The information in this publication is provided by the Minnesota Agricultural Experiment Station and compiled by Jochum Wiersma, Beverly Durgan and James Anderson. It is presented under authority granted by the Hatch Act of 1877 to conduct performance trials on farm crops and interpret the data to the public. Common root rot data is provided by NDSU, stem and leaf rust data is provided by the USDA-ARS. Permission is granted to reproduce tables only in their entirety, without rearrangement, manipulation of reinterpretation. Reproductions of any materials from this publication should credit the MAES as its source. Additional copies of this publication and fact sheets other varieties can be downloaded from the MAES website (www.maes.umn.edu) .

In accordance with the Americans with Disabilities Act, this material is available in alternative formats upon request. Please contact your University of Minnesota Extension Service office in your county or MAES at (612) 625-4211.

For information beyond that provided in this publication and the variety trials results, contact Jochum Wiersma at (218) 281-8629 or at wiers002@umn.edu

Grain Yield and Quality Comparisons:

Knudson is a very high yielding variety and has been one of the highest yielding varieties in the yield trials since its release. Knudson responds well to a high input production system. Knudson has medium test weight, medium grain protein, and medium to high milling and baking quality. AGP has an IP-program for Knudson. Contact an AGP elevator for details. For additional yield comparisons, consult the *Minnesota Varietal Trials* bulletin.

Table 5: Grain yield of Knudson relative to comparable HRSW varieties (2004-2005 data).

Variety	Relative Maturity (days)	North (%)	South (%)	State (%)
Trooper	-2	98	95	96
Granger	-2	103	111	108
Knudson	0	106	111	109
Norpro	+2	99	90	93
Polaris	+6	114	89	99

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

Variety	Test Weight (lbs/bu)	Grain Protein (%)	Baking Quality
Trooper	59.9	14.1	
Granger	59.6	14.7	
Knudson	59.5	14.3	medium - high
Norpro	57.5	14.5	medium
Polaris	58.0	13.6	

Minnesota Agricultural Experiment Station

UNIVERSITY OF MINNESOTA

Knudson

Hard Red Spring Wheat

February 2006

Knudson

'Knudson' is a hard red spring wheat developed and released by AgriPro Wheat in 2001. Knudson was selected from the cross Karl/Krona//N90-0669. Karl is a hard red winter wheat, Krona is a 1992 release of AgriPro, and N90-0699 is a sib of Hamer.

Before release, Knudson was tested as N96-0144 in AgriPro own yield trials and in the Uniform Regional Hard Red Spring Wheat Nursery in 1999 and 2000. Knudson has been entered in the Minnesota State Yield Trials since 2001.

The variety is named after Bob Knudson, retired AgriPro Northern Plains Business Manager. Knudson is protected under the Title V provision of the US Plant Variety Protection Act (PVP # 200100278). Breeder seed of Knudson is maintained by AgriPro Wheat, Berthoud Colorado. In Minnesota, certified seed can be purchased from an AgriPro Wheat Associate (www.agriprowheat.com).

Characteristics:

Knudson is an awned, medium height semi-dwarf hard red spring wheat with small to medium sized kernels. Knudson has a medium maturity and has moderately strong straw with acceptable lodging resistance. Plant height averages 31 inches. Knudson tillers well.

Planting:

Knudson is well adapted across the state. Knudson responds very well to a high input production system and is therefore well suited for the heart of the Red River Valley. Knudson is flexible with regard to delays in planting .

Table 1: Seed characteristics of Knudson.

Coleoptile	2.3 inch
Seed Count	14,500 seeds/lbs

Table 2: Seeding rate information for Knudson.

	Early	Late
Optimum Stand (plants/ft²)	30	32
Seeding Rate (lbs/acre)	110	120

Herbicides:

Knudson has no restriction for any other herbicide labeled on HRSW in Minnesota. Crop tolerance data to most common grass herbicides are presented in Table 3.

Table 3: Crop tolerance of Knudson 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 & Seed Treatments:

Knudson has no restrictions for any of the fungicides or seed treatments labeled on HRSW in Minnesota. Knudson. A seed treatment is recommended when planting Knudson in field with a known history of common root rot. Consider the use of a fungicide to suppress FHB. The disease responses of Knudson to common pathogens are listed in Table 4

Table 4: Disease responses of Knudson to common pathogens.

Disease	S	MS	MR	R
Common Root Rot		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		