August 4th, 2025

NW IA Dealer Agronomy Update

Reproductive Soybean Growth Stages

It is always said – soybean yield is made in August. We are now here with plenty of moisture – unfortunately too much in many areas causing yellowing and poor growth. Hopefully, mild temperatures and drier weather will be in store to finish strongly. Key reproductive stages of soybean growth are outlined below:

Beginning Pod (R3)

A pod on at least one of the upper-most four nodes is $^{3}/_{16}$-inch long or longer. Heat or moisture stress at this stage can reduce pod numbers, seed number per pod, or seed size, which may reduce yield potential. The ability for soybean plants to recover from temporary stress decreases from R1 to R5.5. Favorable growing conditions during this period may result in greater pod number and increased yield potential.

Full Pod (R4)

Pods are growing rapidly, and seeds are developing. At least one ¾-inch long pod has developed on at least one of the four upper-most nodes. Stress during this period (and through R6) can cause more reduction in yield potential than at any other growth stage. Timely rainfall or irrigation may help reduce the potential for yield loss.

Beginning Maturity (R7)

At least one normal pod on the main stem reaches its brown or tan mature color. Seed dry matter begins to peak. Seeds and pods begin to lose green color.

Plants are safe from a killing frost. Yield potential may be reduced if pods are knocked from plants or seeds are shattered from pods.

Full Maturity (R8)

When at least 95% of the pods on a plant have reached their mature color, the plant is fully mature. Typically, 5 to 10 days of good drying weather after the R8 stage has been reached are needed to obtain a harvest seed moisture content of less than 15%.

Beginning Seed (R5)

At least one $^{1}/_{8}$-inch long seed is present in a pod at one of the four upper-most nodes. About half of the nutrients required for seed filling come from the plant's vegetative parts and about half from N fixation and nutrient uptake by the roots. Nitrogen fixation peaks. Stress at this stage can reduce pod numbers, the number of seeds per pod, seed size, and yield potential. Plants attain maximum height, node number, and leaf area at this stage.

Full Seed (R6)

This "green bean" stage marks the beginning of the full seed stage. At least one of the four upper-most nodes should have a pod with a green seed filling the pod cavity. Total pod weight peaks and leaves begin to yellow.

The size of the developing pods and seeds at one of the four uppermost nodes on the main stem with a fully developed leaf determines the R stage from R3 thorough R6. When staging plants, ***it is important to examine only these nodes*** *as plants will simultaneously have a range of pods and seed sizes above and below these nodes.*

White Mold

Record rains in many areas in the month of July, high humidity and lodged soybeans from recent winds have all increased the risk of White Mold. There has been light White Mold seen in NW Iowa and the potential for the development of this devastating disease still exists and will for another 4-5 weeks. The potential infections have taken place as the first flowers started to senescence – which was over a month ago. We'll see how the rest of the year plays out, but we know White Mold can develop and spread throughout the canopy with very rapid speed, especially when plants are lodged. As far as fungicide applications, the best recommendation for White Mold is Delaro or Delaro Complete at R1 followed by Delaro Complete at R3. Even if the R1 application has not been made there has been benefit shown to an R3 application of fungicide to help suppress the spread of White Mold and to help the overall plant health of the soybeans.

Apothecia on the left and White Mold on soybean stems on the right.

