits made by the weevil.



Photo 8. A pheromone trap attracting large numbers of male sweetpotato weevils, *Cylas formicarius*. Note the trap is a plastic bottle with the top 1/3 cut off and inverted. The pheromone has been absorbed onto rubber tubing which is held in place by wire.

AUTHORS Helen Tsatsia & Grahame Jackson

Information from Brookes D, et al. (2019) Origins, divergence, and contrasting invasion history of the sweet potato weevil pests *Cylas formicarius* (Coleoptera: Brentidae) and *Eusceps batatae* (Coleoptera: curculionidae) in the Asia-Pacific. Journal of Economic Entomology XX(XX): 1–9. ([https://www.researchgate.net/publication/334747037\\_Origins\\_Divergence\\_and\\_Contrasting\\_Invasion\\_History\\_of\\_the\\_Sweet\\_Potato\\_Weevil\\_Pests\\_Cylas\\_formicarius\\_Coleoptera\\_Brentidae\\_and\\_Eusceps\\_batatae\\_Coleoptera\\_Curculionidae\\_in\\_the\\_Asia-Pacific](https://www.researchgate.net/publication/334747037_Origins_Divergence_and_Contrasting_Invasion_History_of_the_Sweet_Potato_Weevil_Pests_Cylas_formicarius_Coleoptera_Brentidae_and_Eusceps_batatae_Coleoptera_Curculionidae_in_the_Asia-Pacific)); and CABI (2020) *Cylas formicarius* (sweet potato weevil). Invasive Species Compendium. (<https://www.cabi.org/isc/datasheet/17408>); and from O'Sullivan J, et al. (undated) Sweetpotato DiagNotes: A diagnostic key and information tool for sweetpotato problems. (<https://keys.lucidcentral.org/keys/sweetpotato/key/Sweetpotato%20Diagnotes/Media/Html/FrontPage.htm>). Photos 1,4,5,6 & 8 Russell McCrystal, Bundaberg, Queensland.

Produced with support from the Australian Centre for International Agricultural Research under project PC/2010/090: *Strengthening integrated crop management research in the Pacific Islands in support of sustainable intensification of high-value crop production*, implemented by the University of Queensland and the Secretariat for the Pacific Community.

Copyright © 2022. All rights reserved.



Web edition hosted at <https://apps.lucidcentral.org/pppw>