

Rootworm Digs Reveal Feeding Pressure— Plan Now for 2026

As corn progresses through late vegetative to early reproductive stages, now is the optimal window to assess root health and gauge corn rootworm (CRW) pressure. Several fields across the Upper Midwest are showing signs of moderate to severe feeding, with symptoms like goosenecking, uneven growth, and poor root anchoring becoming more visible.

How to Perform a Rootworm Dig

A simple root dig can reveal a lot about unseen insect pressure. Here's how to do it effectively:

- Dig 5–10 plants per field from representative areas, especially where standability or growth is uneven.
- Soak roots in water for 1–2 hours to loosen soil.
- Thoroughly wash roots using a garden hose to expose all nodal roots.
- Rate the damage using the **Iowa State 0–3 Node-Injury Scale**:
 - 0.00 = No damage
 - 0.25 = Economic threshold ($\frac{1}{4}$ node equivalent eaten)
 - 1.00 = One full node of roots eaten (severe)
 - 2.00+ = Two or more nodes eaten (very severe)
 - Ratings above 0.50 often indicate significant risk of lodging and yield loss

Note: Missing, pruned, or brown-scarred roots across crown and nodal zones are signs of active rootworm feeding. Evaluate brace root development as well—poor support may indicate pressure even before goosenecking appears.



Left is SmartStax® PRO,
right is SmartStax®.

7 year continuous corn
on corn field in NE Iowa.

Management Recommendations for 2026

If node injury scores exceed 0.25, or if standability is visually affected, the field is at risk. Use these strategies to get ahead of 2026 pressure:

- **Rotate out of corn** – Rotation is the most effective CRW management tactic, especially in first-year corn situations. However, rotation-resistant populations may persist in some areas.
- **Select stacked trait hybrids** – Choose products with multiple CRW traits (SmartStax®, SmartStax® PRO, VT4PRO). Be cautious with continuous use of a single trait technology.
- **Consider soil-applied insecticides** – On traited hybrids in high-pressure fields, in-furrow or T-band applications of insecticide (e.g., Force®, Aztec®, Capture LFR®) may add additional suppression.
- **Avoid back-to-back CRW trait planting** – Rotate between trait platforms to help delay resistance development.
- **Scout for beetles later this season** – High beetle populations in July/August indicate potential for heavy larval pressure in 2026.
- **Evaluate performance by hybrid** – Keep notes on root integrity and standability. Even within traited hybrids, genetic background plays a big role in root strength and tolerance.
- **Monitor trait performance** – If traited products show 0.50 or higher node injury, it may indicate trait resistance in the local rootworm population.

Root digs offer a clear picture of what's happening below ground. Use them now to drive better decisions in hybrid selection, rotation planning, and CRW trait deployment for 2026.

References:

- Iowa State University Extension. (2023). *Corn Rootworm Management*. <https://crops.extension.iastate.edu>
- Gassmann, A. J., et al. (2020). *Field-evolved resistance by western corn rootworm to multiple Bt toxins in genetically engineered maize*. Pest Management Science.