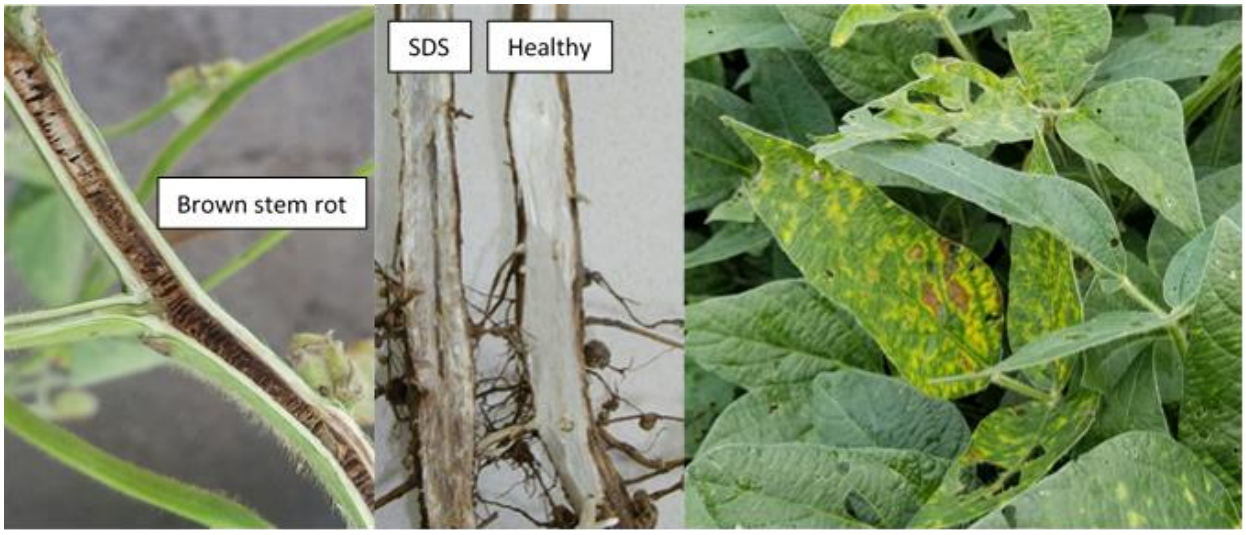
Sudden Death Syndrome

With soybeans planted early this year, many fields experienced conditions that were ideal for SDS infection—cool, wet soils at emergence followed by warmer temperatures that potentially allowed the disease to take hold. Sudden Death Syndrome is a soilborne disease caused by the fungus *Fusarium virguliforme*. It infects soybean roots early in the season, but foliar symptoms typically appear later—often from R1 (beginning bloom) through R6 (full seed). While above-ground symptoms grab attention, the real damage begins underground, where the fungus attacks root systems and produces toxins that travel up the plant and shut down its ability to function.

Key Factors That Influence SDS Development

Several environmental and management factors drive SDS infection and severity:

1. **Early Planting + Cool, Wet Soils**
   This season's early planting coincided with several cold, wet stretches—ideal conditions for SDS infection. Soybeans planted into cool soils are more vulnerable to root diseases, especially SDS and Pythium.
2. **Soil Compaction or Poor Drainage**
   Heavy soils and areas with poor internal drainage create environments where SDS thrives. Saturated conditions stress roots and allow pathogens to flourish.
3. **High Soybean Cyst Nematode (SCN) Pressure**
   Fields with high SCN populations are often hot spots for SDS. The two pests frequently work together, with SCN weakening root systems and creating entry points for the SDS pathogen.
4. **Susceptible Varieties**
   Variety selection plays a major role. Some genetics are much more tolerant than others. Unfortunately, SDS can still appear in moderately resistant varieties under high disease pressure.



Discoloration of pith by brown stem rot, discoloration of vascular tissue by sudden death syndrome (SDS) verses a healthy stem, and foliar symptoms of either SDS or brown stem rot.

Uploading Aerial Data into Climate FieldView

In the last few weeks, we have seen many aerial applications completed. This can be fungicide, insecticide, foliar nutrients or any combination. Uploading aerial data into Climate FieldView™ is crucial for ensuring accurate yield analysis from these applications . Ensure that your exported shapefile meets the required formats: .**shp, .shx, .dbf, and optionally .prj**. It's best practice to request a digital copy of the data from your aerial applicator beforehand, as *contract planes often delete as-applied data after leaving the area.*

For successful ingestion of aerial application data, the exported application data must be SHP files with GPS information INCLDUING SWATH WITDH.
Additionally, the SHP files must contain the following required data:

- **PROD_MIX**: This means the application files must include an actual product name (e.g., "Delaro 325 SC Fungicide")
- **APP_RATE**: This means there must be a physical application rate per acre assigned in the file. It must be populated and cannot be zero.
- **APP_RATE_U**: This means there must be a unit of the application rate (oz/ac or gal/ac). It must be populated and cannot be zero

