Forage Research Update
Wisconsin - Fall Growth Potential of Cereal-Grain Forages in Central Wisconsin
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Cereal grains are commonly used for fall, winter and spring grazing throughout the Southern Great Plains, but these forages have not been evaluated extensively as fall forage options in the north-central US. Beef and dairy producers could use cereal-grain forages to extend the fall grazing season, minimize supplemental hay or silage feeding, or to provide additional forage as silage either routinely or specifically following summer drought.

Figure 1. *Yields of 4 oat, 2 wheat and 1 triticale cultivars planted in early-August at Prairie du Sac, WI and harvested on 3 dates in fall 2006 and 2007 (data averaged over 2 years).*

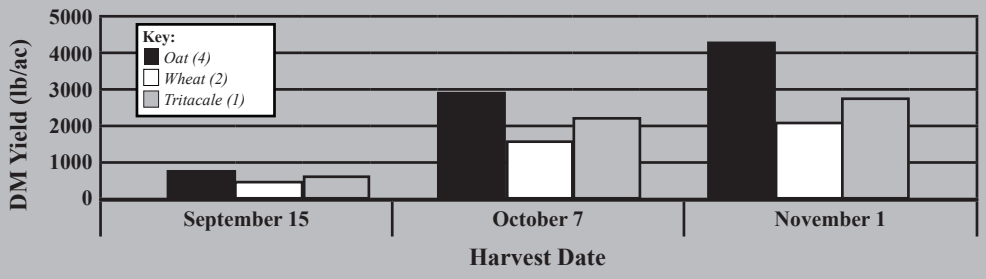
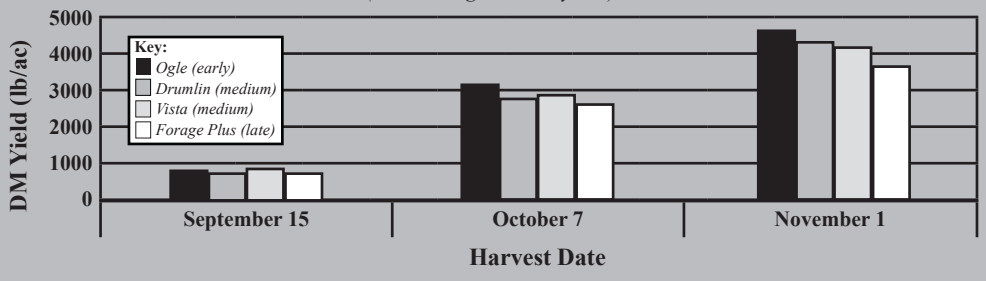


Figure 2. *Yields of early-, medium- and late-maturing oat cultivars established in early-August at Prairie du Sac, WI and harvested in 2006 and 2007 (data averaged over 2 years).*



Four spring oat varieties (Ogle, Drumlin, Vista and Forage Plus), two winter wheat varieties (Hopewell and Kaskaskia) and one triticale variety (Trical 2700) were planted in replicated plots on August 11, 2006, and August 13, 2007. Forages were no-till seeded into residual cereal-grain stubble and fertilized at planting with 50 lb N/ac as ammonium nitrate.

Yields of DM on three harvest dates (September 15, October 7 and November 1) are summarized in Figure 1. On all harvest dates, oat varieties maintained an approximate two to one advantage in yield over wheat and triticale was intermediate.

These differences are largely related to growth habit; oat and triticale had stem elongation with an early-August planting date, while wheat remained vegetative. Among oat varieties (Figure 2), yields were greatest for the earliest maturing variety (Ogle – 4730 lb/ac) and least for the latest maturing variety (Forage Plus – 3741 lb/ac). Other oat varieties produced intermediate yields.

A word of caution, however, independent studies at Marshfield, WI, during 2007 indicated that these oat variety yield relationships are reversed with earlier (mid-July) planting dates. Early-maturing oat varieties often have accelerated development under high summer temperatures and also tiller poorly, resulting in poor DM yields. With mid-July planting dates, late-maturing varieties, such as Forage Plus, are likely to provide much better fall yields.

In central Wisconsin, coupling an early-August planting date with selection of cultivars that exhibit stem elongation during the fall will maximize yields of DM before winter. Unfortunately, this production advantage is coupled with increased sensitivity to freeze damage or winterkill. Therefore, selecting these cultivars should be for very specific producer objectives; such as maximizing weight gains of a specific group of animals during fall and early winter, extending the fall grazing season for lactating cows or providing emergency forage following summer drought.