

BENEFICIAL INSECTS CONTROL PEA APHIDS THE NATURAL WAY

Submitted by Western Grains Research Foundation

Pea aphids are recognized as yield-threatening pests, but research shows their populations are nearly impossible to predict. Since forecasting is not realistic, it's even more important that growers and agronomists know how to identify this prolific pest and its natural enemies in the field.

While beneficial insect populations vary from year to year, beetles, tiny wasps and fly larvae typically provide biological control against pea aphids. In Alberta, Nevin Rosaasen, Sustainability and Government Relations Lead at Alberta Pulse Growers, said spraying for pea aphids is rare because beneficial insects do such a good job of keeping the pest population in check.

"There are many times when farmers see aphids above the economic threshold and elect not to spray because they also see predator insects like lady beetles, and the pea aphid populations drop substantially within days," he explained.

So what should you be scouting for?

Dr. Tyler Wist, Research Scientist in Field Crop Entomology at the Agriculture and Agri-Food Canada (AAFC) Saskatoon Research and Development Centre, said pea aphids can be difficult to see, especially in lentils.

While they can be red in colour, he noted that they are usually green, have six legs and long antennae. Some have wings and some are wingless. They are all female aphids that are born pregnant and lay live offspring that start feeding right



Dr. Tyler Wist shares information on controlling pea aphids the natural way in episode 21 of the Pests & Predators podcast. This pea aphid is shown on lentil. Photo courtesy of Dr. Tyler Wist.

away, which creates an instant pest army every spring.

Lady beetles – both larvae and adults – are important predators because they eat so many pea aphids each day.

Seeing lady beetles in a crop can also signal the presence of pea aphids. Adult lady beetles assess the crop when they arrive in the field and only lay eggs if they decide there is enough food for their offspring to survive there.

Soft-winged flower beetles, which can easily be confused for a cereal leaf beetle due to their red and blue colour, also consume pea aphids. Research is currently being conducted to better understand their impact.

Wist warned farmers that hoverfly larvae resemble very small slugs. They are green and yellow and under a microscope, their knife-like mouth can be seen piercing into an aphid,



Lady beetle larva is shown here on a faba bean plant. Lady beetles are beneficial insects that eat many pea aphids each day.

drinking the body juices and leaving a husk behind, he said.

On Episode 21 of the Pests & Predators podcast, Wist explained how quickly pea aphids can replicate, and why it's important to monitor economic thresholds. He also shared tips on how to encourage beneficial insect populations.

Wist advised scouting around the flowering stage for any insects that are in your field. "Know what you've got," he said. "Have a close look at the beneficial insects, go to your field guides and make yourself aware."

Rosaasen added that it's also important to talk to neighbours and local agronomists to see what pest populations may be of concern in your fields.

More Pests & Predators podcast episodes and other helpful resources can be found at www.fieldheroes.ca/resources.