



# Root Dig Tips and Watch-Outs

Root digs are key for assessing how well corn rootworm (CRW) management practices worked, but it's important to conduct them the right way. Here are some tips for a successful root dig and things to avoid.

## Three Phases of a Successful Root Dig

### 1. Preparation

- Select sampling sites based on field patterns and damage symptoms
- Wait until mid-July to early August when root damage is most visible
- Bring proper tools: shovel, trowel, washing bucket, root rating scale guide

### 2. Digging and Extraction

- Dig in a circle 6-8 inches away from plant stem to avoid damage
- Remove entire root mass with surrounding soil to 12-inch depth
- Gently lift plant and roots while maintaining root system integrity

### 3. Root Washing and Rating

- Soak roots to loosen soil, then gently wash with moderate water pressure
- Score roots using a 0-3 Node-Injury Scale (NIS) or the Iowa State 1-6 scale
- Document results with photos and written records for each plant



**Contact your Syngenta seed seller or local agronomist to discuss a plan for managing corn rootworm on your operation.**

## Three Root Dig Watch-Outs

### 1. Poor Timing

- Don't dig too early (before V6 growth stage) — damage won't be fully visible
- Don't wait until after harvest when roots are deteriorated
- Avoid digging right after heavy rain — soil will be very tough to dig

### 2. Improper Digging Technique

- Don't cut straight down right next to the plant; this can damage roots
- Don't pull the plant straight up; loosen the surrounding soil first
- Avoid the temptation to rush, you'll risk breaking or tearing roots

### 3. Inaccurate Assessment

- Don't rate roots while covered in soil — clean them properly first
- Don't confuse other root damage (disease, wireworm) with CRW feeding
- Don't rush through ratings — take time to examine all nodes carefully

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