Heavy Alfalfa Weevil, Pea Aphid Populations Seen Across State

COLUMBIA, MO.

The silvered tops of alfalfa around Missouri tell the tale of a bug that just can't eat enough. The alfalfa weevil hit the crop hard this spring, eating its way through the leaves of alfalfa with potential to ruin its forage value.

"Alfalfa weevil defoliates the plant, and if populations are high enough they can take all the leaf material off the plant, leaving only the stems," said Wayne Bailey, a University of Missouri Extension entomologist. "We end up with a field that's what we call 'silvered,' where all the leaf material is gone and we just have remnants of leaf veins that turn silverish brown."

That's a big problem for farmers. Since most of the protein is in the leaves, the leftover stems don't provide much feed value for a herd.

Pea aphids are adding to that damage. The green insects, which are the size of a pinhead, puncture alfalfa with piercing/sucking mouthparts to drink its juice.

"With high populations of pea aphid we see a yellowing of the field and a loss of quality to the alfalfa," Bailey said. "They are more of a spring problem, and while they won't kill this 2-year old stand, they can cause a new stand to die."

Beneficial insects can keep smaller populations of pests at bay. Ladybird beetles can eat both alfalfa weevils and aphids, chomping through up to 50 aphids per day. Parasitic wasps also will kill these pests by stinging them and laying eggs in their abdomens. When the eggs hatch, the emerging wasp larvae eat their hosts.

"If we have a population of ladybird beetles in the field, we would hesitate to spray because they often could bring an aphid population under the threshold level," Bailey said.

It only takes a five-gallon bucket and a sharp pocketknife to figure out whether an alfalfa field has surpassed a pest threshold level – the number of insects where it becomes economical to spray pesticides.

To conduct this count, take a white five-gallon bucket into a field and cut five plants per location until you reach 25 total alfalfa plants. Cup your hand over the top of the plant to keep from dislodging the insect, cut the stem off at the base and shake each plant into the bucket.

"If you have 6-10 inch alfalfa, one alfalfa weevil or 70 pea aphids per stem puts you at threshold and you need to treat your field," Bailey said. "You want to look at the size of the larvae and the size of the alfalfa to determine your insect threshold."

Harvesting the forage crop could be an option if the alfalfa has reached the 10th bloom stage. However, the insects will still be there when the alfalfa grows back.

"If we come in and cut a field down to allow new growth and still have an insect population present, we need to treat a field because they will feed on the new tillers as they come out of the soil," Bailey said. "The weevils will hold back the growth of the alfalfa and its competitive nature, allowing weeds to come in and often take out the stand."

Many pesticides, including pyrethroids, provide good control of alfalfa weevils. Δ