

IN THE FIELD

Last Private Applicator Certification in Knox County

<https://go.unl.edu/2020pat>

March 12
1:30 pm

Walter Larsen Senior Center
Creighton

Management of Defoliating Insects in Nebraska Soybeans

Many defoliating insects may be found in Nebraska soybeans. Estimating defoliation levels in fields is the best way to decide whether it will pay to treat for these insects.

We saw several different insects in parts of Nebraska causing defoliation in soybeans in 2019. These included:

- woolly bear caterpillars
- green cloverworms
- grasshoppers
- bean leaf beetles
- painted lady/thistle caterpillars
- silver-spotted skipper caterpillar
- Japanese beetles

Most of these insects are sporadic pests whose numbers vary from

Estimating Insect Defoliation in Soybeans

- 1 Remove leaves from top, middle and bottom of plant.
- 2 Remove the highest and lowest defoliated trifoliate. Keep other leaflet.
- 3 Repeat for the middle and bottom leaves on the same plant.
- 4 Repeat 1 - 3 on 10 more plants.
- 5 Repeat at 4 more locations and take average defoliation of all 40 leaves.

Levels of soybean defoliation. Injury is often over-estimated.
NebGuide G2259

Thresholds: Vegetative Stage: 30%
Reproductive Stage: 20%

EXTENSION

Process for sampling soybean leaves to assess defoliation. (Figure by Justin McMechan)

year to year and field to field. Some are migratory insects which do not overwinter in Nebraska, such as the thistle caterpillars and green cloverworms. Some are expanding their range in Nebraska, such as the Japanese beetle.

Regardless, when we have a mix of different insects feeding on soybean leaves, the best way to assess the need for insecticide treatment is to estimate the defoliation level from all insects present. In soybeans insecticide treatment is recommended when insects are present and damage is expected to exceed 30% defoliation in vegetative stage and 20% in reproductive stage soybeans. For more information see [Managing Soybean Defoliators](#), NebGuide G2259. In addition to defoliation levels it is also important to identify which insect species are present, their size and abundance. This information will help you decide which insecticide product and rate should be used if treatment is needed.

Estimating defoliation can be difficult without practice. The chart above provides guidance on how to more accurately estimate defoliation in soybeans.