

Influence of various foliar fertilizer products on the yield of fresh market sweet corn. Experiment 14-203.

Experiment Info:	
Exper.:	14-203
Planted:	May 16th
Variety:	Obsession II
Population:	24,000
Plot size:	5' x 25'
Replications:	Four
Harvest:	one 3-Aug-14

Soil Test Values (ppm):	
Farm/ Field	205
pH:	6.1
CEC:	7
%OM:	1.9
Bray P1:	42
Bicarb P:	-
K:	111
S:	11
%K:	4.7
%Mg:	14.6
%Ca:	66.7
%H:	13.6
% Na:	0.4
Zn:	1.8
Mn:	13
Fe:	84
Cu:	0.4
B:	0.4

Objective:

Determine which foliar fertilizer application, if any, can be used to increase the yield of fresh market sweet corn.

Materials & Methods:

All plots were planted utilizing a 6 row Monosem planter. The plot was planted on May 16th and then side dressed with coulter injection on June 16th with 28%+ eNhanse at 30 GPA as shown in Table SC1. Corn development was approximately V-4 when side dressed.

Foliar fertilizer applications were completed when a majority of the corn in the plot area reached the V-6 growth stage. Each plot was two rows wide and 25 ft in length. All the products and rates applied are fully described in Table SC2. These fertilizers were combined with water and applied in a total volume of 15 gallons per acre using a backpack sprayer operated at approximately 40 PSI.

At harvest, only marketable sized ears were handpicked and removed from each plot. Plots were only harvested once for this trial. Any small and/or immature ears were left in the plots at the time of harvest. The weight and counts from both rows of the plot were combined for data analysis.

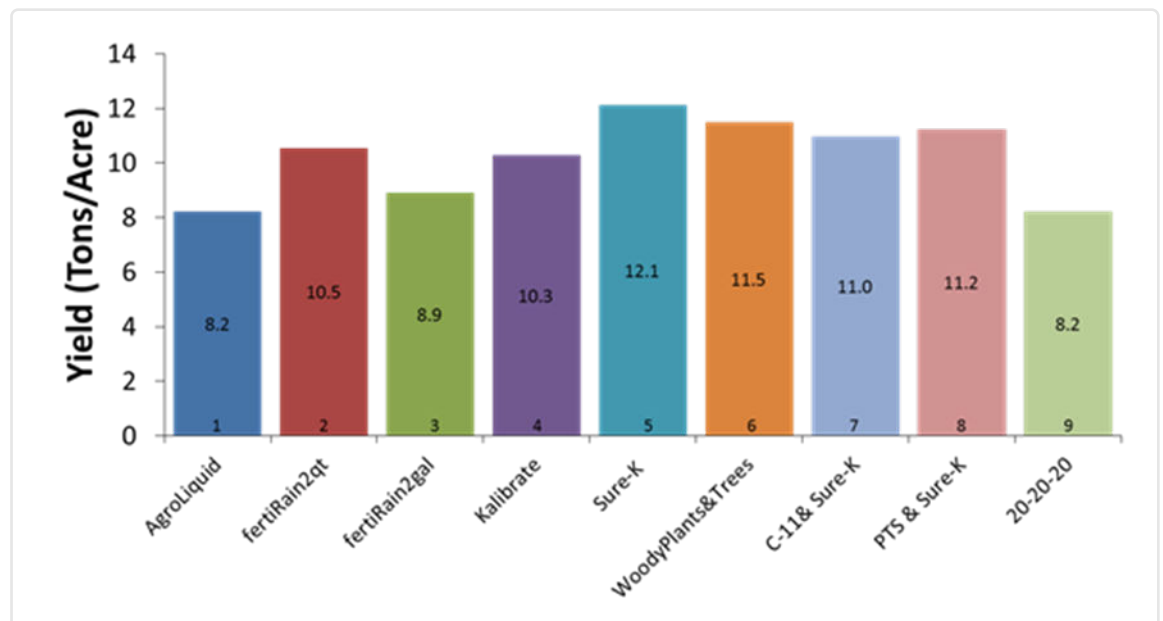


Figure SC1. Sweet corn yield as influenced by a single application of various foliar fertilizer products.

Table SC-1. Affect of foliar fertilizer application ons sweet corn yields. 2014. Experiment 14-203

	Treatment	Rate/A (gal/A)	Method of Application	Yield Tons/A	Nutrient s Lb/A	NUE**
1	HN+PG + SK + Micro 500+ Mn eN28%	16+3.4+8.5+3 qt 30	planter 2x2 sidedress	8.22	160.57	102.34
2	HN+PG + SK + Micro 500+ Mn eN28% ferti-Rain	16+3.4+8.5+3 qt 30 2 qt	planter 2x2 sidedress foliar	10.54	161.46	130.51
3	HN+PG + SK + Micro 500+ Mn eN28% fertiRain	16+3.4+8.5+3 qt 30 2 gal	planter 2x2 sidedress foliar	8.91	164.14	108.61
4	HN+PG + SK + Micro 500+ Mn eN28% Kalibrate	16+3.4+8.5+3 qt 30 2 qt	planter 2x2 sidedress foliar	10.27	161.14	127.52
5	HN+PG + SK + Micro 500+ Mn eN28% Sure-K	16+3.4+8.5+3 qt 30 2 Qt	planter 2x2 sidedress foliar	12.10	160.99	150.37
6	HN+PG + SK + Micro 500+ Mn eN28% WoodyPlants&Trees	16+3.4+8.5+3 qt 30 2 qt	planter 2x2 sidedress foliar	11.48	161.26	142.42
7	HN+PG + SK + Micro 500+ Mn eN28% C-11&Sure-K	16+3.4+8.5+3 qt 30 2 qt & 2 qt	planter 2x2 sidedress foliar	10.97	161.17	136.08
8	HN+PG + SK + Micro 500+ Mn eN28% PTS+Sure-K	16+3.4+8.5+3 qt 30 2 qt+3 oz	planter 2x2 sidedress foliar	11.24	160.99	139.68
9	HN+PG + SK + Micro 500+ Mn eN28% 20-20-20	16+3.4+8.5+3 qt 30 2 lb	planter 2x2 sidedress foliar	8.22	161.77	101.58

Micronutrients not included in total fertilizer per acre calculations. **NUE = Nutrient Use Efficiency = Lbs Yield / Total Lb. N,P,K&S as Fertilizer Applied. *HN=High NRG-N, PG= Pro-Geminator, SK= Sure-K, PTS = Protristim, C-11 = experimental fertilizer

Conclusions:

All AgroLiquid foliar fertilizer products resulted in a yield increase.

From the established AgroLiquid products tested, the application of Sure-K at 2 qt. per acre (Trt #5) resulted in the highest observed yield. This was followed closely by a combination of Woody Plants & Trees (Trt #6).

While some may feel that increasing rates of applications can result in greater performance, look at treatments 2 & 3. Two quarts of fertiRain our performed two gallons of the same product. Sometimes more is not always better.

The use of a common 20-20-20 foliar with micronutrients was the only treatment to show no yield increase.

The Nutrient Use Efficiency (NUE) values tracked very closely with the plot yields. While there was additional fertilizer applied with each foliar treatment, yields were increased beyond what would typically be expected if this small amount of actual nutrient had been applied to the soil so efficiency ratings changed dramatically.

<Unrelated

<Unrelated Table>