

**Experiment Info:**

Planted:	4/23
Variety:	Hilleshog 9173RR
Population:	45,000
Row Spacing:	30"
Previous Crop:	Soybean
Plot Size:	15'x 620'
Replications:	1
Harvested:	10/5

**Soil Test Values (ppm):**

pH:	7.1
CEC:	11.8
% OM:	1.2
Bicarb:	17
K:	378
S:	6
% K:	8
% Mg:	24
% Ca:	67
% H:	0
% Na:	1
Zn:	1.9
Mn:	4.6

**Objective:**

The Irrigation Research Foundation is a non-profit research farm set up for the purpose of agricultural research under intensive crop management in Northeastern Colorado. Strip-Tillage is becoming the leading cultural practice in this area. Strip till fertilizer was applied with an Orthman 1tRIPr machine that applied liquid fertilizer at two depths, 4" and 10" deep. There was a mistake where the same early strip till conventional treatment was used for all treatments, rather than having an AgroLiquid treatment for part of the treatments. But the experiment proceeded with different treatments applied at planting and foliar. So there was a conventional planter treatment and an AgroLiquid planter treatment both with and without a foliar treatment of ferti-Rain. Treatments and yield are in the following charts.

Fertilizer treatment applications for sugarbeets	
Strip-Till (3/28): 19-13-0: 10 gal/A at 4" and 13 gal at 10" (total applied: 48.3-31.8-0)	
Planter and Foliar Treatments	
1. Planter 2x2:	12.5 gal/A 10-34-0
2. Planter 2x2:	12.5 gal/A 10-34-0
Foliar:	1 gal/A ferti-Rain with 2nd Roundup application AND at canopy
3. Planter 2x2:	5 gal/A Pro-Germinator + 2 gal/A High NRG-N + 2 qt/A Micro 500
4. Planter 2x2:	5 gal/A Pro-Germinator + 2 gal/A High NRG-N + 2 qt/A Micro 500
Foliar:	1 gal/A ferti-Rain with 2nd Roundup application AND at canopy
Pivot application: 21 gal/A 32-0-0 (73.5 lb-N/A)	

Fertilizer Comparisons in Sugarbeets			
Irrigation Research Foundation, Yuma, CO - 2012			
Conventional		AgroLiquid	
No foliar	+fertiRain	No foliar	+fertiRain
		Tons/A	
30.8	32.5	33.2	32.7
		% sugar	
16.6	18.0	17.1	18.3
		lb sugar/A*	
10,081	11,571	12,242	11,813

\*-Sugar Loss to Molasses included

**Conclusions:**

- Highest sugar yield was with the AgroLiquid planter program. As has been seen before, foliar application did not increase yield when crop nutrition requirements are met with a good soil program. (Although an increase in % sugar was observed.)
- Foliar application with ferti-Rain dramatically increased beet yield, % sugar and lb sugar/A with the conventional program that did not have a complete program of micronutrients.
- This is the second year of yield and quality improvements at this location with the AgroLiquid program for sugarbeets.