



Effect of Foliar Fertilization on Cotton Yield Impact Agronomics. Pantego, NC

Experiment Info:

Planted:	05/21/15
Harvest:	11/05/15
Yield Goal:	1000 lb/A
Target Fert.:	
Variety:	PHY333WR
Population:	43,500
Row Width:	36"
Prev. Crop:	soybeans
Plot Size:	4 row x 40'
Replications:	4

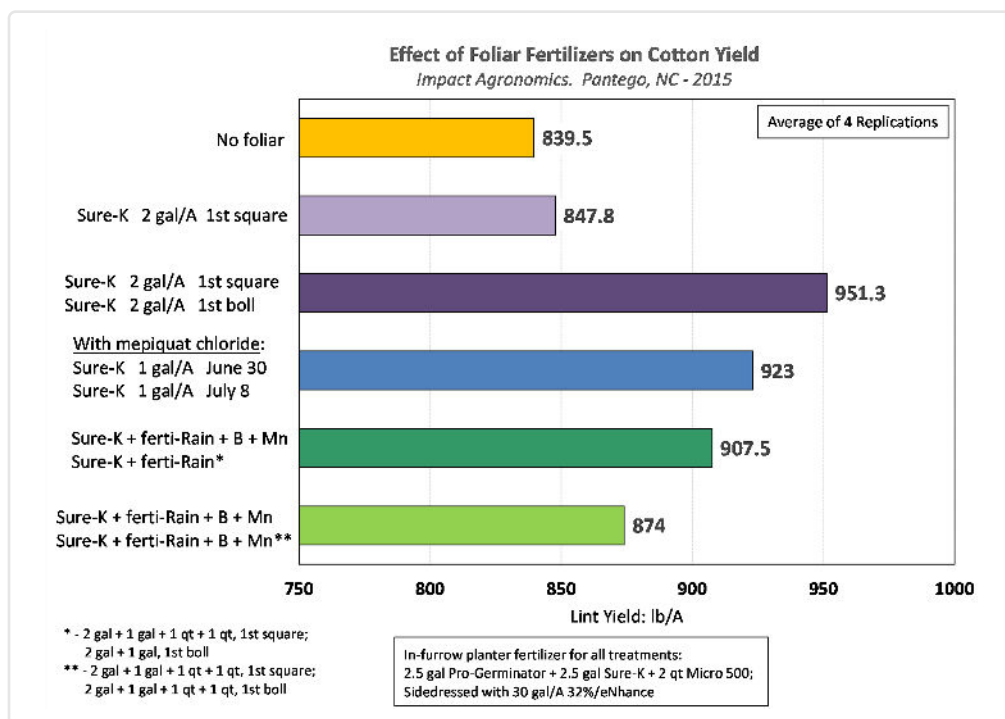
Soil Test Values (ppm):

pH:	5.6
CEC:	9.4
%OM:	7.8%
Bray P1:	
Bicarb P:	
K:	
S:	
%K:	
%Mg:	
%Ca:	
%H:	
Zn:	
Mn:	
B:	

Objective:

Evaluate different foliar applied fertilizer programs for effect on cotton lint yield.

Foliar fertilization is a topic of interest for about all crops. The challenge is that results often vary in performance. However, cotton is a crop that has been shown to respond to foliar applied AgroLiquid nutrition. And since cotton receives so many spray applications, there is ample opportunity for nutrient application. In fact, this particular experiment was sprayed 21 times after emergence through defoliation with herbicides, insecticides, growth regulators (mepiquat chloride) and defoliant. Since potassium is often a key nutrient, Sure-K was included in all foliar applications. It was either applied alone or with other nutrients. In testing at this location in 2014, Sure-K applied alone produced higher lint yield than applications of Sure-K plus other nutrients. The reason is not understood. But it was gratifying to see a yield response with foliar nutrition. (Note: cotton lint samples were collected for fiber quality analysis. Results were not available at this time.)



Conclusions:

- Yields were around 40% lower in 2015 vs 2014 due to excess rain over the summer. But similar foliar responses were seen.
- The highest yielding foliar treatment was that of two applications of Sure-K alone, as was the case in 2014. The addition of other fertilizer products did not produce more yield, and in fact, produced less than that of Sure-K alone. The reason for this is not clear, whether it is some sort of antagonism or something.
- There was a yield response when Sure-K was applied with the growth regulator mepiquat chloride. The plan was for application at the first two applications only. But there were four applications over the growing season, and future research should examine the effects of Sure-K applied at each application.