Aspire® Cotton Boron Study

Objectives
- Evaluate the yield response of cotton to preplant applications of different potassium (K) and boron (B) sources. [1] MOP (0-0-60), [2] MOP + B blend, [3] Aspire® (0-0-58-0.5B).
- Compare the yield response of cotton with different preplant K and B sources plus an additional foliar B application at early bloom. [1] MOP + B blend with foliar compared to [2] Aspire with foliar B.

Introduction
- Boron is the micronutrient whose deficiency is most likely to limit cotton production. Cotton requires B in relatively large amounts compared to other crops.
- Boron deficiency in cotton may cause a distorted, stunted terminal, abnormal uppermost leaves and aborted flowers (Figure A).
- Soil applications of B are traditionally made with potassium prior to planting and/or as a foliar application at early bloom.
- Aspire with Boron nourishes plants at the root level so nutrients are available when and where plants need them.

Trial Details
Locations and Crop Management:
CROP: Cotton (Gossypium hirsutum L.)
YEAR: 2013
DATA SOURCE: Field studies conducted by independent third-party researchers.
EXPERIMENTAL DESIGN: Small-plot RCBD with 4 replications.
CROPPING CONDITIONS: All trials conformed to local cropping practices.
- K Rate: 120 lbs K₂O/ac
- B Rate:
  - Preplant: MOP + B blend (1 lb B/ac)
  - Preplant: Aspire (1 lb B/ac)
  - Preplant + Foliar: MOP + B blend (1 lb B/ac) + early bloom: (0.5 lb B/ac)
  - Preplant + Foliar: Aspire (1 lb B/ac) + early bloom: (0.5 lb B/ac)

Summary
- Aspire yielded higher in both preplant and preplant + foliar applications. Yields were higher with 1.5 lbs B/ac compared to 1 lb B/ac.
- A preplant application of Aspire (1 lb B/ac) outyielded an MOP + B blend (1 lb B/ac) by 22 lbs lint/ac and MOP by 64 lbs lint/ac.
- The preplant Aspire application (1 lb B/ac) with foliar application (0.5 lb B/ac) provided an additional 26 lbs lint/ac over the comparable MOP + B blend (1 lb B/ac) with foliar application (0.5 lb B/ac).
- The higher yields with Aspire compared to other treatments demonstrate the advantages of uniform nutrient distribution from Nutriform® technology.

FIGURE A: Boron deficiency in cotton

LOCATIONS: 6 trials across cotton growing regions of the U.S. (AL, GA, LA, MS, SC, TX)

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WARNING: Contains boron. Use of boron may result in crop injury. DO NOT place this product in direct contact with the seed. For more information, go to AspirePotash.com.