Nebraska On-Farm Research Network

Sugar on Corn, Soybeans, or Sorghum

Protocol developed by: Jennifer Rees, UNL Extension Educator

Objective: To evaluate the effect of foliar sugar application on yield and economics.

Procedure: The following describe the treatments for soybean, corn, and sorghum. Note: If fertilizer or starter fertilizer is applied it needs to be applied to whole field.

Sugar on Soybeans:

Treatment A: Check – Drive through rows at R3 spraying water only.
Treatment B: Sugar – Apply 3 lbs/ac of granular sugar or 1 qt/ac of PlenTSweet or 13 oz/ac of liquid brown sugar in 10 gallons of water.

Data to be collected: yield, moisture, harvest stand counts, observations, % lodging, disease pressure, stand emergence differences.

Sugar on Corn and Sorghum:

Treatment A: Check – Drive through rows at V7-8 spraying water only.
Treatment B: Sugar – Apply 3 lbs/ac of granular sugar or 1 qt/ac of PlenTSweet or 13 oz/ac of liquid brown sugar in 10 gallons of water at V7-8.

Data to be collected: yield, moisture, harvest stand counts, any additional observations, % stalk rot, disease pressure.

Treatment Map:

We need at harvest a minimum of 6 pairs for adequate replication. More replications are desired. This study will ideally be evaluated over multiple years.

Even though there are 2 strips of "sugar" next to each other which may have been applied in one applicator pass, a **separate** weight must be

Replication 1	Check	Yield:
	Sugar	Yield:
Replication 2	Sugar	Yield:
	Check	Yield:
Replication 3	Check	Yield:
	Sugar	Yield:
Replication 4	Sugar	Yield:
	Check	Yield:
Replication 5	Check	Yield:
	Sugar	Yield:
Replication 6	Sugar	Yield:
	Check	Yield:
Replication 7	Check	Yield:
	Sugar	Yield:
Replication 8	Sugar	Yield:
	Check	Yield:

Grower Requirements:

1. Flag or mark GPS location of each treatment.
2. Provide all necessary inputs for crop production.
3. Complete background agronomic form about site and practices.
4. Collect yield data and grain moisture with weight wagon or yield monitor. If using yield monitor, please designate a separate "load" for each treatment and set up separate "products" names for each treatment harvested. Yield monitor must be **well calibrated**. Contact UNL Extension if assistance with this process is needed.
5. Collect stand counts at harvest.
6. Submit harvest data to UNL Extension within 30 days of harvest or by Dec. 15.
7. Allow UNL Extension to use submitted and collected data for research, educational, and informational purposes.

Nebraska On-Farm Research Network will:

1. Provide technical assistance in setting up replicated and randomized experimental design.
2. Provide assistance upon request with treatment implementation, flagging, stand counts, stalk rot tests, and recording yield.
3. Analyze raw data using statistical analysis and provide this information to the grower.

For more information about this study, contact Jenny Rees at 402-762-3644 or jenny.rees@unl.edu.