RESEARCH UPDATE

Demonstration of Supplemental Nitrogen on Furrow Irrigated Soybeans in MS 2013

Objective

- Evaluate the effect of supplemental nitrogen (N) applied at the R3 growth stage on yield of highly managed furrow irrigated Pioneer® brand soybeans grown on light and heavy textured soils in the MS delta.

Study Description

Plot Layout: Field-length blocks

Experimental Design: Non-replicated strip trial

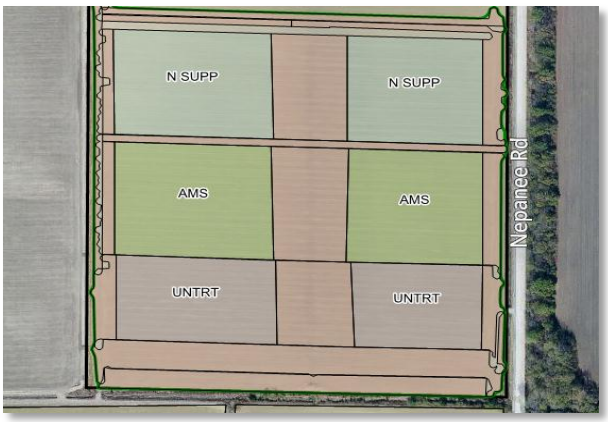
Number of Locations: 2

Soil Type: 1 sandy loam location
1 heavy clay location

Nitrogen Treatments Applied at R3 Growth Stage:
Non-treated
75 lbs/acre ammonium sulfate (AMS)
2 gal/acre 25-0-0 foliar N fertilizer

Pioneer® Variety: 93Y92 (RR)

Cooperator: Livingston Farms, Leland, MS



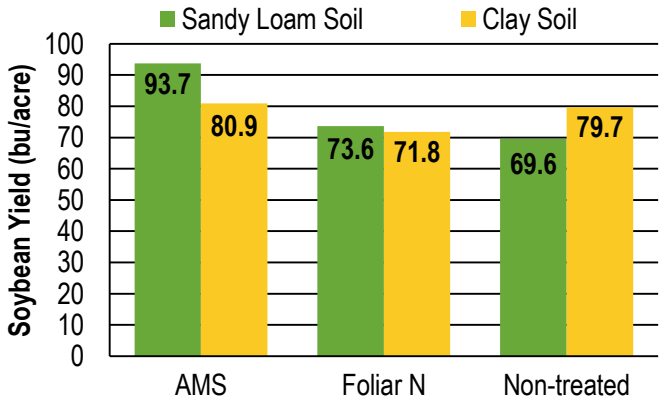
Supplemental N trial at clay location.

Supplemental N trial at sandy loam location.

Results

- Supplemental N appeared to be more beneficial at the sandy loam site and of little benefit at the heavy clay location.
- Soybeans were most responsive to 75 lbs/acre AMS at the sandy loam site where yield with the AMS treatment was 20+ bu/acre higher than the non-treated control.
- Foliar N supplement at the sandy loam site resulted in a 4 bu/acre yield increase compared to the non-treated control.
- This study was a non-replicated trial conducted for demonstrational and educational purposes. Further investigations are warranted to validate these findings.
- Future replicated studies will focus on the potential benefit of supplemental N and sulfur on light-textured, low organic matter soils of the MS alluvial flood plain.

Effect of Supplemental N Applied at the R3 Growth Stage on Soybean Yield



RR - Contains the Roundup Ready® gene. Roundup Ready® is a registered trademark used under license from Monsanto Company.

PIONEER® brand products are sold subject to the terms and conditions of sale which are part of the labeling and purchase documents. 2013 data are based on average of all comparisons made in two locations through November 20, 2013. Multi-year and multi-location is a better predictor of future performance. Do not use these or any other data from a limited number of trials as a significant factor in product selection. Product responses are variable and subject to a variety of environmental, disease, and pest pressures. Individual results may vary.

