

Figure 1. Soybean yield response to applied Mn, 2005-2006.

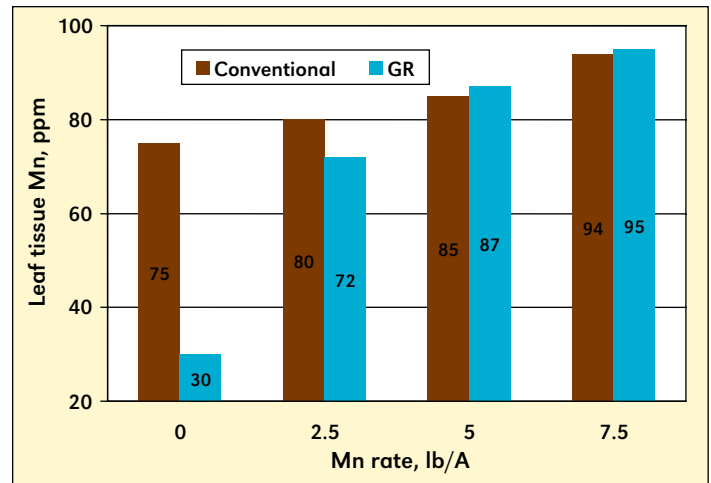


Figure 2. Soybean leaf tissue Mn concentration (uppermost expanded trifoliolate at full bloom) 2005-2006.

Stage of growth	Yield, bu/A
Starter (0.33 lb)	66
Starter (0.66 lb)	70
Starter (0.33 lb) + V4 (0.33 lb)	74
V4 (0.33 lb)	66
V4 + V8 (0.33 +0.33 lb)	72
V4+V8 +R2 (0.33+0.33+0.33 lb)	74
Untreated check	66
LSD (0.05)	3

lb/A Mn at each application.

### Results

In Experiment I, yield of the GR variety (KS 4202 RR) was 7 bu/A lower than its conventional near-isoline when no Mn was applied (Figure 1). The application of 2.5 lb Mn/A improved

yield of the GR variety equal to that of the conventional near-isoline. Yield of the conventional near-isoline was depressed at the high rate of Mn. Tissue Mn concentration (upper most expanded trifoliolate at full bloom) in the herbicide resistant near-isoline was less than half of the conventional variety when no Mn was applied (Figure 2). However, Mn fertilizer application closed the gap in tissue Mn concentration between the GR and conventional varieties.

In Experiment II, yield of the glyphosate-resistant soybean variety KS 4202 RR was maximized by a combination of Mn applied as a starter 2 in. to the side and 2 in. below the seed at planting, plus a foliar application at the same rate applied at the 4 leaf stage (Table 1). A starter alone application at either 0.33 or 0.66 lb Mn/A did not give results equaling the combination of starter and foliar treatment. Application of foliar-applied Mn at 0.33 lb Mn/A at the V4, V8, and R2 stages of growth gave yields equal to the starter plus one foliar application at the V4 stage. One or two foliar applications were not as effective as the starter plus foliar or the three foliar applications. Higher rates of starter-applied Mn and single foliar applications will be investigated next year in order to determine if timing is critical or if higher rates applied earlier in the growing season may be as effective as lower rates applied more frequently.

This research provides evidence that the GR soybean variety used in this study did not accumulate Mn in the same manner as the conventional variety, and did respond to application of Mn in this high-yield environment. **BC**

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## InfoAg 2009 Set for July 14-16

InfoAg 2007 was a resounding success, with over 570 participants sharing their ideas, questions, and experiences in application of precision technology, data management, electronic communication, and remote sensing. Over 100 presentations, a 60-booth exhibit hall, a pre-conference tour, and ample networking opportunities made this one of the best conferences yet for promoting the adoption of modern technology in crop and soil management. More details about the con-

ference, including PDF files of most of the presentations, are available at the website: [www.infoag.org](http://www.infoag.org).

Dates for the next Information Agriculture Conference have been set for July 14-16, 2009, again in Springfield, Illinois. **BC**

