WISCONSIN - August-Sown Oat Provides High-Quality Fall Forage

Francisco Contreras-Govea and Ken Albrecht, University of Wisconsin

Oat has commonly been spring-sown and harvested in early summer. The relatively low nutritive value, particularly high NDF concentration, of oat forage has made it difficult to use in rations of livestock requiring high levels of digestible DM intake, eg. lactating dairy cows. At Arlington and Lancaster, WI, three oat varieties were sown August 8 vs. April 15, and forage was harvested 77 days after each planting (Table 1).

August-sown oat produced 3.0 ton DM/ac, only 13% less than spring-sown oat. However, oat forage produced in fall had substantially greater nutritive value than oat produced in early summer because of cooler temperatures and shorter days. NDF was less and NDF digestibility was remarkably greater in late-season compared to early-season oat forage. In addition, high water-soluble carbohydrate (WSC) concentration in fall-harvested oat forage should aid its fermentation when preserved as silage. Fall DM yields of the three cultivars were similar, but ForagePlus, a leafy and late-maturing cultivar, had much greater nutritive value than the other two cultivars. August sowing provides an opportunity for double cropping and a high quality fall forage option following early season cuttings of thin (old or winter-damaged) alfalfa stands.

Table 1. *Forage yield and nutritive value of three oat varieties 77 days after sowing in August vs. April at two locations in southern Wisconsin.*

Variety	Maturity	DM Yield	NDF		CP	Digest.	NDF Dig.
		T/ac	---------- % DM ----------				%NDF
Fall-harvested August sowing							
Jim	E. head	3.0	55	10	16	75	56
Gem	Boot	3.0	53	11	18	78	58
	Jointing	3.0	48	10	21	86	70
Early-summer-harvested spring sowing							
Jim	Milk	3.5	57	8	12	64	37
Gem	Milk	3.4	59	7	13	66	42