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Grain Yield and Quality Comparisons:

Walworth is a high yielding variety. Walworth is characterized by a medium test weight and medium grain protein with medium to high milling and baking characteristics. For additional yield comparisons, consult the *Minnesota Varietal Trials Results* bulletin.

Table 5: Grain yield of Walworth relative to comparable HRSW varieties (2003 - 2005)

Variety	Relative Maturity (days)	North (%)	South (%)	State (%)
Oklee	-1	100	101	101
Ulen	-1	99	110	105
Walworth	0	101	105	103
Briggs	0	101	102	102
Knudson	+2	106	110	109

Table 6: Grain quality of Walworth relative to comparable HRSW varieties (2004 - 2005).

Variety	Test Weight (lbs/bu)	Grain Protein (%)	Baking Quality
Oklee	60.4	15.0	low - medium
Ulen	59.3	15.0	medium
Walworth	58.4	14.6	medium - high
Briggs	60.1	14.8	medium
Knudson	59.5	14.3	medium - high



**Minnesota
Agricultural
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UNIVERSITY OF MINNESOTA

Walworth

Hard Red Spring Wheat

February 2006

Walworth

'Walworth' is a hard red spring wheat developed by the South Dakota Agricultural Experiment Station (SDAES) and released in 2001.

Before release Walworth was tested as SD3348 In South Dakota's state wide yield trials from 1999 through 2001 and in the Uniform Regional Spring Wheat Nursery in 2000 and 2001. Since 2000 Walworth has been tested in the Minnesota State Yield Trials.

The name Walworth was given to show appreciation to the Walworth County Crop Improvement Association for their support of the SDSU spring wheat breeding program. Walworth is protected under the Title V provision of the US Plant Variety Protection Act. Breeder seed of Walworth is maintained by the SDAES. In Minnesota foundation seed is produced and maintained by the Minnesota Crop Improvement Association, 1900 Hendon Avenue, Saint Paul MN 55108 (www.mncia.org).

Characteristics:

Walworth is an awned, tall semi-dwarf hard red spring wheat. The medium sized kernel are red with an oblong form. Walworth has an early maturity. The plant height averages 33 inches and the straw strength is intermediate. Walworth is relatively prone to lodging under high fertility conditions.

Planting:

Walworth is best suited for west central Minnesota and the southern part of the Red River Valley. Walworth is characterized by a rapid grain fill and is heat and drought tolerant, which makes it suitable for delayed planting.

Table 1: Seed characteristics of Walworth.

Coleoptile	2.3 inches
Seed Count	13,500 seeds/lbs

Table 2: Seeding rate information for Walworth.

	Early	Late
Optimum Stand (plants/ft²)	30	32
Seeding Rate (lbs/acre)	120	128

Herbicides:

Walworth has no restrictions for any other herbicides labeled on hard red spring wheat in Minnesota. Crop tolerance data is presented in Table 3.

Table 3: Crop tolerance of Walworth to postemergence grass herbicides.

Herbicide	Poor	Fair	Good
Assert			x
Axial			x
Discover			x
Everest		x	x
Puma			x
Rimfire		x	x
Silverado		x	x

Fungicides and Seed Treatments:

Walworth has no restrictions for any of the fungicides or seed treatments labeled on hard red spring wheat in Minnesota. Avoid planting Walworth into wheat or barley stubble to reduce the impact of the tan spot/ Septoria complex and common root rot. Scout actively for leaf and stripe rust and use fungicide to control the above mentioned diseases. Disease responses of Walworth to common pathogens are listed in Table 4.

Table 4: Disease responses of Walworth to common pathogens.

Disease	S	MS	MR	R
Common Root Rot		x	x	
Leaf Rust		x		
Stem Rust				x
Stripe Rust		x		
Tan spot/ Septoria complex	x	x		
FHB (disease severity)		x	x	
FHB (grain soundness)		x	x	
Black Point		No data		