

WISCONSIN-Yield & Nutritive Value of Photoperiod-Sensitive Sorghum & Sorghum-Sudangrass
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The study objective was to evaluate the yield of Photoperiod Sensitive (PS) forage sorghum and sorghum-sudangrass compared to non-PS sorghum, sorghum-sudangrass, and corn silage planted at 2 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 soil - Marshfield; sandy soil - Hancock).

Results concluded some sorghum varieties are able to produce similar forage yields to corn in central Wisconsin. These varieties may be useful to provide a significant quantity of moderate quality forage for heifers or other livestock with moderate nutritive needs. For high tonnage, it is recommended to use a single cut system.

Moisture level at harvest can be challenging as sorghums often are frost-killed before drying to an adequate moisture for ensiling. Harvest should be delayed 1-2 weeks after a killing frost to dissipate prussic acid and allow for drying. Varieties reaching hard-dough stage were in the moisture range for silage harvest so a farmer could select a short to medium maturity (85-100 days) variety if concerned about dry-down time after frost.

Farmers can incorporate sorghums in the crop rotation as part of a double-cropping system after harvesting a cereal grain forage (e.g., triticale, rye, wheat) in May or early June, allowing an additional time to apply manure and produce a high-yielding crop. Cereal grain forage and sorghum forage work well as dairy heifer feeds.

Sorghum forage nutritive value meets pregnant dairy heifers needs (58-62% TDN). If energy level is lower, they can be used to help dilute excess energy of corn silages. Harvesting at a less mature stage increases protein and energy value but lowers yield. These less mature forages can be used in lactating cow rations to replace part of corn silage and possibly alfalfa or grass silage. The full report is available on the "Members Only" page on the MFA website at: www.midwestforage.org/membersOnly.php.