

Small Grain QuickFacts: Hard Red Spring Wheat
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<http://plantsciences.montana.edu/foundationseed/quickfacts>

CHOTEAU – Choteau was derived from the cross of MT 9401/MT 9328. Choteau is a semidwarf hard red spring wheat with solid stems conferring tolerance to the wheat stem sawfly. Choteau is resistant to the prevalent race of stem rust in Montana. Choteau has good grain protein and acceptable milling and baking quality.

DUCLAIR - Duclair was derived from a cross of Choteau//Reeder/Scholar. Duclair is a solid stem semidwarf hard red spring wheat with white glumes and awns. Compared with Choteau, Duclair is one day earlier in heading date and one inch taller. Duclair has slightly fewer solid stems than Choteau and generally has more solid stems than Fortuna. Duclair is resistant to the prevalent races of stem rust in Montana. Duclair exhibits good milling and baking traits.

VIDA - Vida was derived from the cross of Scholar/Reeder and is a semidwarf hard red spring wheat with white glumes and awns. Vida is moderately resistance to leaf and stripe rust but is moderately susceptible to stem rust. Vida has good milling and baking characteristics.

WB9879CLP - WB9879CLP was derived from the cross of Choteau*3//Choteau/IMI8134 made in 2004 to be used as a two gene Clearfield wheat. WB9879CLP heads about one and a half days later than Choteau while plant height is the same as Choteau. WB9879CLP has solid stems similar to Choteau. WB9879CLP exhibits acceptable milling and baking quality traits similar to Choteau. WB9879CLP is currently licensed to WestBred, a unit of Monsanto.

EGAN - Egan has resistance to the orange wheat blossom midge (OWBM). Egan has shown good yield potential in northwestern Montana, and has relatively high grain protein content and resistance to stripe rust. Egan should be grown in a blend with a OWBM-susceptible variety (90% Egan – 10% susceptible) to lessen the possibility that the OWBM will overcome the resistance.

LANNING – ‘Lanning’ was released by the Montana Agricultural Experiment Station due to its yield potential in dryland areas of Montana and its superior end-use quality. Lanning was derived from the cross ‘Glenn’/MT0747 by single seed descent beginning in the F₂ generation. Lanning has grain yield similar to ‘Vida’ with higher grain protein and stronger gluten characteristics than Vida. Lanning is hollow-stemmed, suggesting that it will be susceptible to damage caused by the wheat stem sawfly.

NS PRESSER CLP – ‘NS Presser CLP’ hard red spring wheat (*Triticum aestivum* L.) was developed by the Montana Agricultural Experiment Station and released in 2016 to the commercial partner Northern Seed LLC. NS Presser CLP is a two-gene Clearfield wheat intended for use with the selective imidazolinone herbicide imazamox (Beyond, BASF Corp.). NS Presser CLP was developed by a single backcross of alleles for resistance to the imidazolinone herbicide class into the recurrent parent ‘Vida’. Yield trials at sites in Montana showed that NS Presser CLP has yield potential under dryland production similar to Vida.

All varieties are covered by PVP and research fees are collected for (CHOTEAU, DUCLAIR, VIDA, EGAN, and LANNING).

Spring Wheat Variety Performance Evaluations: <http://plantsciences.montana.edu/crops>

Table 1. Agronomic parameters for selected varieties in the advanced spring wheat nursery, 2014-2017

VARIETY	KALISPELL, BOZEMAN, HUNTLEY, MOCCASIN, CONRAD, HAVRE, SIDNEY(DRY), & SIDNEY(IRRIGATION)						BOZEMAN
	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN)	HEADING (JULIAN DAYS)	HEADING DATE	STEM SOLIDNESS (5-25)
BRENNAN	56.0	61.2	15.1	28.2	171	JUNE 20	9.3
SY SOREN	58.6	60.2	15.1	28.1	173	JUNE 22	8.0
SY INGMAR	57.8	60.3	15.0	29.3	173	JUNE 22	9.3
WB GUNNISON	57.2	60.3	13.9	28.5	172	JUNE 21	11.0
CORBIN	58.1	60.3	14.5	30.3	171	JUNE 20	11.1
LCS PRO	59.9	60.1	14.3	33.3	172	JUNE 21	7.1
REEDER	61.1	60.3	14.6	31.3	173	JUNE 22	7.3
MCNEAL	58.0	58.8	14.6	31.0	174	JUNE 23	7.6
CHOTEAU	56.2	59.5	14.7	29.4	172	JUNE 21	20.2
VIDA	62.5	59.3	14.2	30.4	173	JUNE 22	11.3
DUCLAIR	60.1	58.8	14.4	30.7	171	JUNE 20	17.2
EGAN	56.7	58.7	16.0	30.2	174	JUNE 23	7.6
LANNING	60.7	59.6	14.7	29.4	171	JUNE 20	6.8
WB9879CLP	57.2	59.8	14.8	29.4	173	JUNE 22	20.1
NS PRESSER CLP ¹⁾	59.0	59.1	13.8	30.3	173	JUNE 22	7.8
AVERAGE	58.6	59.8	14.7	30.0	172	JUNE 21	10.8
N=LOC*YEARS	N=30	N=30	N=30	N=30	N=30	N=30	N=4