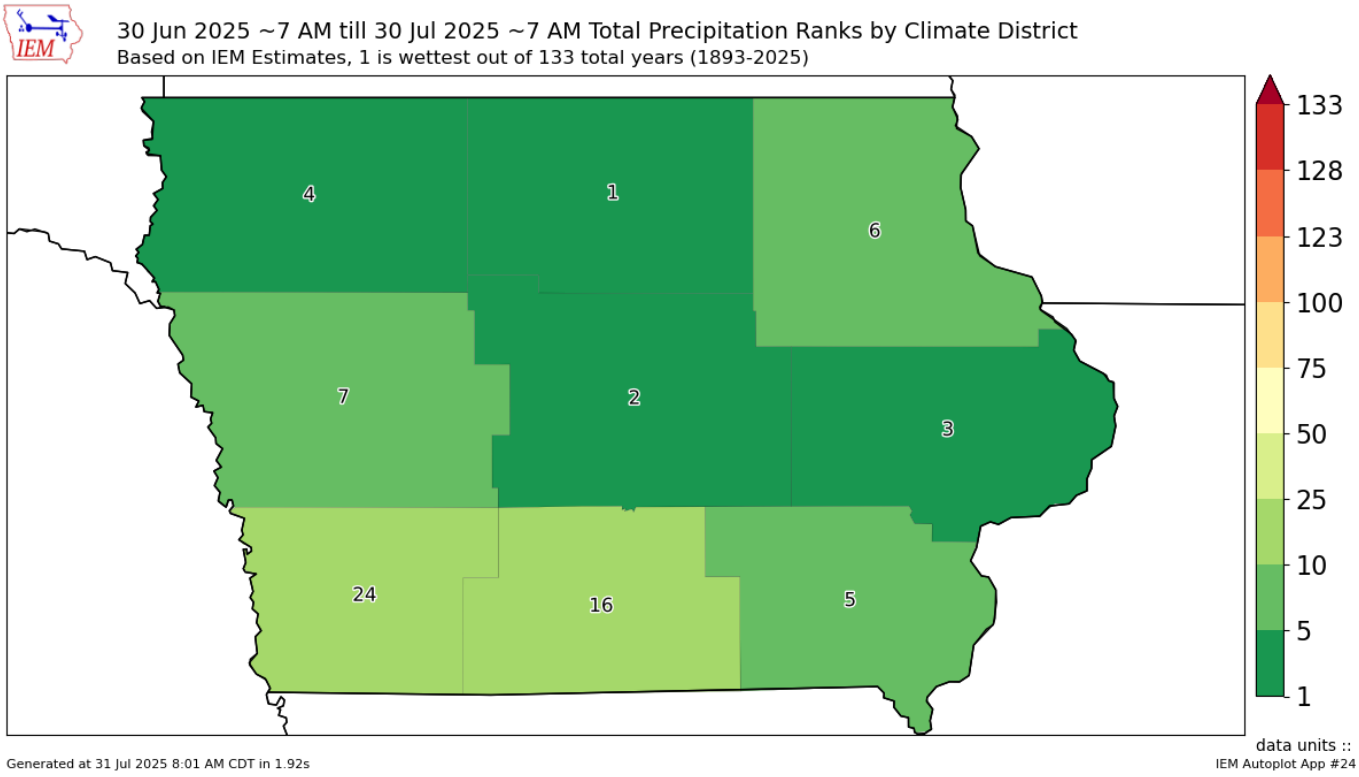
Supported formats include AgSync and Flight Plan exported aerial data files. Many times, drone files are missing one or more of these layers and currently are not supported by Climate FieldView.

