

Still Important: Starters On High P Soils

Continuing studies on corn response to starters on high P soils on the Delmarva Peninsula indicate that some starter P is important for highest yields even when soil test P levels are high. Eliminating P in starters because of high P index values puts growers at a disadvantage through lower yields, particularly in high residue systems, and likely has negative implications for N use efficiency.

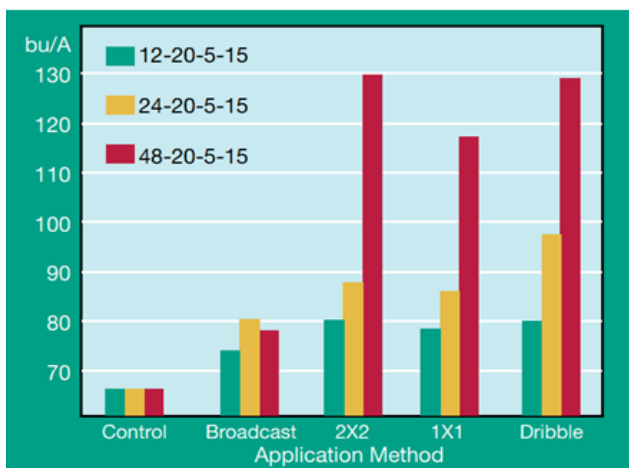
Summary Points

- Some starter P is important for highest yields even when soil test P levels are high.
- Studies have consistently shown that broadcast starter have been inferior to 2 x 2 bands or surface bands beside the row.
- Complete high N starters that also include K, S, and Zn have proven to be better than N-alone starters.

Conclusions

Our starter N rate comparisons support the importance of adequate N close to the emerging plant in the first crucial days after planting. Broadcast N is not the same and, like high P soil tests under high residue, cold soil conditions do not provide high enough N (or P) concentrations in the young plants' root zone to overcome soil environmental restrictions to nutrient uptake. Numerous studies have also emphasized the importance of readily available NPKS and Zn close to the developing root system to meet the demands of young plant roots. Nutrient adsorption per unit of root length is extremely high in early growth stages.

Effects of starter formulation on corn yields



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Full paper is available from the Fluid Journal archives:

<http://www.fluidfertilizer.com/PastArt/pdf/59P12-13.pdf>