1) two year's data ('16-'17)

Table 2. Grain yield (Bu/Ac) for selected varieties in advanced spring wheat nursery across the Montana (8 environments), 2014-2017

VARIETY	Kalispell Dryland	Bozeman Dryland	Huntley Dryland	Moccasin Dryland	Conrad Dryland	Havre Dryland	Sidney Dryland	Sidney Irrigated	Overall 8 Environments
BRENNAN	79.4	50.2	68.9	33.4	61.5	37.7	39.7	77.1	56.0
SY SOREN	89.2	55.6	67.2	31.2	64.7	39.9	39.3	81.5	58.6
SY INGMAR	87.9	55.1	68.5	31.6	62.7	40.1	38.6	78.3	57.8
WB GUNNISON	94.8	53.7	65.7	32.7	67.4	36.0	29.6	77.8	57.2
CORBIN	91.8	54.3	70.2	30.2	68.4	37.8	32.6	79.2	58.1
LCS PRO	102.7	59.0	70.2	31.1	68.0	39.8	31.5	77.3	59.9
REEDER	92.3	54.9	69.8	33.9	72.8	40.6	41.2	83.2	61.1
MCNEAL	90.9	54.1	63.1	34.6	65.4	39.2	36.4	80.7	58.0
CHOTEAU	87.2	53.8	65.8	31.0	61.0	35.7	34.9	80.7	56.2
VIDA	97.9	63.6	72.5	32.5	70.3	42.6	41.9	79.0	62.5
DUCLAIR	93.8	53.6	73.3	33.2	66.3	38.8	37.0	85.0	60.1
EGAN	94.7	48.2	68.8	30.9	63.8	38.2	32.2	76.6	56.7
LANNING	90.4	59.8	69.2	34.8	68.4	40.5	40.7	82.3	60.7
WB9879CLP	85.9	53.2	66.4	34.7	66.3	37.7	32.3	81.4	57.2
NS PRESSER CLP ¹⁾	77.5	61.6	78.0	34.1	67.0	35.3	39.0	79.4	59.0
AVERAGE	90.4	55.4	69.2	32.6	66.3	38.7	36.4	79.9	58.6
N=LOC*YEARS	N=4	N=4	N=3	N=4	N=4	N=4	N=3	N=4	N=30

1) Two year's data ('16-'17)

Table 3. Mill and bake quality for selected varieties in the advanced spring wheat nursery, 2014-2017

VARIETY	WHOLE GRAIN		FLOUR ANALYSIS		MIXOGRAPH ANALYSIS			BAKE ANALYSIS		
	PROTEIN (%)	HARDNESS (%)	YIELD (%)	PROTEIN (%)	TOLERANCE	TIME (MIN.)	ABSORP. (%)	TIME (MIN.)	ABSORP. (%)	LOAF VOLUME (CC)
BRENNAN	15.4	74.1	69.7	14.1	3.7	3.1	66.2	4.8	76.2	1091
SY SOREN	15.3	75.3	69.2	13.9	3.7	3.7	66.6	7.8	76.4	1146
SY INGMAR	15.3	78.3	71.5	14.2	4.7	7.7	71.3	16.0	81.4	1224
WB GUNNISON	14.1	80.8	68.2	12.7	5.1	8.4	67.2	15.1	78.4	1146
CORBIN	14.8	70.1	71.3	13.5	3.2	5.4	66.6	13.4	76.6	1088
LCS PRO	14.6	77.9	71.9	13.7	4.5	5.8	71.1	11.7	81.3	1157
REEDER	15.1	74.4	70.2	13.9	2.8	3.5	66.9	6.1	76.6	1151
MCNEAL	14.9	89.5	68.5	13.7	5.2	7.9	69.1	14.2	79.1	1240
CHOTEAU	15.1	69.4	70.8	14.0	3.1	3.7	67.5	6.9	77.3	1170
VIDA	14.7	77.2	72.4	13.5	2.8	3.8	66.7	7.0	76.3	1159
DUCLAIR	14.8	68.6	70.4	13.6	4.3	4.9	67.2	8.9	76.9	1223
EGAN	16.3	79.4	69.2	15.0	5.7	9.4	72.4	18.6	82.9	1324
LANNING	15.0	71.8	70.8	14.0	3.8	4.4	67.8	9.0	78.1	1208
WB9879CLP	15.1	65.1	69.5	13.9	2.2	2.3	65.3	3.5	74.3	1056
NS PRESSER CLP ¹⁾	14.5	71.4	72.8	13.2	2.0	3.8	67.0	9.4	76.4	1009
AVERAGE	15.0	74.9	70.4	13.8	3.8	5.2	67.9	10.2	77.9	1160
N=LOC*YEARS	N=12	N=12	N=12	N=12	N=12	N=12	N=12	N=12	N=12	N=12

1) Two year's data ('16-'17)