

D3427: Identification of *Helicoverpa armigera* nucleopolyhedrovirus in Brazil

Tuesday, September 27, 2016

09:00 AM - 05:00 PM

📍 *Convention Center - West Hall C*

Introduction: *Helicoverpa armigera* larvae were recently identified in Brazil attacking most of crop areas.

Methods: More than a 1,300 larvae has been collected in different locations, and observed in laboratory. About 30% of the larvae were parasitized and some dead larvae showed baculovirus symptoms. These dead larvae were macerated individually with distilled water and reinoculated in 6 day old healthy larvae, reared in laboratory. *H. armigera* larvae are susceptible to Baculovirus, however our major goal was to find different isolates and compare them with the commercially available Gemstar®.

Results/Conclusion: The comparative analysis of the sequencing for the genes LEF-8 e LEF-9 showed that the isolates found in Brazil are closely related to the isolates from Australia and India. All baculovirus isolates tested caused a good mortality rate in larvae of *H. armigera* third instar. However, lethal concentration 50 and lethal time 50 varied among these isolates. All of our isolates showed to be HearNPV and not HzNPV (Gemstar) according to the DNA sequencing. HearNPV -BR2 showed the best results for LC50 e LT₅₀. So, this is the first report of baculovirus isolates infecting *H. armigera* larvae in Brazil, and also the first report of *H. armigera* baculovirus isolates to be identified as HearNPV. Isolate BR2 is considered to be used in *H. armigera* biological control programs due to its characteristics.

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Authors

Victor Hugo Duarte Da Costa

Universidade Federal de Lavras

Marcus Alvarenga Soares

Universidade Federal dos Vales do Jequitinhonha e Mucuri

Francisco Andrés Rodríguez-Dimate

Universidade Federal de Viçosa

José Cola Zanuncio

Federal University of Viçosa

Fernando Valicente

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