Agronomy Profile



Hail Damage

Overview

Hail storms can have varying impacts on soybeans each year. Accurately assessing damage can help you estimate potential yield loss.

What you should know

- Wait 3-5 days before assessing hail damage. This allows for regrowth on healthy plants for a more accurate evaluation.
- For soybeans in the vegetative stage, the crop insurance industry counts the unifoliate node and all nodes above that with a fully developed trifoliolate leaf present. A trifoliolate leaf is considered fully developed when it unrolls and leaflet edges no longer touch other portions of the leaf. For example: a plant with unifoliate leaves and a fully developed trifoliolate leaf at a node above the unifoliate is considered V2.
- Leaf defoliation can reduce yield by decreasing the leaf area needed for photosynthesis. Estimate yield loss by calculating the percent of leaf area removed from the plant or leaf area that is no longer green. Evaluate leaves on plants in multiple sites. Leaf area loss during vegetative stages of growth has minimal impact on yield.

| Soybean Stem Damage Assessment | | | | | | |
|--------------------------------|---|----|----|----|----|-----|
| Stage of Growth | Percentage of Nodes Cut Off/Broken Over | | | | | |
| | 10 | 20 | 30 | 40 | 50 | 65* |
| Percent Yield Loss | | | | | | |
| Vc-Vn | 1 | 3 | 4 | 6 | 9 | 18 |
| R1 | 2 | 4 | 6 | 9 | 11 | 20 |
| R2 | 3 | 6 | 8 | 11 | 13 | 23 |
| R2.5 | 4 | 9 | 12 | 16 | 20 | 32 |
| R3 | 6 | 12 | 17 | 22 | 28 | 41 |
| R3.5 | 8 | 16 | 23 | 31 | 39 | 53 |

*If more than 65% of nodes are cut off or broken over, it is impossible to predict the percentage loss that may result.

For more information, contact:



www.nutechseed.com 1-888-647-3478

Action steps

- 1. **Assess stand loss:** Evaluate fields after early season hail storms to determine damage and whether a replant is needed. For stand losses and pod damage later in the season, refer to the *Soybean Loss Adjustment Standards Handbook* from the USDA Risk Managment Agency.
- 2. Estimate damage to stems: To determine yield loss due to stem damage, evaluate both stems cut off and stems broken over. (See table.)



- Assess hail damage to soybeans after storms to determine if a replant is required. Allow a few days for plant to recover and regrow.
- Evaluate stem damage in order to estimate yield loss.

NOTES: