

# D3438: *Nomuraea rileyi* (Hypocreales: Clavicipitaceae) has potential for biological control of *Helicoverpa armigera* (Lepidoptera: Noctuidae) in Brazil

**Tuesday, September 27, 2016**

**09:00 AM - 05:00 PM**

📍 *Convention Center - West Hall C*

**Introduction:** *Helicoverpa armigera* Hübner (Lepidoptera: Noctuidae) is a prominent polyphagous pest in many global agricultural systems.

**Methods:** During field assessments, 589 larvae were collected from cotton crops in Bahia State, Brazil (12°06'39"S, 45°50'08"W, and 760 m altitude). During 38 days of observation in the laboratory, 106 larvae died due to fungal diseases (33.1%). *Helicoverpa armigera* larvae with fungal disease symptoms were placed in Petri dishes lined with filter paper moistened daily to facilitate pathogen sporulation. After sporulation, spores were sampled from the dead larvae bodies with a sterile needle and observed under a microscope for identification of the fungus.

The fungus was re-inoculated in healthy larvae to confirm pathogenicity. The entomopathogenic fungus was identified as *Nomuraea rileyi* (Farl.) Samson (Hypocreales: Clavicipitaceae) based on symptomatology, spores, and conidiophores.

**Results/Conclusion:** This is the first report on the natural occurrence in Brazil of *N. rileyi* infecting larvae of *H. armigera*, which is an exotic pest introduced in South America. The larvae sampled in this area were not subjected to any kind of control based on entomopathogenic fungus, but the high humidity recorded in the days leading the survey may have favored the development of fungal infections in larvae naturally present in the environment. Evaluations of biological activity of this fungus in healthy larvae are being developed to determine its pathogenicity. This fungus may have potential to be used for the control of *H. armigera* in Brazil.

doi: 10.1603/ICE.2016.109415

## Authors

**Marcus Alvarenga Soares**

*Universidade Federal dos Vales do Jequitinhonha e Mucuri*

**Victor Hugo Duarte Da Costa**

*Universidade Federal de Lavras*

**José Cola Zanuncio**

*Federal University of Viçosa*

**Fernando Hercos Valicente**

*Embrapa*

## View Related Events

**Session:** [231 Poster Session 2: Biological Control and Insect Pathology](#)

**Program:** [Poster](#)

**Day:** [Tuesday, September 27, 2016](#)