

Foliar Fertilization of Cotton. Carolina Ag Research. Elko, SC

Experiment Info:

Planted:	05/08/14
Harvest:	10/27/14
Yield Goal:	-
Target Fert.:	-
Variety:	PHY499
Population:	43,560
Row Width:	36"
Prev. Crop:	cotton
Plot Size:	12' x 40'
Replications:	4

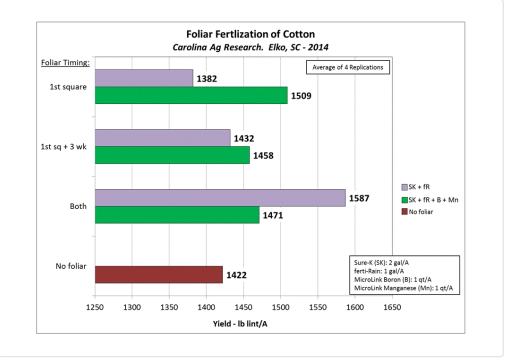
Soil Test Values (ppm):

Son rest values (ppm)	
рН:	6.1
CEC:	3.8
%OM:	1.1
Bray P1:	82
Bicarb P:	-
K:	86
S:	-
%K:	5.8
%Mg:	17.5
%Ca:	62.2
%H:	14.2
Zn:	-
Mn:	-
B:	-

Objective:

Determine the interactions of nutrient combinations by growth stage for application of foliar fertilizers.

Cotton receives multiple foliar applications of a variety of agricultural products each season, such as insecticides, growth regulators, herbicides and sometimes, fertilizers. However, foliar fertilizers are often inconsistent in performance. In this experiment, applications of a mixture of Sure-K + ferti-Rain (at 2 + 1 gal/A) were applied alone or in combination with MicroLink Boron + Manganese (each at 1 qt/A) in three different growth stage timings: first square, three weeks after first flower, and at both stages. The nutrient products were broadcast applied with water carrier at 15 gpa and 30 psi. These treatments were applied to cotton that was well fertilized otherwise. Yield results are in the chart below.



LSD(0.1): 78. CV: 4.4%

Conclusions:

- There was an apparent linear yield increase with increased application timing in the absence of the additional micronutrients (the purple bars). But only the double application resulted in a lint yield higher than no foliar.
 This is why trying to understand foliar fertilization is difficult. Perhaps future testing should include petiole nutrient analysis.
- However, all of the applications of the foliar with the additional B and Mn (green bars) resulted in yields higher than that with no foliar. The highest yield was from the early application (1st square).