

Agronomic Directions

A Newsletter of Cornelius Seed®. Read it. Profit.

July 4, 2014

www.corneliusseed.com

1-800-218-1862

Assessing Crop Damage from Wind and Flooding

Adapted from ISU's Integrated Crop Management News

"Knee high by the 4th of July" isn't referring to our corn crop this year, but rather the water level our fields have seen the past few weeks. Storms hit the Midwest hard this past week and damaged crops should be assessed to determine how extensive the damage is in the next week or two.

Flooding: Corn survival can be expected with flooding up to four days under air temperature less than mid-60 degrees F; about two days when temperatures are in the mid-70 degrees F; and one day when temperatures exceed 80 degrees F. Soybean may be slightly more tolerant of flooding with little stand reduction if flooding recedes within two days through significant stand losses when flooding exceeds six to seven days.

Flooded crops are more susceptible to diseases such as physoderma or crazy top in corn or pythium and phytophthora in soybean. Additionally, sediment buildup or 'caking' on leaf tissue can limit leaf function causing diminished growth and development.

Wind Damage: Corn is in its rapid growth period, in which lignins in the stalk are out-paced by plant growth. Once lignin reinforced stalks are achieved in the late vegetative stages, the risk of green snap is increased. Our saturated soils this year have also limited root growth, causing root lodging as well.

Plants with minor leaning will straighten with subsequent growth. Root lodged plants will become upright by 'goose necking.' In both cases, if plants have regained upright posture by pollination, pollination should occur with minimal loss of yield potential. Plants that have not regained upright posture by pollination could have diminished pollination due to neighboring plant leaves covering exposed ear silks.

Management: Following flooding, wind and hail damage, crop scouting is critical to assessing disease development due to crop damage and additional weed pressure from prolonged open canopy caused by defoliation. Fungicide applications, regardless of plant injury, should be made based on disease presence, conducive environmental conditions and genetic predisposition for disease susceptibility. Damaged crops will likely have a greater risk of root and stalk/stem rots. Scouting should be used to identify rots. Afflicted fields should be considered for priority harvesting to minimize lodging and harvest losses. Crops around the margin of flooded areas may have delayed growth and development resulting in the possibility of slightly wetter grain moisture at harvest.



Goose necking in corn. 2012 photo by Mark Licht; western Iowa.

White Mold in Soybeans (*Sclerotinia Stem Rot*)



White mold or Sclerotinia stem rot (*Sclerotinia sclerotiorum*)

White mold development is favored by cool, cloudy, wet, humid weather at flowering. The disease is more problematic in soybeans in high-yield environments where high plant populations, narrow row spacing and an early-closing canopy are commonly used. No single management strategy is 100 percent effective at eliminating white mold, and in-season fungicide options for at-risk fields are limited.

The fungi may survive in the soil for up to 10 years. So if you have a history of white mold, be sure to select our varieties with good white mold disease ratings.

