WISCONSIN-SORGHUM GROWTH EVALUATION

Elizabeth Remick, Matt Akins, Huawei Su, University of Wisconsin-Madison; Wayne Coblentz, USDFRC

Study objectives were to evaluate forage yield of photoperiod sensitive (PS) sorghums compared to non-PS sorghums and corn silage planted at two dates and harvested using single or multi-cut strategies. The study was conducted at the Hancock and Marshfield Agricultural Research Stations due to differences in soil characteristics (silt loam – Marshfield; sandy soil – Hancock).

A later planting date generally had a negative impact on yield, except at Marshfield. Forage yields were greater at Hancock compared to Marshfield. Single harvest yields were 2-3 times multiple harvest totals. The non-BMR sorghum-sudangrass had the greatest yields at Hancock (12 tons DM/acre), while PS sorghum-sudangrass (8 tons DM/acre) was greatest at Marshfield using a single cut system. Under a multiple harvest strategy, the sorghum-sudangrass varieties had the greatest yields.

In conclusion, some sorghum varieties produced similar forage yields to corn (8-12 tons DM/acre in Hancock; 5-8 tons DM/acre in Marshfield). These varieties may be useful to provide significant quantity of moderate quality forage for heifers with moderate nutritive needs. For high tonnage, a single cut system is recommended. Moisture level at harvest can be challenging as sorghums may be frost-killed before drying to an adequate ensiling moisture. Harvest should be delayed 1-2 weeks after a killing frost to dissipate prussic acid and allow drying. Photoperiod sensitive varieties did not lodge after a killing frost which may allow for additional drying time.