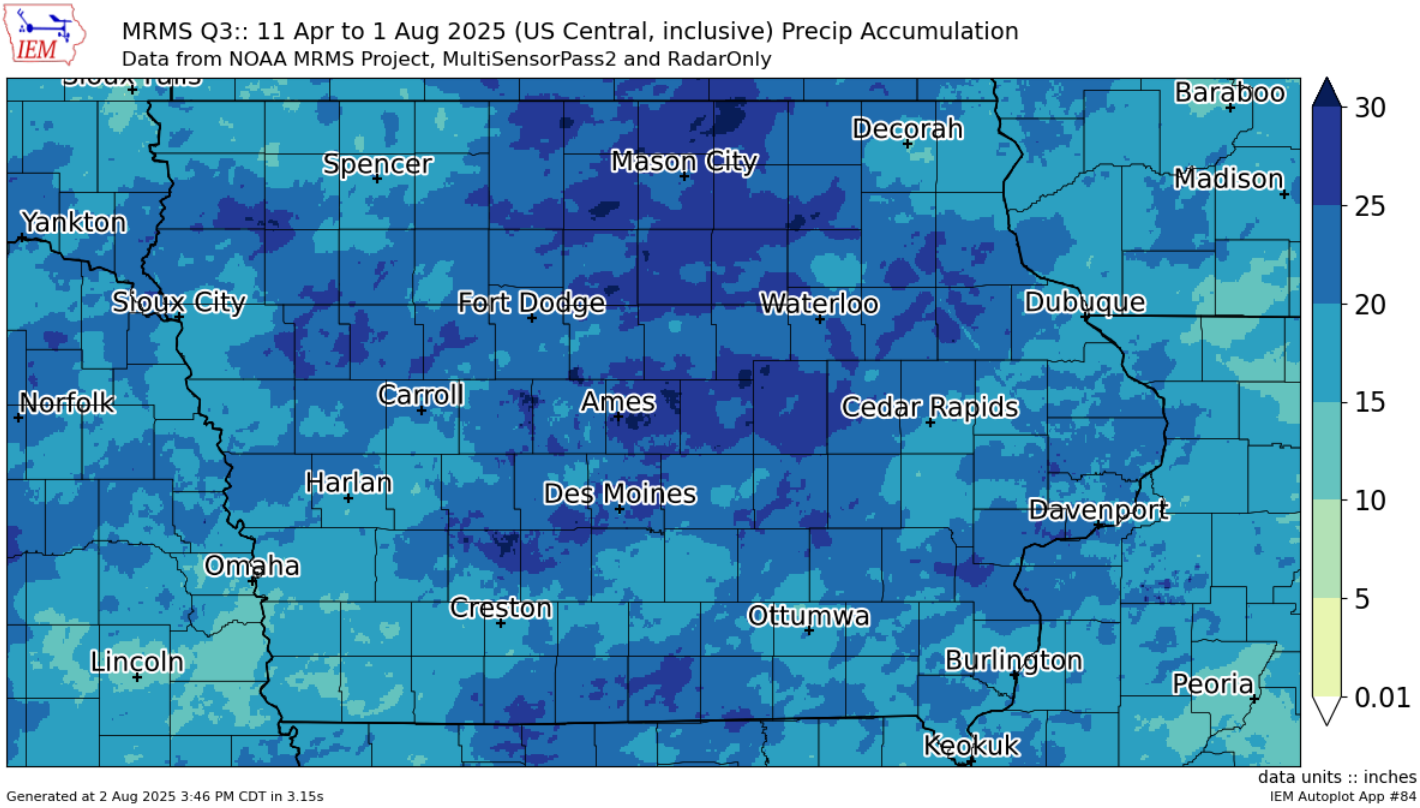
Once your file has been imported, you can find it under the In Season tab on Climate.com, the FieldView™ app, and the FieldView Cab app. If your file appears under Imported Shapefiles instead of Applications, it may indicate that a required field is missing. For any issues, contact the Climate Support Team at 1.888.924.7475 or support@climate.com. For step by step instructions and images, please CLICK HERE.

By using aerial data effectively, growers can benefit from improved application tracking, utilize Climate FieldView analysis features, and create comprehensive application reports, ultimately leading to better-informed decisions for optimizing crop yields and ROI. Information on Field Region Report (FRR) by Application

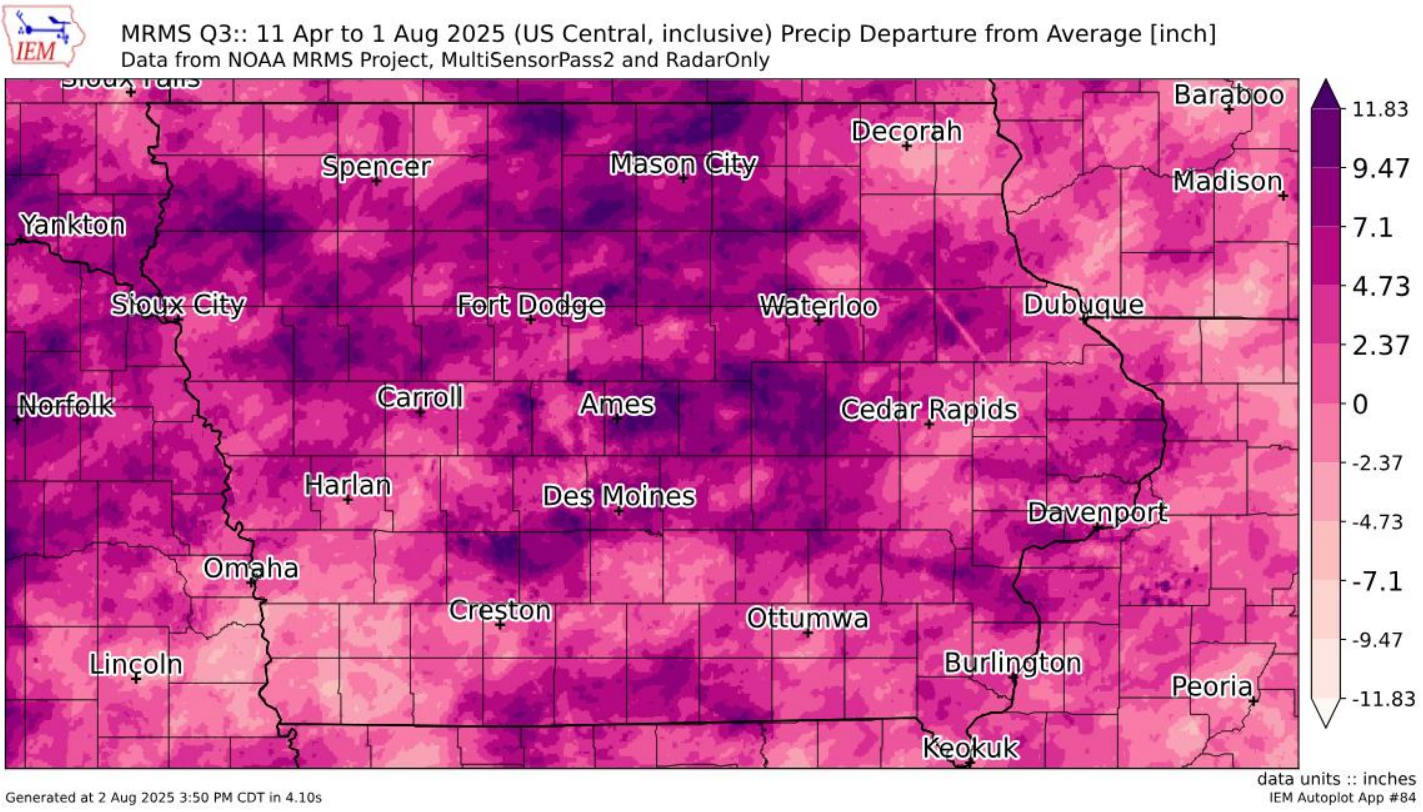
Wettest July on Record?

