



GDU Update  
Soilborne Soybean Diseases  
Corn Rootworm Scouting  
IDC in Soybeans

GDU Update April 22 - July 11			
LOCATION	TO DATE	VS NORMAL	NORMAL
Elbow Lake	1092	-41	1133
Fergus Falls	1034	-99	1133
Herman	1203	+18	1185
Wahpeton	1197	+29	1168
Evansville	1078	-47	1125

GDU  
Calculator

## Favorable Conditions for Soil Borne Soybean Diseases

With Excessive rainfall and saturated soils, conditions have become

favorable for soil borne soybean diseases such as Pythium, Phytophthora, and Rhizoctonia. The primary protection window for seed applied fungicides is up to 30 days after planting. As we move beyond this window and with soils still saturated, disease incidence could likely increase. If you suspect a soil borne disease in your field, we highly recommend sending a sample in to a diagnostic lab for proper disease identification because symptoms can overlap with these diseases.

### **Conditions that favor Pythium & Phytophthora:**

- Poorly drained and compacted soils
- Very early planting, especially if followed by periods of cold stress
- Periods of heavy rainfall
- No-till
- Poor quality seed
- Plant Stress

### **Conditions that favor Rhizoctonia:**

- Delayed emergence
- Moist soil but not necessarily saturated
- Herbicide injury
- Soil types with high amounts of organic matter
- Warm, wet soils in late May & June

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## **Early Season Corn Rootworm Scouting**

Larval injury can produce several visual symptoms. Plants may be stunted, chlorotic, wilted, or show signs of nutrient deficiencies because of root feeding. The most obvious sign of root injury during the season is lodging and goosenecking that occur following heavy winds, and yield losses may occur at the end of the season. During an ideal growing season or in high-quality soils, economic levels of feeding injury may not be visible aboveground.



Corn Rootworm larvae are small and soft-bodied, so they rely on pore spaces in the soil profile for movement. If pore space is restricted, such as in soil that has been compacted by wheel traffic, or highly saturated, larval movement will be reduced.

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## Iron Deficiency Chlorosis

Typically, the end of June is around the time our first post-herbicide applications are due to be sprayed, and we're monitoring our soybean fields a little closer as some areas start to have a yellow cast to them. Iron Deficiency Chlorosis (IDC) is a problem due to varying degrees in certain areas nearly every year. Soil generally has iron as an adequate component of its makeup; however, there is not enough soluble iron in the plant, the symptoms of interveinal yellowing with leaf veins remaining dark green will start to show and persist until the iron deficiency within the plant is met and recovery starts to occur. Soil properties of pH, carbonate and salt level, along with poor field drainage all amplify the chlorotic IDC symptomology.

The mid-June extended wet, saturated, 10-day or more window we experienced really put our soybean root health and development at a standstill. We started seeing some yellow areas early to mid-June. Not all areas are IDC areas; some are likely due to saturated soils/lack of oxygen and roots that are stalled out/struggling with anaerobic conditions and poor nutrient uptake, creating the more yellow chlorotic symptoms. These same conditions are going to exaggerate the symptoms of IDC in your typical IDC areas as all nutrients are lacking, including soluble iron, so IDC symptomology will be prevalent in those typical IDC areas of a field.



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