

WISCONSIN– Evaluating Nitrogen Rate Impact on Winter Cereal Forage Yield & Quality
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Winter cereals (cereal rye, triticale) planted after corn silage harvest can be grown as a productive forage crop while providing additional benefits, such as protecting soil and preventing manure nutrients and other fertilizer applications from leaving the field. This is important in corn silage systems where harvesting leaves soil bare between growing seasons. The use of N fertilizer in the spring is recommended to increase the yield and profit from growing a winter cereal forage crop. However, limited, unbiased, research-based information is available to determine the optimum N rate for maximizing the use of winter cereal forages. UW Extension and Nutrient and Pest Management Program specialists initiated on-farm experiments at 7 locations in fall 2021 to better understand response of winter cereals used as a forage crop to spring-applied N. Treatments of 0, 40, 80, 120, and 160 lb N/ac were evaluated. The study objective is to assess how N application rate affects winter cereal forage yield and quality. We are also interested in understanding effects of establishing and fertilizing a cereal forage on soil N dynamics. To accomplish this, deep soil nitrate samples were collected in the fall, early spring, and at cereal forage harvest to assess residual nitrate levels in the soil. Forage and soil samples are currently being analyzed. Preliminary results will be shared winter of 2023. The project will continue in 2022-2023.



Winter cereal rye, triticale mix. Oneida Nation Farm.



Harvesting winter cereal rye and triticale mix at Oneida nation farm.



Winter cereal rye and triticale mix Oneida Nation Farm.



Harvesting winter cereal rye and triticale mix at Oneida Nation Farm.



Winter cereal forages plot, Sunny Daze Dairy.



Winter cereal rye plot, Sunny Daze Dairy.