

## Coffee berry borer (118)

### Summary

- Worldwide distribution. On arabica and robusta coffee. A major beetle pest.
- The female bores into the berries to lay eggs, the larvae hatch and eat the beans, and winged female adults leave in search of other berries. Some stay and breed where they developed.
- Adults swarm, and may spread in updrafts of air.
- Natural enemies: the fungus *Beauveria* appears to give good control, compared to parasitoids or ants, which have not been as effective as required.
- Cultural control: pick berries as they ripen; collect fallen blackened berries, or break cycle over 3 months by stripping them from the bush and collecting berries on the ground (if labour is available and costs economic); prune to keep bushes at manageable height, remove suckers and dead branches; stump prune tall or bushes with declining yield stimulating new growth; destroy abandoned plantations.
- Chemical control: use *Beauveria*, a fungus (to preserve natural enemies); or use pirimiphos methyl.

### Common Name

Coffee berry borer

### Scientific Name

*Hypothenemus hampei*. Previously, it was known as *Crypsalus hampei*. It is a member of the beetle family curculionidae.



Photo 1. Adult coffee berry borer, *Hypothenemus hampei*, side view.



Photo 2. Adult *Hypothenemus hampei*, about 1.5-2.2 mm long, showing its relative size to a coffee bean.



Photo 3. The life cycle of the coffee bean borer, *Hypothenemus hampei*, takes place in coffee bean; this photo shows the frass that accumulates as the larvae and adults eat the beans.



Photo 4. Coffee beans damaged by the

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Information from Waterhouse DF, Norris KR (1989) *Hypothenemus hampei* (Ferrari). *Biological Control Pacific Prospects - Supplement 1*. ACIAR Monograph No. 12. Inprint Limited, Brisbane; and Evaluation of non-chemical alternatives to endosulfan (2012) UNEP/POPS/POPRC.8/INF/14/Rev.1. UN/UNEP; and Aristizabal LF, et al. (2017) Integrated pest management of coffee berry borer in Hawaii and Puerto Rico: Current status and prospects. *Insects* 8(4): 123. (doi: 10.3390/insects8040123); and from Aristizabal LF, et al. (2016) Integrated pest management of coffee berry borer: strategies from Latin America that could be useful for coffee farmers in Hawaii. *Insects* 7(1). 24pp. (<http://www.mdpi.com/2075-4450/7/1/6>). Photos 1&2 Walker, K. (2007) coffee berry borer (*Hypothenemus hampei*). PaDIL - <http://www.padil.gov.au>. Photo 2 Peggy Greb, USDA, ARS. Photo 3 Save Kona coffee! Fighting the coffee berry borer. (<https://marcoinkona.com/save-kona-coffee-fighting-the-coffee-berry-borer/>). Photo 4 Forest and Kim Star. Coffee Berry Borer parchment seeds with damage sample at Kula Community Centre, Maui, Hawaii. (<https://www.flickr.com/photos/star-environmental/32087834650/>).

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