

Field Trial Report

2010 Molybdenum Seed Treatment Evaluation: Combined Results



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County Locations: Lancaster, Lebanon

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Research Objective: Conduct a pilot study to evaluate the impact of molybdenum on soybean yield.

Background: Research data from the southern US has shown a yield advantage from the use of molybdenum as a seed treatment in low pH soils. Little information exists on the response to molybdenum on Pennsylvania soils. This field trial was designed to assess the need for further study on the impact of molybdenum in Pennsylvania soils.

Study Description: A replicated strip test comparison with three replications at each site was utilized. Fields were planted by the cooperators. Two treatments were used in this study: Apron Max RTA and Apron Max RTA plus Moly. For each treatment, 5 oz/100lb of seed were applied directly to the seed prior to planting. Yield was collected by the use of a calibrated yield monitor. Soil pH levels were 6.2 in Lancaster and 6.4 in Lebanon.

RESULTS

The yield response to the addition of molybdenum as a seed treatment is shown in Figure 1. We found a 2.4 bu/acre advantage of using the molybdenum treated seed. This response was statistically significant and occurred in each of the 6 replications of the study. Further studies should be conducted to assess the factors that allow for this improvement in yield.

Figure 1

