

2015 VARIETAL RECOMMENDATION

SY SOREN

Syngenta Seeds, Inc. requests that “SY Soren” hard red spring wheat be considered for variety recommendation in the state of Montana. We move that SY Soren be recommended for all districts except 1 under irrigation. Additionally, we move SY Soren be recommended for districts 2 and 6 under dryland.

SY Soren is a hollow stemmed, hard red spring wheat developed by Syngenta Seeds, Inc. and released to AgriPro Associates in 2011. PVP, Title V certificate was issued in 2012. SY Soren was derived from the cross “Norpro/Kelby”. It has medium maturity and very good test weight. It is a short semidwarf, similar to Brennan. Straw strength is very good, between Kelby and Kuntz. It is resistant to stem rust and moderately resistant to leaf rust. It has very good tolerance to Fusarium head blight. Overall quality of SY Soren is acceptable. Protein has been very high averaging nearly 1% higher than Vida.

SY Soren has shown good adaptation across the Northern Plains including several areas in Montana. It has been tested in MSU trials for the past four seasons. Its best performance has been in dryland trials at Bozeman, Conrad and Sidney. It compares favorably for yield and/or protein to the predominant varieties grown in these areas. Limited data is available under irrigation but SY Soren would provide for very good tolerance to Fusarium head blight compared to many of the currently grown varieties (see Syngenta Fusarium data below).

Table 1. Yield (bu/ac) of SY SOREN vs. a set of recommended varieties, 2011-2014

Variety	Districts								All Locations
	1 Kalispell	2 Bozeman	3 Huntley	4 Moccasin	5 Conrad	5 Havre	6 Sidney (Dry)	6 Sidney (Irrigated)	
SY SOREN	72.3	59.6	47.2	32.0	82.0	42.5	43.9	67.5	55.9
THATCHER	47.5	42.4	35.8	25.6	58.8	35.4	30.4	53.6	41.2
FORTUNA	67.3	52.4	46.1	30.7	70.1	39.8	37.3	53.4	49.6
REEDER	79.0	57.4	50.3	32.4	81.4	45.5	<u>45.4</u>	<u>76.1</u>	58.4
MCNEAL	<u>77.2</u>	56.3	46.1	33.3	79.3	41.2	39.3	72.0	55.6
CHOTEAU	70.4	55.7	49.1	31.0	76.0	40.8	39.8	65.2	53.5
VIDA	73.4	<u>63.4</u>	52.6	<u>34.5</u>	80.0	<u>48.6</u>	45.3	71.9	<u>58.7</u>
DUCLAIR	76.9	58.1	<u>53.2</u>	33.6	80.4	46.3	39.6	69.8	57.2
Loc*Years	4	4	4	4	4	4	3	3	30
LSD (0.05)	12.4	5.2	5.4	4.1	8.6	4.9	7.1	NS	-

LSD : calculated from 20 varieties including eight varieties above

Table 2. Agronomic characteristics of SY SOREN vs. a set of recommended varieties, 2011-2014

Variety	Test weight (lb/bu)	Grain protein (%)	Plant height (inches)	Heading date (Julian)	Heading date (calendar)	Stem solidness (5-25)	Sawfly cut (%)	Stripe rust (%)	Lodging (%)
SY SOREN	59.2	15.1	28.0	180	29-June	7.5	4.1	35.3	0.0
THATCHER	56.7	<u>15.1</u>	<u>38.3</u>	183	2-July	7.8	9.2	<u>52.3</u>	<u>32.8</u>
FORTUNA	<u>59.6</u>	14.9	36.7	180	29-June	18.0	8.2	30.6	10.5
REEDER	59.5	14.7	31.2	180	29-June	7.9	10.2	22.4	6.4
MCNEAL	58.1	14.7	31.2	181	30-June	7.6	<u>19.8</u>	35.1	0.0
CHOTEAU	58.4	14.9	29.3	180	29-June	<u>21.8</u>	10.7	28.0	1.1
VIDA	58.5	14.3	30.4	181	30-June	12.5	4.1	24.0	4.5
DUCLAIR	57.9	14.5	30.4	<u>178</u>	<u>27-June</u>	19.8	9.3	30.3	2.8
Loc*Years	30	30	30	30	30	4	4	4	3

Table 3. Milling and bake characteristics of SY SOREN vs. a set of recommended varieties, 2012-2013

Variety	Wheat Protein (%)	Single Kernel Hardness	Flour Yield (%)	Flour Protein, (%)	Flour Ash (%)	Mixing Time (min)	Mixing Water Absorption (%)	Bake Mixing Time (min)	Bake Water Absorption (%)	Loaf Volume (cc)
SY SOREN	15.9	80.7	61.1	13.8	0.41	4.8	66.6	9.0	76.6	1170.0
THATCHER	15.8	80.4	62.2	13.8	0.40	4.1	64.9	7.5	74.7	1219.4
FORTUNA	15.5	74.4	63.1	13.7	0.42	3.7	64.8	6.3	75.0	1194.4
REEDER	15.6	78.4	62.9	13.7	0.38	3.9	65.6	5.8	75.1	1208.8
MCNEAL	15.6	<u>95.4</u>	59.4	<u>13.9</u>	0.42	<u>6.9</u>	<u>67.8</u>	<u>11.7</u>	<u>78.1</u>	<u>1271.3</u>
CHOTEAU	15.3	75.5	63.6	<u>13.9</u>	0.38	4.1	66.3	6.7	75.8	1202.9
VIDA	14.7	80.7	<u>67.4</u>	13.1	0.38	3.9	65.5	6.5	74.9	1167.4
DUCLAIR	15.4	73.5	62.3	13.5	0.39	5.6	65.7	9.0	75.5	1243.1
Loc*Years	8	8	8	8	8	8	8	8	8	8
LSD (0.05)	0.5	3.5	3.8	0.6	0.02	0.6	1.3	1.2	1.4	41.7

LSD : calculated from 20 varieties including eight varieties above

Table 4. Fusarium score of SY SOREN vs. selected varieties

Variety	Fusarium Score			
	CH Visual (1-9)	CH FDK* (per 1000k)	BH FDK (per 1000k)	NDSU rating
SY SOREN	3	12	19	M
VIDA	5.3	172	95	-
CHOTEAU	<u>8</u>	87	<u>161</u>	-
SY TYRA	5	17	80	S
VELVA	5	<u>206</u>	78	MS
WB-DIGGER	5.3	65	74	MS
GLENN	2	12	30	MR

CH : Coleharbor, BH : Berthold,
FDK : Fusarium Damaged Kernels

