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RENK • SEED

Managing Hail Damage in Vegetive Growth Stage of Corn: What to Watch and When to Act

Hail during the V4 to V7 stages of corn development can leave fields looking rough—but corn has a remarkable ability to recover if managed correctly. At this point in the season, the growing point is still at or just emerging above the soil surface, which means plants can often regrow if the damage isn't too severe.

Understanding the Damage

- **Defoliation:** Yield impact depends on how much leaf area is lost. At V6, 50% defoliation typically results in only about a 5% yield reduction.
- **Stem Bruising:** While less visible, bruising can create entry points for pathogens like Fusarium or Anthracnose.
- **Stand Loss:** If growing points are damaged or destroyed, plants will not recover. Reassess stand health 3–5 days after the storm.

Fungicide Considerations

When hail strips leaves or bruises stalks, it exposes corn to increased disease risk. While fungicides won't repair damage, they may help **reduce disease development** in vulnerable tissue.

- **Scout 4–7 days post-storm** for signs of Gray Leaf Spot, Common Rust, or Anthracnose.
- **Assess hybrid disease tolerance** and environmental conditions—warm, humid weather increases disease risk.
- **R1 is the preferred timing for fungicide applications based on return on investment.** Applications made earlier, especially before significant canopy development, are less likely to pay off unless disease pressure is already present.

Management Tips

✓ Document hail damage and defoliation levels by field.

✓ Monitor for plant regrowth and disease symptoms during the week following hail.

✓ Focus fungicide decisions on hybrid susceptibility, current disease presence, and forecast conditions.

✓ Be aware of stalk integrity—bruised plants may be at higher risk later in the season.

Sources:

- Iowa State University Extension. "Estimating Yield Loss from Hail Damage in Corn."
- University of Nebraska-Lincoln. "Corn Response to Hail Injury."

Hail-Damaged Soybeans in June: What's Recoverable and What's Not

June storms that bring hail can cause varying levels of injury to soybean fields—ranging from cosmetic to catastrophic. The key to effective management is understanding soybean physiology, staging accurately, and allowing enough time to assess regrowth before making decisions.

How Soybeans Respond to Hail

Soybeans are surprisingly resilient due to their ability to branch and regrow from axillary buds. The extent of damage depends on both **growth stage** and **type of injury:**

- **Before V3:** Plants can often recover well if the main stem is cut but cotyledons or lower nodes remain intact.
- **V4–R1:** Damage to upper leaves, petioles, or stems above the first node may slow growth but usually doesn't reduce final stand.
- **Stand Loss:** If hail shears stems below the cotyledons, those plants will not recover. Replant considerations may be warranted if **final stand drops below 80,000 plants/acre** in wide rows or 100,000 in narrow rows.

Scouting and Decision-Making

- **Wait 4–7 days** post-storm to accurately assess regrowth.
- **Count viable plants**—those with at least one healthy growing point or leaf.
- **Inspect for lesions or stem bruising,** which can lead to secondary infections like Phytophthora, Rhizoctonia, or bacterial blight.

Fungicide and Insecticide Use

Unlike in corn, fungicide applications following hail in soybeans offer **limited consistent ROI** unless disease is actively spreading. However:

- **Fungicides may help reduce disease infection** if conditions remain wet and humid.
- **Insecticide use** should be evaluated case-by-case. Hail can trigger flushes of bean leaf beetles or grasshoppers, which may be attracted to damaged tissue.
- **Tank-mix only if thresholds are met** to avoid unnecessary cost or resistance issues.

Recovery Outlook

Soybeans can branch aggressively and **compensate for early-season leaf and stem damage** if moisture and nutrients are adequate. By mid-July, many storm-damaged fields appear indistinguishable from unaffected ones—especially with uniform stands and timely post-storm heat.

Sources:

- University of Minnesota Extension. "Managing Hail-Damaged Soybeans."
- Iowa State University. "Hail Damage in Soybeans: Assessment and Management."