

June 21, 2019

PAINTED LADY DAMAGE OBSERVED

The painted lady butterfly larvae have been observed defoliating our soybeans this past week. Another name is the thistle caterpillar. The fields of choice are the taller or more advanced soybean fields. One interesting habit they have is as you approach them and clap your hands really loud and yell they will rear up at you!

The main purpose of this article is to give us a signal we will need to scout soybeans very carefully later this year in the podding stages with the second generation. The larvae will pupate in the soybean field or field edges and then a second generation of painted lady butterflies will emerge.

This insect does not overwinter in Nebraska, but migrates from the southern U. S. and Mexico in the spring. Robert Wright, UNL entomologist, said in our CropWatch newsletter last week, high populations of painted lady butterflies were reported earlier in the year in San Diego and moved north from there into the California Central Valley.

The thistle caterpillar normally feeds on thistles, sunflowers and related plants but can also feed on soybeans. We have periodically seen them in Nebraska soybeans. The caterpillars have a yellow stripe down the length of both sides of the body and spiny hairs on the body. They can reach up to 1.5 inches in length at maturity. When they feed they web together leaflets. For a picture of them go to: <https://cropwatch.unl.edu/2019/thistle-caterpillars-soybean>

Painted lady butterflies lay single eggs on soybean plants with eggs hatching in about seven days. After hatching, larvae will feed for two to four weeks with 97% of their consumption occurring in the last two larval instars. Larvae are typically found in the upper canopy with damaged plants usually occurring at the edge of a field. The larvae form webs by tying leaves together, creating a protective area there they can feed. Larvae will pupate over a period of 7-17 days.

An accurate estimation of soybean defoliation is critical for determining if an insecticide application is necessary. Pictures are very helpful on this and can be found at: <https://cropwatch.unl.edu/2018/large-populations-painted-lady-butterflies> Too often there is a bad spot in a field and we are too quick to spray and it is not warranted. This article tells scouts and farmers how to critically analyze percent defoliation.

There are usually two generations in our area so it will be most important to scout during podding stages on our soybeans. Early season defoliation often is a breakeven proposition at best to make a separate trip across the field to spray.

Estimate defoliation levels in several parts of the field. Assess defoliation over the whole plant canopy, not just the upper leaves. In vegetative (pre-flowering) stages, consider treatment if the insects are present and feeding and defoliation will exceed 30%. In pod-forming or pod-filling stages, consider treatment if the insects are present and defoliation will exceed 20%. These percentages can vary 5% to 10% according to the stage or type of insect(s) present, environmental conditions, the specific stage of the soybean, and the size and condition of the canopy.



Several foliar insecticides labelled on soybeans have activity against these and other caterpillars. See the Section of Registered Insecticides for Soybean in Nebraska Extension's Guide for Weed, Disease, and Insect Management in Nebraska (EC 130) for specific information on products, rates and restrictions.

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