



Each year a map showing the abundance of pea leaf weevil across Alberta is published.

DECODING PEA LEAF WEEVIL'S TRAVEL PLANS

University of Alberta entomologist Dr. Maya Evenden spent the past seven years determining where pea leaf weevil was active. Now, she wants to know more.

In a new project starting in 2021, Evenden will widen her deployment of the pheromone-based bait trap she developed starting in 2014. She now seeks to gain a better understanding of how and why weevils move from place to place. This exercise will also allow her to identify how the traps could perform better and continue to refine the design.

In the spring, weevils are reproductively active and orient to their primary hosts (pea and faba bean). In the fall, weevils are not reproductively active and disperse to overwintering locations.

Among Evenden's questions: How do weevils respond to cues and move in their environment during their spring and fall movements? What role do light and temperature play in their activity? Where does reproduction fit in? Does the crop somehow influence when pea leaf weevils disperse?

"An understanding of movement and response to cues in the fall could lay the foundation for the development of a trap cropping control system," Evenden said, "in which weevils are attracted to pheromone-baited trap crops in the fall and controlled before overwintering."



Dr. Maya Evenden's research on pea leaf weevil has included work on geographic distribution and monitoring tools. Management through beneficial insects is a new focus.