

Pea weevil recovery requires early detection

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Even with serious infestation, pea leaf weevils generally eat less than 20 percent of the foliage and the plants can survive that level of damage. | File photo

Pea leaf weevil is munching its way through pea crops to the point where at least one farmer near Fort Macleod, Alta., is considering plowing up the stand.

Hector Carcamo, an entomologist and senior researcher at Agriculture Canada in Lethbridge, advises against that.

“Never plow your field (of peas) even if it looks this bad,” said Carcamo while standing in test plots on the Farming Smarter research site near Lethbridge.

Even with serious infestation, pea leaf weevils generally eat less than 20 percent of the foliage and the plants can survive that level of damage.

“The damage caused by the adults is very, very rarely an issue in terms of yield,” said Carcamo.

It is the larva rather than adult weevils that really do the damage. The white, C-shaped grubs can be found inside pea nodules once a plant is pulled out for examination.

Pea leaf weevils feed only on peas and fababeans.

“They’re very, very picky about what they eat,” he said.

“They will feed on the nodules and they have the potential to eat 70, 80 percent of the nodules, which could have an effect on nitrogen, soil fertility and ... crop nutrition.”

Use of treated seed is the recommended way to deal with them. Later applications of foliar insecticide will not protect yield.

However, even seed treatment is not a perfect solution.

“We actually know from greenhouse and lab studies that the plants that have the seed treatment will still have some damage,” said Carcamo.

“There’s only about a 50 percent reduction in the level of foliage damage or protection and the main reason that the insecticide works to protect the yield is that it has an effect on the egg laying of the adults.”

If no seed treatment is used and weevils munch heavily, options for farmers are limited, he added. There is potential for yield loss if more than 30 percent of seedlings are damaged.

“The only thing I can suggest, and this is an experimental treatment, would be to apply nitrogen to the soil,” he said.

Some studies have shown that adding additional nitrogen at pulse crop planting can reduce weevil damage.

“It probably sounds not very smart to be adding nitrogen to a pulse crop when one of the reasons why you want to grow it is because of nitrogen fixation,” said Carcamo.

However, if damage is heavy, “it’s a desperate measure” that might have some effect.

The weevil has expanded its range and can now be found as far north as Edmonton, and is making a pest of itself in the south-central region around Lacombe.