

Understanding Corn Seed Sizing

Corn Seed Sizing

- When corn seed goes through the conditioning process, it is separated into fractions based on kernel size and shape creating uniformity.
- Kernel size (small medium or large) and shape (round or flat) is determined primarily by the position of the kernels on the ear.
- Seed size and shape can also vary by hybrid and weather conditions during seed production, including temperature and rainfall.
- Small round kernels originate from the ear tip, flats from the middle and large round kernels from the butt end of the ear.
- All kernel sizes from the same hybrid have the same yield potential.

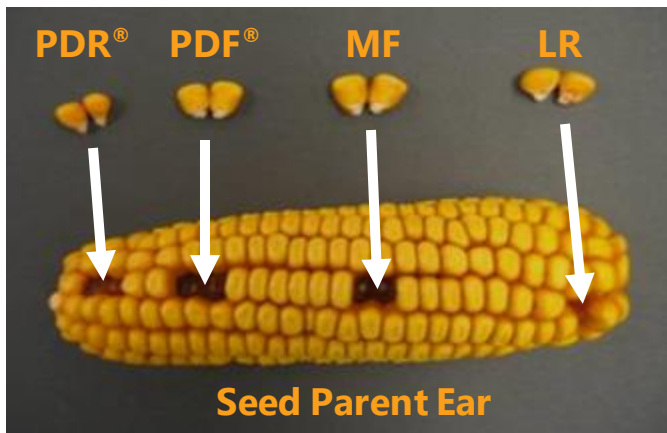


Figure 1. Seed parent showing where different seed types originate on the ear.

- F denotes flat seed and R denotes round seed.
- L denotes large seed and M denotes medium seed.
- Precision design rounds and flats (PDR® seed and PDF® seed) reference specific sizes that are suitable to specific planter plates. The majority of the seed from an ear segregate into PDR seed and PDF seed fractions.

Table 1. Fractions of seed corn in different kernel sizes averaged across leading Pioneer® brand hybrid families in the northern U.S.

Kernel Size	% in Kernel Size
PDR	30
PDF	24
LR	2
MR	25
LF	1
MF	18

Impact of Seed Size

- Kernel size has minimal effect on seed vigor, field emergence or final yield.
- Seed is sized to maintain uniformity based on planter requirements.
- The most important factor in corn yield is the choice of hybrid (genetics). Planting the right hybrid with the desired agronomic traits will provide the best overall yield results.

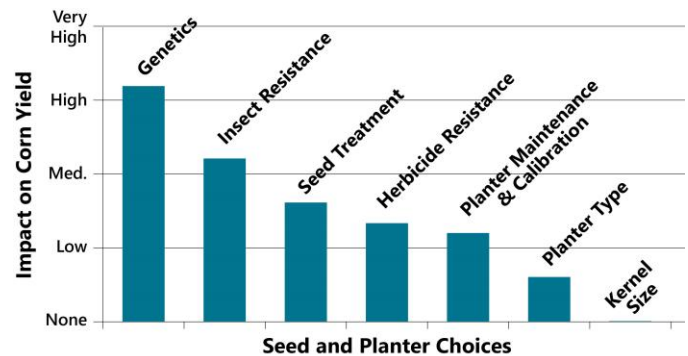


Figure 2. Seed-related choices and their relative impact on corn grain yield.

- Nearly all kernel sizes can be successfully planted with all planter types. Additional adjustment may be required in some cases.

Table 2. Kernel size-plantability guidelines for air, vacuum, finger pickup and plate-type planters.

Kernel Sizes		Planter Type			
		Air	Vacuum	Finger Pickup	Plate
-	PDR	●	●	●	●
-	PDF	●	●	●	●
Large round	R22	●	◆	◆	●
Medium round	R23	●	●	●	●
Large flat	F12	●	●	●	●
Medium flat	F14	●	●	◆	●

● Acceptable Plantability ◆ Requires Additional Adjustment

- For the most precise recommendations, you can directly access information for individual seed batch numbers and your specific planter type at www.pioneer.com/plantability.



The Digital Bag Tag feature in the Granular Insights app easily scans a seed tag to provide planter setting recommendations, maximizing planter performance and seed-drop accuracy.

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