Forage Yield and Quality of Cool Season Cereals. (C06-carr105632-Oral)

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Abstract:

Barley, emmer, spelt, rye, and triticale cultivars were compared with oat for forage yield and quality in a multi-year study. Oat cultivars produced up to 8.3 Mg dry matter (DM)/ha. Triticale and rye yielded as much as 37% and 24% more DM/ha than oat, respectively ($P < 0.05$). Oat produced as much as 30% more DM/ha than barley in some years, but barley DM contained as much as 56 g/kg more crude protein (CP). A greater percentage of DM consisted of leaves for barley (24%) than oat (17%). The CP concentration of triticale and oat DM was greater than the CP concentration of rye forage. Emmer and spelt produced comparable amounts of DM containing a similar concentration of CP compared with oat. Intercropping cereals with pea increased forage CP concentration by approximately 20 g/kg but did not affect yield compared with sole cereal treatments. These results support the hypothesis that underutilized alternatives to oat are available in the Great Plains that are superior in forage yield (e.g., triticale) or quality (e.g., barley).

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