



July 28th, 2025

NW IA Dealer Agronomy Update

Reproductive Corn Growth Stages

We are moving into several critical reproductive stages for corn – early ear fill. Expectations are high as moisture and nutrient availability heading into this period have been very good in most locations. We know there are still stresses that can take away kernel fill and bushels, but the potential is as high as many can remember.

R2 Blister	About 12 days after silking, silks darken and dry out. Kernels are white and form a small blister containing clear fluid. Each kernel develops an embryo. Kernels contain 85% moisture. Stress (especially drought) at this stage can reduce yield potential by causing kernel abortion.
R3 Milk	About 20 days after silking, kernels are yellow and clear fluid turns milky white as starch accumulates. Kernels contain 80% moisture. The effects of stress are not as severe after this stage, but can still result in shallow kernels, stalk cannibalization, or lodging.
R4 Dough	About 26 days after silking, the starchy liquid inside the kernels has a dough-like consistency. Kernels contain about 70% moisture, begin to dent at the top, and have accumulated close to 50% of their maximum dry weight. Stress can produce unfilled or shallow kernels and “chaffy” ears.
R5 Dent	About 38 days after silking, nearly all kernels are dented and contain about 55% moisture. Cob has distinct color: white, pink or red. Silage harvest begins sometime during this stage, depending on desired whole plant moisture.
R6 Black Layer	About 60 days after silking, physiological maturity is reached, and kernels have attained maximum dry weight at 30 to 35% moisture. Total yield is determined, and frost has no impact on yield.

Kernel fill during reproductive stages



Source: University of Illinois, 1999



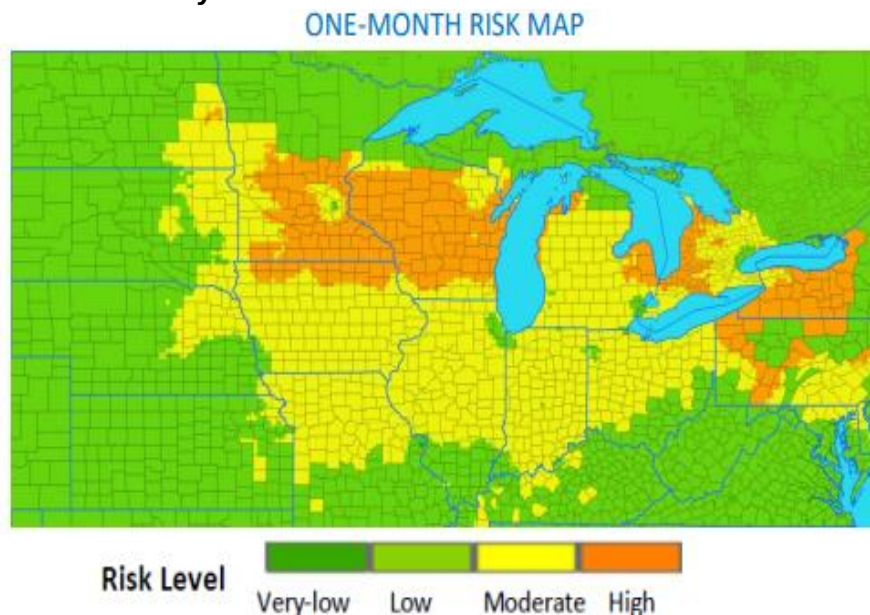
Disease Risk Update: Tar Spot & Southern Rust

Weather patterns across Northwest Iowa are creating moderate to highly favorable conditions for both Tar Spot and Southern Rust. With continued moisture, humidity, and warm nights, the risk of rapid disease development is increasing as we move into the heart of reproductive growth stages.

Tar Spot Outlook

- Begin scouting susceptible hybrids, particularly on the middle and lower canopy
- Favorable conditions to disease development
 - Cooler temperatures
 - High Humidity
 - 7 hours of leaf wetness

Corn Tar Spot Risk Forecast – July 20th

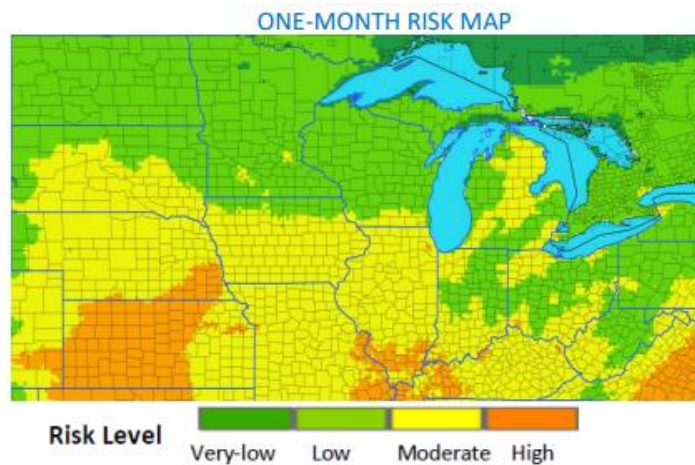




Southern Rust Outlook

- Southern rust has been confirmed in the southern corn belt and continues to move northward as conditions in NW Iowa remain favorable for the spread of this disease
- Be alert for reddish-orange pustules primarily on the upper canopy
- Infected plants can produce additional pustules in as few as seven days
- Favorable conditions for disease development
 - 80-90 degrees
 - High humidity
 - 6 hours of leaf wetness

Corn Southern Rust Risk Forecast – July 20th



Protecting Late-Season Corn Yield Potential

We are seeing tremendous yield potential across much of our trade territory this year. As we move past pollination and into grain fill, it is critical to remember that the period from silking to black layer typically spans about 55 days. This is a crucial time where stress from disease can significantly reduce final yields.

