



# Agronomic Spotlight

## Interpreting Corn Product Ratings

- Product ratings help seed companies position their products under the right conditions to meet the farmer's needs, field conditions, and management practices to promote the most successful outcome.
- Product rating categories include agronomic and seed characteristics, maturity, placement recommendations, growing degree unit (GDU) requirements, planting rate recommendations, and stress tolerance.

### OVERVIEW OF PRODUCT RATINGS

The general product characteristic rating scale runs from 1-9; 1 is excellent and 9 is poor (Table 1). Other characteristics have individualized ratings. Product ratings are relevant within comparisons of other Monsanto branded products only; comparisons to ratings for competitors' products could be inaccurate since the rating scale between companies is not calibrated.

| Table 1. Rating scale for agronomic and seed characteristics |             |
|--------------------------------------------------------------|-------------|
| Rating                                                       | Description |
| 1-2                                                          | Excellent   |
| 3-4                                                          | Very good   |
| 5-6                                                          | Good        |
| 7-8                                                          | Fair        |
| 9                                                            | Poor        |

- Agronomic characteristics, adaptation ratings, and planting rate recommendations provide essential information to farmers for on-farm positioning.
- Herbicide sensitivity ratings provide the anticipated product response to the respective herbicide family. Under labeled herbicide use rates and normal environmental conditions, most products do not have sensitivity issues with most herbicide families.
- Ratings for specific diseases are not always available for all products. If environmental conditions are not favorable for disease development during testing, the incidence of disease may not be adequate for evaluation.

It is not common for a product to be rated excellent or very good for every agronomic factor and disease tolerance rating. Farmers should evaluate what diseases or agronomic risk factors are important in their fields and select products that tend to have stronger ratings for those factors.

### CORN PRODUCT RATINGS

**Relative maturity.** A relative measure of the time it takes from planting for the corn product to reach maturity. This is an estimate and actual maturity can vary based on environmental conditions and geographic location.

**Placement recommendation.** A recommendation of where the product will perform best and/or regions that should be avoided. This may be in reference to soil type, productivity level, or management practices common to a region. Placement recommendations are typically developed locally based on local testing.

**GDUs.** The estimated number of GDUs needed to reach mid-pollination (flowering) and black layer (maturity). This

rating can vary based on environmental conditions. This rating is especially useful when selecting a product for late planting.

**Recommended planting rates.** Rated as high (H), medium high (MH), medium (M), medium low (ML), or low (L). This rating is based on planting rate trials conducted over a wide range of environments.

**Emergence.** Rated on a scale of 1-9, with 1 being the best. This is a measure of the ability of the crop to emerge quickly and uniformly under stressful conditions.

**Plant height.** Rated as short (S), medium short (MS), medium (M), medium tall (MT), and tall (T). This can vary



with environmental conditions.

**Ear height.** Rated as low (L), medium low (ML), medium (M), medium high (MH), and high (H). The optimum ear height depends on preferences and management practices.

**Stalk strength and root strength.** Rated on a scale of 1-9, with 1 being the highest standability.

**Staygreen.** Rated on a scale of 1-9, with 1 being the best. Products with a lower staygreen rating will remain greener for a longer period of time, potentially lengthening the grain-fill period which can improve kernel set and test weight.

**Greensnap tolerance.** Rated on a scale of 1-9, with 1-3 being the best choices for managing greensnap issues.

**Drought tolerance.** Rated on a scale of 1-9, with 1 being the highest level of drought tolerance.

**Harvest appearance.** Rated on a scale of 1-9. Harvest appearance is calculated based on the plant's ability to maintain leaves and tassel intact as the plant matures, as well as the overall general appearance of the plant at maturity.

**Drydown.** Rated on a scale of 1-9; products with a rating of 1 have the fastest drydown. This is based on the number, thickness, coverage, and tightness of the husk leaves.

**Ear rot.** Rated as above average tolerance (AA), average

(A), or below average tolerance (BA). Husk characteristics and genetic resistance influence tolerance to ear rots.

**Test weight.** Rated on a scale of 1-9; products with a rating of 1 have the highest average test weight. The type of endosperm (vitreous vs. floury) affects the test weight of a product.

**Herbicide tolerances.** The product's response to different herbicide families is rated as acceptable (A): crop injury from a labeled application is unlikely, caution (C): crop injury is possible from a labeled application if the application occurs with adverse environmental conditions, and warning (W): crop injury is likely from a labeled application even with good environmental conditions.

**Disease tolerances.** Rated, where possible, on a scale of 1-9, with 1-2 = excellent tolerance and 9 = poor or very susceptible.

Corn products may also have a rating of **tough**: shows consistent performance in tough conditions, **versatile**: is adapted to a wide range of environments, or **optimum**: has outstanding yield potential in highly productive environments. Some products are considered **drought-adapted**, which means they have proven to be reliable in water-limited conditions, demonstrating consistent performance across drought and dryland acres.

## FOR MORE INFORMATION

Contact your local agronomist to obtain a complete listing

of ratings.