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#### Yield & Quality Comparisons:

Across the state, Winona has a medium high yield potential. With it's early maturity it has a high yield potential in the southern part of the state. It combines yield with a high test weight and groat percentage. It's groat percentage make it very suitable for food use. For additional yield comparisons, consult the Minnesota Variety Trials Results bulletin.

**Table 4:** Grain yield of Winona relative to comparably maturing oat varieties.

Variety	Relative Maturity (days)	North (%)	South (%)	State (%)
Reeves	0	63	91	85
Winona	0	99	95	96
Moraine	+2	101	97	98
Richard	+2	110	96	99

**Table 5:** Grain quality of Winona relative to comparably maturing oat varieties.

Variety	Test Weight (lbs/bu)	Groat (%)	Seed Color
Reeves	42	72.2	Ivory
Winona	41	72.5	Yellow
Moraine	40	72.9	Yellow
Richard	40	70.1	Yellow



**Minnesota  
Agricultural  
Experiment  
Station**

UNIVERSITY OF MINNESOTA

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*Winona*

*Oats*

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# Winona

'Winona' is a variety of oats developed and released by the Minnesota Agricultural Experiment Station (MAES) in 2005. Winona was selected from the cross Ogle/Amag/4/Starter//Obee/Midsouth/3/Starter.

Before release, Winona was tested as MN 98236 in state-wide yield trials from 2000 through 2004 and in 2003 and 2004 in the Uniform Early Oat Performance Nursery.

The variety is named after the southeastern Minnesota city of Winona. Founded by a steamboat captain in 1851, Winona's location on an island in the Mississippi made it a transportation hub and one of the nation's richest cities by 1900.

Breeder seed of Winona is maintained by the Minnesota Agricultural Experiment Station. Foundation seed is produced and maintained by the Minnesota Crop Improvement Association, 1900 Hendon Avenue, Saint Paul MN 55108 ([www.mncia.org](http://www.mncia.org)).

## Characteristics:

Winona is a yellow seeded oat with larger kernels. Winona is an very early maturity oat. Plant height averages 38 inches in Minnesota. It's shorter plant height shows good lodging resistance. Winona has a medium high yield potential with a high test weight and groat percentage.

## Planting:

Winona is especially adapted to the southern half of Minnesota and adjacent production areas.

**Table 1:** Seed characteristics of Winona.

Color	Yellow
Seed Count (#/lb)	14,700

**Table 2:** Seeding rate information for Winona.

	Early	Late
Optimum Stand (plants/ft <sup>2</sup> )	28	30
Seeding Rate (lbs/acre)	100	110

## Herbicides:

Winona has no restrictions for any herbicides labeled on oats in Minnesota. No products are currently labeled for control of wild oats in oats. Stampede EDF is labeled for control of yellow and green foxtail, but expect temporary yellowing of the crop especially under warmer conditions (> 85°F). 2,4-D (both amine and ester) is labeled for use in oats but tolerance of oats to 2,4-D is marginal and 2,4-D should only be applied if crop injury is acceptable.

## Disease Reactions:

Winona is a so-called slow-rusting variety for crown rust, indicating that disease progress is lower even if symptoms are visibly comparable to more susceptible varieties. This results in a slower buildup of the disease over time and reduces the impact of the disease on yield and quality

**Table 3:** Disease responses of Winona to common pathogens.

Disease	S	MS	MR	R
Stem Rust	x			
Crown Rust		x		
Loose Smut				x
Barley Yellow Dwarf Virus		x		