Agronomy Profile



Understanding hybrid maturity ratings

Overview

Several methods provide growers with a reasonable estimate of corn hybrids' relative maturity, but the different terms can be confusing. Understanding maturity rating systems can help you choose the best hybrids for your geography.

What you should know

- Relative maturity (RM) compares hybrids near the time of harvest maturity, assuming that a hybrid will lose about one-half of a percentage point of moisture per day. RM ratings usually range from about 79 to 120. RM does not reflect calendar time.
- Minnesota relative maturity (MRM) ensures that corn will likely reach its maturity within three days of the labeled RM classification. This is often more useful for northern growers at risk of fall frost. MRM ratings categorize hybrids into three relative maturity groups: full-season, mid-season and short-season. Ratings typically fall between 85 and 115.
- Growing degree days (GDD) accumulate thermal values daily up to the formation of the kernel blacklayer. GDD is calculated by adding the day's low and high temperature (50 and 86 are the default minimum and maximum values), dividing by two and then subtracting 50.
- Example: Low temp: 50° F, High temp: 73° F = 11.5 GDD units
- Short-season hybrids are usually grown to around 2,500 GDD units (this corresponds roughly to a 105 RM rating) whereas long-season hybrids require a little more than 2,800 GDD units (about 115 RM rating). Note that some companies calculate the requisite GDD units only after emergence-instead of after planting-which creates a significant difference.



Understanding different maturity rating scales can help you choose the optimal hybrids for your operation.



- The various corn maturity ratings provide different information about hybrids.
- Depending on your operations, different types of ratings may be more useful.
- Understanding the different rating systems can help you select the right hybrids for your geography and operation.

NOTES:

For more information, contact:



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