



End of Year Corn Rootworm Checklist

Corn rootworms are always something we need to keep in mind, particularly in a corn after corn system. Corn rootworm management always begins the year prior to the current cropping season. The best way to help determine the risk of corn rootworm injury the next season is by counting adults during the months of July and August by using sticky traps. How to use the sticky traps and management strategies are outlined here. If counts were not taken last year, we cannot turn back the hands of time but there are some questions that may assist in determining the risk of larval injury.

- Was the corn crop from last year planted late, relative to those in the neighborhood?

Corn rootworm females are attracted to green silks, so fields that are in brown silk will be donor fields to those with green silks.

- Was the field planted to a later maturing hybrid than those planted in the neighborhood?
See above.
- If the field was planted to soybeans last year, was there significant volunteer corn in the field?
Volunteer corn can attract corn rootworm females, resulting in eggs laying in soybean fields, resulting in injury to next seasons corn crop.
- Has there been injury to first year corn following beans in the past?

In some areas, there are populations of western corn rootworms that will forage in soybean fields and deposit eggs in soybean fields, resulting in injury to corn the following season. The northern corn rootworm populations can have a significant portion of the population where the eggs don't hatch for two years, this is called extended diapause. In either situation, injury can occur to first year corn following soybeans.

- If you don't have counts for the field in question, were the population estimates for the area high?
While not a replacement for counts in each field, if the overall population in the area is high and the field in question was planted late or to later maturing product, it may result in higher risk of injury. However, each field is unique and as such a management plan should be developed for each field

If the answer was yes to any of these questions, the risk of corn rootworm larval injury may be higher than if the answer was no.

Options to manage this risk fall into 3 broad categories, corn products with a pyramid of targeted traits for corn rootworm, soil applied insecticide, and crop rotation away from corn. A soil insecticide can be paired with above ground traitled products has the additional benefit of not putting resistance pressure on the corn rootworm complex as it is a different mode of action than the traits. Corn is the only agronomic host of the corn rootworm larvae, so planting any crop other than corn will result in larval mortality. When a field has significant risk for larval damage, in most situations, crop rotation is the most impactful management strategy.

While larval injury can result in lodged corn, not all lodging is the result of corn rootworm injury. To determine if corn rootworm injury is the culprit, digging up the lodged plant and washing the roots to determine the root injury. Small scaring or minimal root pruning is normal plants that have corn rootworm traits as the larvae must ingest the root to obtain the Bt toxin.

Legal Statement

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

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