

**Speaker:**

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Date: Monday, Jan. 04, 2021**Time:** 4:00 pm - 4:50 pm**Zoom:** 952-3324-4564**Passcode:** 835322**Title:**

“Laboratory evaluation of *Gryon pennsylvanicum* as a prospective biological control agent of *Leptoglossus zonatus*”

Abstract:

The western leaffooted bug, *Leptoglossus zonatus*, is a significant pest of tree nut crops in California. In pistachio, feeding damage can lead to epicarp lesions, kernel necrosis and stigmatomycosis, resulting in reduced crop quality and/or yield. Due to the pest’s rapid and often unpredictable migration into orchards, growers have relied extensively on pesticide applications to control *L. zonatus*.

Unfortunately, given the lack of effective monitoring tools available for *L. zonatus*, paired with grower risk to potential feeding damage, pesticide applications are often deployed at first perceived risk to a pest outbreak. Such methods in pest control can be both economically costly and environmentally unsustainable. Given the increasing demand for more sustainable pest management options for growers, we investigated the prospects of biological control to improve current integrated pest management programs for the pest. Biological control of *L. zonatus* was evaluated under laboratory conditions with prominent egg parasitoid *Gryon pennsylvanicum* to obtain important biological and demographical parameters. This study provides a baseline assessment on the life history and reproductive capacity of *G. pennsylvanicum* to help determine its prospects as a biological control agent of *L. zonatus*.