Agronomy Profile

Twin-row corn

Overview

Extensive research illustrates that corn planted in a twin-row configuration can have a significant yield advantage versus a single-row crop. Twin rows increase the uniformity of a corn crop and more efficiently absorb nutrients, maximizing genetic yield potential.

What you should know

- Corn roots grow in a circle, and in a twin-row configuration, roots have more space for growth. Consider that in a 38,000-population field planted in single 30-inch rows, roots use 14.4% of acreage for growth and moisture gathering. Compare that with 44.5% in a twin-row configuration. Large roots maximize nutrient retrieval and moisture absorption.
- Twin rows tend to result in larger stalks, which can increase tonnage and relative feed value. In one university study, this translated to a 29% increase in milk production.[1]
- Twin-row corn provides increased shading that creates more competition for developing weed seedlings.
- Twin-row corn is more susceptible to insect threats, particularly rootworms. Growers in high-risk areas should consider the potential for increased insecticide costs before planting.

Action steps

1. **Plant consistently for uniformity:** Twin-row plants are seeded in paired rows, usually 7 - 8 inches wide. Each row center is spaced at 30 inches. Within the twin rows, plants are staggered diagonally at about 10 inches.
2. **Support with more nutrients:** Twin-row leaves are more efficient at capturing sunlight. This fosters taller plants, bigger ears and larger stalks that create a canopy to shade the ground and conserve water.
3. **Combine as usual:** A standard 30-inch corn head harvests twin-row stalks as easily as a single 30-inch row.

[1] Jarek, K. and Lauer, J. "Evaluating Twin–Row Corn Silage Production." University of Wisconsin Extension. https://outagamie.extension.wisc.edu/files/2011/09/MFA-MFRP-White-Paper-Evaluating-Twin-Row-Corn-Silage-Production-1-12-12.pdf.

Combine heads traditionally used in single-row fields also can harvest twin-row corn.

30-Second Summary

- Twin-row planting can provide a significant yield bump.
- Twin-row corn captures more nutrients, which can lead to better tonnage and relative feed value.
- Twin-row corn can be harvested with the same combine head as single-row corn.

NOTES:

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