It has been an extremely active season for weather, especially in the month of July. Many towns and some Climate districts are experiencing the wettest July on record and some are experiencing the wettest growing season on record as well. Here are some of the interesting data views of this wild weather. These are all sourced from the Automated Data Plotter on the ISU Mesonet site. Moisture will continue to fuel pathogen development in both corn and soybeans but is setting us up for a long grain fill period.





For reference, please note that the Ames weather station is reporting 28.58 inches of rain since 4/11/25



For example, Carroll is reporting 3.05" above average

New Product Spotlight Alloy A28E36

New Enlist variety available in very limited quantities in 2026.

- Solid yielding Enlist soybean with a 4 Bu/A advantage over A28E34
- RPS1K Phytophthora gene with a good Field Tolerance rating (4)
- White Mold is good at a (4)
- IDC and SDS are average at a (5)
- Standability is average (4)

Growing Degree Units

GDU accumulation continues to be running ahead for all the planting dates listed below. The table below shows the GDU accumulation from **April 11th – August 2nd, April 23rd – August 2nd and May 5th – August 2nd** at different locations in Northwest and Central Iowa. These GDUs can be found on the following website – plug in your location and planting dates for GDUs specific to you. MRCC.

Location	4/11/25 to 8/2/25	30 Year Average
Rock Rapids	1858	1753
Bancroft	1812	1703
Le Mars	1938	1839
Fort Dodge	1875	1794
Denison	1964	1831
Ames	2013	1806

Location	4/23/25 to 8/2/25	30 Year Average
Rock Rapids	1763	1687
Bancroft	1728	1642
Le Mars	1828	1765
Fort Dodge	1787	1724
Denison	1866	1758
Ames	1928	1735

Location	5/5/25 to 8/2/25	30 Year Average
Rock Rapids	1622	1596
Bancroft	1639	1557
Le Mars	1727	1665
Fort Dodge	1690	1629
Denison	1762	1662
Ames	1817	1641

Additional Resources:

Track + submit progression of key diseases like Tar Spot and Southern Rust https://corn.ipmpipe.org/

Get alerts for insect migration and emergence with https://www.insectforecast.com/

Track GDUs https://mrcc.purdue.edu/tools/corngdd

Sign up to receive Bayer Crop Science Agronomic Updates

/// FieldView Support:
/// 888-924-7475 /// Knowledge Center /// YouTube /// Twitter

See the disease risk maps that are provided by a 3rd party exclusively for Bayer Crop Science.

Corn Disease Risk Maps
Soybean Disease Risk Maps

Picture of the Week

Last week marked 30 years working for the DEKALB brand that is consistent, strong and proven! I'm very proud to have represented the best corn brand around over that many years!