With the advancement of fungicide technology—such as **Delaro® Complete**, which contains an SDHI active ingredient, we now have tools that offer up to 21 days of residual protection. However, even with this protection, it is essential to continue monitoring fields for late-season infections like Tar Spot and Southern Rust. These diseases can move in fast and rob significant yield if left unchecked.

Some fields have already received a fungicide application, but we must stay diligent. Scout through dent stage, especially in fields with a history of disease pressure or where conditions are favorable for disease development. Consider a second fungicide application in high yield environments or high-risk situations where the first spray may be wearing off before black layer.

Let's protect the investment we've made so far - timely management decisions in the second half of the season could be the difference between a good crop and a great one.



Now is the Time: Get Out and Evaluate Corn Pollination

As we move past the peak of pollination, now is the time to walk your corn fields and evaluate how this critical stage went. The success or failure of pollination has a huge influence on yield potential.

What to Look For

Start by selecting ears from different parts of the field and gently pulling back the husk. You want to see full kernel set from the butt all the way to the tip. Keep in mind that the ear pollinates in a sequence—from the base (butt) to the tip—so incomplete kernel set at the tip can be a normal sign of stress or simply the plant running out of resources as you evaluate ears, pay close attention to silks. **Any silks still visibly attached to the ear are a sign of unpollinated kernels.** Once a pollen grain lands on a silk and fertilization occurs, that silk will detach and dry up.

Reasons Pollination Fails

There are several agronomic and environmental reasons why pollination may not be complete:

- **Drought stress** during silking causes silk desiccation or delays emergence, which can lead to poor timing between pollen shed and silk receptivity.
- **Extreme heat** during tasseling and silking (temps above 95°F) can reduce pollen viability and silk growth.
- **Insect feeding** on silks (like corn rootworm beetles or Japanese beetles) can clip silks before they're pollinated.
- **Hybrid Differences** particularly in relation to silk emergence and pollen shed synchronization.

What We're Hearing in the Field

We've heard increasing reports from growers and agronomists that several competitor hybrids are experiencing **wrapped tassels**. This abnormality, where the flag leaf or upper leaves don't unroll properly, **delays pollen shed**—which is a major issue when silks are already out and ready. This delay may lead to **incomplete pollination** and poor kernel set. Here is a link to an article for more information on this topic from Purdue University: <https://extension.entm.purdue.edu/newsletters/pestandcrop/article/wrapped-tassels-in-corn-now-what/>

Pollination is one of the most important and vulnerable stages in corn development. Evaluating how well it went gives us early insight into yield potential, but just as importantly, it helps us diagnose hybrid performance, identify environmental stress impacts, and guide next year's management decisions. **Don't wait till the combine rolls this fall to find surprises.**



Soybean Aphid Management Decisions

Soybean aphids have been present with some areas seeing populations ramp up. The weather has been hotter, which may slow reproduction. Remember that 72-77° with relative humidity < 78% is ideal for their development and reproduction. We do need to be diligent in scouting and treat, if necessary, until stage R5.5 - R6. Iowa State University uses the threshold of **250/plant on at least 80% of plants and increasing**. All fields still have a long way to go to be safe from soybean aphids and especially the late planted/replanted fields as those fields are very attractive to soybean aphids as we get into late August and even early September. Keep in mind that pyrethroid resistance among soybean aphids is not widespread. Products with two modes of action, like Leverage 360, has shown to provide good control and residual even with pyrethroid resistant soybean aphids.

Keep the following timelines in mind for helping to make the soybean aphid treatment decision:

<u>Stage</u>	<u>Days Susceptible to Aphids</u>
R3 Pod is 3/16" at top 4 nodes	33
R4 3/4" pod at top 4 nodes	24
R5 1/8" seed in pod at top 4 nodes	15
R6 Full size seed in pod at top 4 nodes	0

New Product Spotlight Alloy A25E36



New Enlist variety available in very limited quantities in 2026.

- Excellent Performance across years and regions (E-C-W) and varying yield levels
- Exclusive variety to Bayer Crop Science
- Peking variety for excellent SCN protection with BSR tolerance
- White Mold is a (5)
- IDC and SDS are average at a (5)
- Standability is below average (5)



Growing Degree Units

GDU accumulation continues to be running ahead for all the planting dates listed below. **Above normal nighttime temperatures are not ideal for kernel fill so hopefully temps moderate.** The table below shows the GDU accumulation from **April 11th – July 27th**, **April 23rd – July 27th** and **May 5th – July 27th** 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](https://mrcc.purdue.edu/tools/cornngdd).

Location	4/11/25 to 7/27/25	30 Year Average
Rock Rapids	1732	1620
Bancroft	1692	1561
Le Mars	1803	1689
Fort Dodge	1737	1645
Denison	1830	1679
Ames	1899	1677

Location	4/23/25 to 7/27/25	30 Year Average
Rock Rapids	1634	1556
Bancroft	1607	1500
Le Mars	1699	1616
Fort Dodge	1648	1575
Denison	1732	1607
Ames	1810	1603

Location	5/5/25 to 7/27/25	30 Year Average
Rock Rapids	1533	1472
Bancroft	1517	1422
Le Mars	1600	1525
Fort Dodge	1552	1491
Denison	1626	1522
Ames	1696	1515

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/cornngdd>



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/// FieldView Support:

/// [888-924-7475](tel: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



The topic of discussion lately has been wrapped tassels - picture above comes from one of these fields. It does seem that certain hybrids and genetic families are exhibiting this more than others.