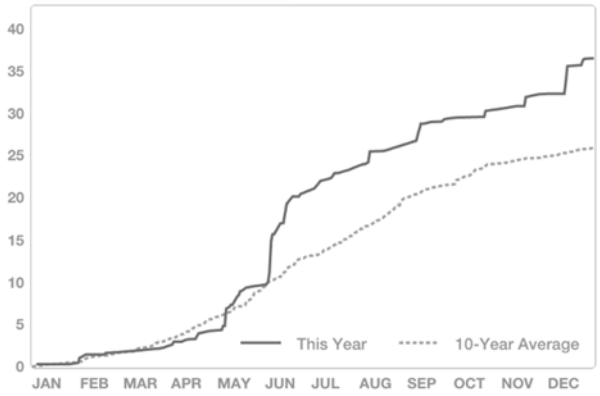
Nebraska On-Farm Research Network

Sugar on Sorghum

Study ID: 009129201502
County: Nuckolls
Soil Type: Hastings silt loam;
Planting Date: 5/30/15
Harvest Date: 10/15/15
Population: 65,000
Row Spacing (in.) 30
Hybrid: Dekalb 37-07
Reps: 10
Previous Crop: Wheat
Tillage: No-Till
Herbicides: ***Pre:*** 2 qt/ac Lumax and 32 oz/ac Touchdown on 4/28/15; 0.7 qt/ac Lumax, 32 oz/ac Touchdown and 0.5 lb/ac atrazine on 6/2/15
Post: 13 oz/ac Huskie and 1 lb/ac atrazine on 6/27/15
Seed Treatment: Poncho
Foliar Insecticides: unknown
Foliar Fungicides: unknown

Fertilizer: Injected 120 lb N/ac as liquid 32% on 4/14/15;
Broadcast 34 lb P/ac and 1 lb Zn/ac on 4/18/15
Note: Heavy rains at time of emergence thinned stands.
Irrigation: None
Rainfall (in.):



Introduction: This was the second year this producer has tried applying sugar to sorghum. The objective was to determine the effect of sugar applicaion on yield, economics, and lodging of sorghum. Rescue herbicide treatments in sorghum often lead to lodging, making harvest more difficult. After seeing the corn stalk strength results, the producer wondered if adding sugar to sorghum would help with lodging after adding a post rescue treatment of Huskie and Atrazine to his field. Three lb per acre of granulated sugar was applied in 10 gallons of water and sprayed in a paired comparison design to sorghum at V7. The sprayer was then filled with Huskie and Atrazine and applied to the entire field which included the plot area.

Results:

	Yield (bu/ac)†	Moisture (%)	Test Weight	Stand Count (Sept. 21)	Lodging (%) (Sept. 21)	‡Marginal Net Return ($/ac)
Check	130 A	14.3 A	61 A	56,700 A	1 A	468.00
Foliar Sugar	133 A*	14.6 A	60 A	57,000 A	1 A	477.48
P-Value	*0.1807*	*0.5633*	*0.4187*	*0.8756*	*0.6783*	*N/A*

†Bushels per acre corrected to 14% moisture.
*Values with the same letter are not significantly different at a 90% confidence level.
‡Net Return based on $3.60/bu sorghum, $1.32/ac treatment cost. No additional application cost is added as it is expected that this product would be applied with a post herbicide.

Summary: There was no statistical yield difference between the sugar and check treatments for yield, lodging, stand count or moisture. This is consistent with results from 2014.

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