

# BIOLOGICAL AND CULTURAL CONTROLS FOR PEA LEAF WEEVIL

Pea leaf weevil, an invasive and costly insect of field pea and faba bean, can be managed using neonicotinoid seed treatments. Control alternatives are needed.

Dr. Meghan Vankosky, Field Crop Entomologist with Agriculture and Agri-Food Canada in Saskatoon, has been working on biological and cultural control for this pest. Since 2019, this work has been funded by the Pulse Cluster of the Canadian Agricultural Partnership AgriScience Program. Several potential control options have been evaluated.

**Beneficial insects.** Carabid beetles are commonly found in field pea and faba bean fields. Vankosky will determine whether these beetles eat adult pea leaf weevils and how this feeding impacts weevil populations.

**Trap crops.** Vankosky has found that both field pea and faba bean seedlings are attractive to adult weevils in the spring and the fall. Thus, these crops can be used as trap crops. The efficacy of insecticides and biopesticides against adult weevils in trap crops is being assessed using a cage study.

“This Pulse Cluster activity provided an opportunity to test ‘high risk’ approaches to weevil management,” Vankosky said. “In 2021, we will complete field work for this project and continue work to process samples and analyze data collected during the project. We will develop extension materials and begin to communicate our research results.”



*“Carabid beetles are important generalist predators that could help reduce pea leaf weevil populations by eating weevil eggs and adult weevils. We do not yet know the impact of carabid beetles on pea leaf weevil populations in the field. However, these beetles are important predators of a wide variety of potential crop pests.”*

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