

Wildcat District

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Soybean Seedlings Pests

Lush young soybeans in later planted and double-cropped fields are at a prime point for insect damage. While soybeans have a remarkable ability to compensate for leaf loss later in the summer, young soybeans are at risk of being stripped clean before they even have a chance to get going. No-till double-cropped soybeans, those planted directly in cover crops, and soybeans next to drying down corn fields are especially at risk for insects quickly becoming an issue. Some species of pests can hatch in huge numbers and damage a crop in a matter of a couple days. This is why it's important to catch them in the act and to know what to be looking out for. Insects are often much heavier in certain parts of field. Scouting needs to be in multiple places throughout the field as some insects tend to collect at the field's edge. At times it can be economical to just spray a few outside rounds or specific edges of the field.

Fall Armyworms are a well-known pest to Midwest farmers. The moths start blowing in from the southern states in the spring and begin to lay eggs in the green wheat. When that dries down, the double-cropped soybeans make for a perfect meal replacement, though moths will lay eggs directly into soybeans as well. The fall armyworms have a yellow "Y" on their faces and are the most likely of the armyworm types to be in soybeans. Some years we'll see very few, while some years we'll have 'outbreaks' of armyworms that are a problem in nearly every crop and field. Treatment thresholds are the same as other worms at around 10 per row foot or 25% defoliation.

Garden Webworm gets about 1 inch long and are smaller than most of the other webworms or armyworms, but yet are surprising quick when disturbed. They can be different shades of green but will have three dots in a triangle on each body segment. The mature adult is a brown inconspicuous moth. Garden webworms tend to hang out on the undersides of leaves in a thin webbing as they skeletonize them. They can be seen from late May to September and will likely have another generation this year. Treatment thresholds are similar to thistle caterpillar and green cloverworms at around 10 per row foot or 25% defoliation.

Thistle Caterpillars look very different but have a similar lifecycle as garden webworms. They vary in color of yellow and green to very light almost white, however, they all have branching spines on each body segment that makes them easy to identify. The adult is the commonly recognized painted lady butterfly. The thistle caterpillar skeletonizes leaves like the webworms do, but also fold up the leaves in a webbing to form a protective cup while they feed. They have multiple generations per year and can be seen most of the growing season. Green Cloverworms are usually more of a problematic defoliator later in the summer. These worms are identified by their two yellow stripes down their sides. Treatment threshold is around the same as thistle caterpillars or webworms at 10 per row foot or 25% defoliation. Cloverworms sometimes explode in populations, but then a parasitic fungus takes off and kills many of them. The fungus will turn the cloverworms white and kills them in just a couple of days. So far, we've discussed soft bodied leaf defoliators but bean leaf beetles can be a problem for every part of the soybean. Bean leaf beetles overwinter as adults under residue or on field edges. The adult beetle will be anywhere from dark red to light gold but all will have a triangle and 6 black spots. After feeding on soybeans or other plants the adult will lay eggs near a soybean stem. After a week the eggs hatch and the wireworm larvae feed on soybean roots for a month before pupating and emerging as an adult beetle. There are two generations per year. The first generation can become a problem because the soybean can't take as much feeding pressure and the beetle will feed on the cotyledon, threating the whole plant. However, some years the first generation acts as a springboard for a huge second generation that occurs around the beginning of September. Treatment threshold for first generation is 7 beetle per row foot. The secondgeneration treatment threshold is much higher at 50 per row feet but in this case the beetle can directly reduce yield when they feed on young green beans. Seed treatments can help with early season injury.

There are a number of pests in soybean fields but these are some of the common early offenders. K-State Research and Extension has many publications to help identify crop pests, discuss treatment thresholds, and give pesticide recommendations. Photo credit and much of the information comes from K-State Research and Extension Entomologists Holly Davis, Jeff Whitworth, and Raymond Cloyd. Please give me a call at any Wildcat District Extension office if you have field pests you are concerned about.



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