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Brief Report

## An atoxigenic L-strain of *Aspergillus flavus* (Eurotiales: *Trichocomaceae*) is pathogenic to the coffee twig borer, *Xylosandrus compactus* (Coleoptera: Curculionidea: Scolytinae)

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### Summary

This study isolated and evaluated virulence of fungal entomopathogens of *Xylosandrus compactus* – an important pest of Robusta coffee in Sub-Saharan Africa. A survey was conducted in five farming systems in Uganda to isolate entomopathogens associated with *X. compactus*. Four fungal isolates were screened for virulence against *X. compactus* in the laboratory at  $1 \times 10^7$  conidia  $\text{ml}^{-1}$  where an atoxigenic L-strain of *A. flavus* killed 70%–100% of all stages of *X. compactus* compared with other unidentified isolates which caused 20%–70% mortalities. The time taken by *A. flavus* to kill 50% of *X. compactus* eggs, larvae, pupae and adults in the laboratory was 2–3 days; whereas the other unidentified fungal isolates took 4–7 days. The concentrations of *A. flavus* that killed 50% of different stages of *X. compactus* were  $5 \times 10^5$ ,  $12 \times 10^5$ ,  $17 \times 10^5$  and  $30 \times 10^5$  conidia  $\text{ml}^{-1}$  for larvae, eggs, pupae and adults respectively. A formulation of *A. flavus* in oil caused higher mortality of *X. compactus* pupae and adults in the field (71%–70%) than it

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