

# Cornell Cooperative Extension

## Northwest NY Dairy, Livestock and Field Crops Program

### \*\*\*CROP ALERT\*\*\*

August 10, 2018

Mike Stanyard & Jodi Letham, Regional Agronomists, Cornell Cooperative Extension

### Soybean Disease Issues

#### White Mold in Soybeans

With the on-off rainfall and consistent humidity these past few weeks we were bound to see some white mold in these moist conditions. The white mold spores entered through the early flowers and now are systemic and killing the plants. Infection begins with a water soaked lesion originating at a node. If the lesion stays wet, it can become overgrown with white mold (see picture). The sclerotia are formed inside and outside the stem within the cottony white mold mass. Sclerotia are dark, irregularly shaped bodies  $\frac{1}{4}$  to  $\frac{3}{4}$  inches long containing hardened mycelia. Disease can spread directly to other plants by contact with the moldy tissue. Fungicides will not help plants that are already infected.



#### Fusarium Wilt is Showing Itself



Fusarium wilt has been confirmed in soybeans in Niagara, Seneca, and Livingston County. This disease isn't new, but it doesn't appear every year. It is difficult to diagnose or differentiate from other diseases or stresses. Infection is favored by cool temperatures and wet soils during vegetative growth stages. Plants are infected during early reproductive stages, but symptoms appear later in the season, and are exacerbated by hot, dry weather, when infected plants begin to wilt. In addition to wilting, symptoms include brown discoloration of the vascular system in the roots and stems, and foliage may become chlorotic and defoliation may occur (see picture). Reducing soil compaction, delaying planting until soil temperatures are favorable for seed germination, crop rotation and seed treatments applied to high quality seed are good management practices for minimizing losses to Fusarium wilt. For more information:

<https://fieldcrops.cals.cornell.edu/soybeans/diseases-soybeans/fusarium-wilt/>

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#### Brown Stem Rot



In addition to the two diseases mentioned previously, why not add another to our watch list! BSR Stems will have a reddish-brown discoloration in the pith (center of the stem), which may only be found at the nodes. Although it appears healthy in most cases, the stem exterior of severely infected plants will look olive green and shiny. Leaf symptoms include interveinal chlorosis and necrosis of newest leaves. Symptoms may not occur on all plants. Root rot is typically not evident in plants with brown stem rot, unlike roots with Sudden Death Syndrome (SDS). *Photo source: Illinois IPM*



#### Downy Mildew – Jaime Cummings, NYS IPM Program

In general, we have never recommended spraying fungicides for downy mildew because it is typically more of a cosmetic disease that doesn't tend to result in noticeable yield loss. And, most of our foliar fungicides available for soybeans are not labeled for downy mildew and would have very limited effect, if any on downy mildew because it is an oomycete. There is limited evidence that strobilurin fungicides may have limited efficacy, but, again, many aren't actually labeled for downy mildew in NY. Here are a few references for anyone who might want further info:

<https://www.ag.ndsu.edu/cpr/plant-pathology/soybean-downy-mildew-07-30-15>

<https://plantpathology.ca.uky.edu/files/ppfs-ag-s-03.pdf>



Photo credit: Mike Stanyard

### Cornell Hemp Research Team Field Day

**When:** Tuesday, August 14, 2018

**Where:** Cornell AgriTech Fruit and Vegetable Research Farm, 1097 County Road 4, Geneva, NY 14456

**Research and policy updates:**

10:00 Gary Bergstrom, Plant Pathology and Plant-Microbe Biology, Cornell – Hemp Diseases

10:10 Alan Taylor, Horticulture, Cornell AgriTech – Hemp seed quality, coatings, and seed certification

10:20 Tim Sweeney, NYS Ag and Markets – Update on the NYS Hemp Pilot Program

10:30 – 12:00 Field tours of three trials, 30 min each:

**Stop A: Cultivar Evaluation Trial** – Crittenden North Farm, (Viands and L. Smart labs) and **Insect Pest Update** (Elson Shields lab)

**Stop B: Pollination Distance Trial** – Research North Farm (L. Smart) and bee survey update (Katja Poveda lab)

**Stop C: CBD Production Trial** – Gates West Farm (L. Smart and C. Smart labs)

**No charge. Registration required.** Click here: [Cornell Hemp Research Team Field Day Registration](#)