

Kernza^(R) Perennial Grain as a Dual-Use Crop for Forage and Grazing

A Sustainable Cropping Systems Technical Bulletin

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Kernza as a dual-use crop

Intermediate wheatgrass is perennial cool-season grass that has been used in pastures and for hay in North America for nearly a century. Over the last 30 years, plant breeders have been developing new lines of intermediate wheatgrass that have large seeds for use as a grain for human consumption. Grain from these new lines is called Kernza®. The perennial nature of this new grain crop provides environmental benefits. Commercial markets for Kernza are emerging which presents livestock producers an opportunity to manage intermediate wheatgrass as a dual-use crop for forage and grain production. This bulletin provides information on forage yield and quality of intermediate wheatgrass when harvested at times suitable for supporting grain production.

Kernza grain yield potential

Kernza grain yields harvested from advanced lines of intermediate wheatgrass such as the variety 'MN-Clearwater' can produce up to 600 lbs. per acre. This high-value grain is sold for brewing, distilling, milling into flour for use in pasta and baked goods, or used as a whole grain food ingredient.

Intermediate wheatgrass is often planted in rows in late summer, produces profitable grain yields the follow year for up to three years, and then can be converted into a hay crop.

<u>Spring forage</u>	<u>Summer straw</u>	<u>Fall forage</u>
500 – 1400 lbs./acre	2000 – 7000 lbs./acre	1000 – 3000 lbs./acre
20 – 25 % protein	5 – 10 % protein	12 – 18 % protein
180 – 230 RFV	60 – 90 RFV	100 – 170 RFV
		
Spring	Summer	Fall
<p>Winter</p> <p>Intermediate wheatgrass can be grazed or harvested for forage prior to stem elongation in the spring, the post-grain harvest straw can also be utilized, and the fall regrowth can also be grazed or</p>		