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 F_2 generation. Lanning has grain yield similar to 'Vida' withhigher 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, 2015-2018

VARIETY	KALISPELL, BOZEMAN, HUNTLEY, MOCCASIN, CONRAD, HAVRE, SIDNEY(DRY), & SIDNEY(IRRI)						BOZEMAN
	YIELD (bu/ac)	TEST WEIGHT (lb/bu)	PROTEIN (%)	PLANT HEIGHT (inch)	HEADING (JULIAN DAYS)	HEADING DATE	STEM SOLIDNESS (5-25)
SY INGMAR	59.0	**61.4**	15.1	29.0	172	JUNE 21	8.4
SY Valda	62.8	61.1	14.2	29.0	172	JUNE 21	7.5
WB GUNNISON	58.8	61.1	13.8	28.5	171	JUNE 20	11.0
CORBIN	58.9	61.1	14.5	30.2	**170**	**JUNE 19**	10.9
THATCHER	48.5	58.7	15.1	**37.6**	175	JUNE 24	7.6
FORTUNA	52.8	60.7	14.6	35.7	172	JUNE 21	15.3
LCS PRO	60.7	61.1	14.5	33.1	171	JUNE 20	7.3
REEDER	62.3	60.9	14.7	31.3	172	JUNE 21	6.6
MCNEAL	58.6	59.6	14.6	31.0	173	JUNE 22	7.3
CHOTEAU	57.9	60.3	14.7	29.3	172	JUNE 21	**19.8**
VIDA	**64.4**	60.1	14.2	30.2	173	JUNE 22	9.6
DUCLAIR	61.3	59.7	14.4	30.2	**170**	**JUNE 19**	17.4
EGAN	58.2	59.3	**16.1**	30.1	173	JUNE 22	7.5
LANNING	60.6	60.3	14.9	29.3	**170**	**JUNE 19**	6.6
WB 9879 CLP	58.6	60.6	14.7	29.3	172	JUNE 21	**19.8**
NS presser CLP[1)]	63.7	59.2	14.0	31.3	175	JUNE 24	7.4
AVERAGE	**59.2**	**60.3**	**14.6**	**30.9**	**172**	**JUNE 21**	**10.6**
N=LOC*YEARS	**N=29**	**N=29**	**N=29**	**N=29**	**N=29**	**N=29**	**N=4**

1) three year's data ('16-'18)

Table 2. Grain yield (bu/ac) for selected varieties in advanced spring wheat nursery across the Montana (8 environments), 2015-2018

VARIETY	Kalispell Dryland	Bozeman Dryland	Huntley Dryland	Moccasin Dryland	Conrad Dryland	Havre Dryland	Sidney Dryland	Sidney Irrigated	Overall 8 Environments
SY INGMAR	83.7	60.4	78.1	35.4	58.7	39.2	40.9	76.0	59.0
SY Valda	88.8	66.9	80.8	36.7	64.5	37.8	43.1	**84.0**	62.8
WB GUNNISON	87.7	62.6	73.7	38.8	63.1	34.3	38.8	71.8	58.8
CORBIN	83.9	61.2	78.4	34.4	61.2	38.3	39.2	75.0	58.9
THATCHER	72.8	50.6	59.4	31.8	50.4	30.8	32.8	59.7	48.5
FORTUNA	79.1	53.6	67.7	32.2	56.4	33.3	36.9	63.1	52.8
LCS PRO	93.3	64.4	75.7	36.2	58.5	39.9	42.6	74.9	60.7
REEDER	88.3	62.5	78.5	38.5	63.9	40.1	**48.1**	78.3	62.3
MCNEAL	80.6	56.8	75.4	38.1	57.3	38.8	43.7	78.0	58.6
CHOTEAU	80.2	60.7	78.7	34.6	59.2	34.8	38.8	76.4	57.9
VIDA	**93.6**	71.4	82.7	37.8	64.6	**41.7**	47.6	76.1	**64.4**
DUCLAIR	89.5	63.1	**85.1**	36.9	60.9	35.8	40.0	79.5	61.3
EGAN	89.8	55.9	77.6	34.6	60.1	38.5	38.1	71.2	58.2
LANNING	80.9	64.7	78.0	38.5	64.1	40.4	42.8	75.4	60.6
WB 9879 CLP	80.3	59.3	77.4	37.2	59.3	38.8	40.3	76.5	58.6
NS presser CLP[1)]	77.5	**75.9**	79.4	**41.7**	**70.2**	38.5	47.1	79.4	63.7
AVERAGE	**84.4**	**61.9**	**76.7**	**36.4**	**60.8**	**37.5**	**41.3**	**74.7**	**59.2**
N=LOC*YEARS	**N=3**	**N=4**	**N=3**	**N=4**	**N=4**	**N=4**	**N=3**	**N=4**	**N=29**

1) three year's data ('16-'18)

Table 3. Milling and baking quality for selected varieties in the advanced spring wheat nursery, 2015-2017

VARIETY	WHOLE GRAIN		FLOUR ANALYSIS		MIXOGRAPH			BAKE		
	PROTEIN (%)	HARDNESS (%)	YIELD (%)	PROTEIN (%)	TOLERANCE	TIME (MIN.)	ABSORP. (%)	TIME (MIN.)	ABSORP. (%)	LOAF VOLUME (CC)
SY INGMAR	15.6	76.1	71.4	14.6	4.4	8.3	73.2	16.7	83.3	1218
SY Valda	15.2	72.6	71.3	13.7	2.8	4.7	68.9	10.5	78.6	1094
WB GUNNISON	14.3	78.8	68.1	12.9	5.1	8.1	68.2	14.6	79.2	1152
CORBIN	14.9	68.1	71.1	13.7	2.9	5.3	67.4	13.4	77.4	1074
THATCHER	15.8	75.7	69.5	14.5	3.7	4.3	67.7	8.9	77.3	1225
FORTUNA	14.9	66.8	72.1	13.7	2.8	3.4	66.3	6.3	76.2	1133
LCS PRO	14.8	76.6	72.0	14.0	4.3	5.5	72.2	11.8	82.2	1168
REEDER	15.4	71.6	70.0	14.3	2.7	3.4	67.9	6.1	77.5	1159
MCNEAL	15.2	**88.0**	68.3	13.9	5.0	7.4	69.9	13.4	79.6	1258
CHOTEAU	15.3	67.6	70.6	14.2	2.8	3.7	68.3	7.0	78.1	1171
VIDA	15.1	74.6	**72.2**	13.9	2.6	3.8	67.9	7.1	77.3	1175
DUCLAIR	15.1	67.1	70.2	14.0	4.1	4.9	68.3	8.9	77.9	1225
EGAN	**16.4**	76.2	69.1	**15.2**	**5.5**	**9.5**	**73.5**	**18.7**	**84.3**	**1322**
LANNING	15.3	70.0	70.6	14.3	3.6	4.2	68.7	8.9	79.0	1205
WB 9879 CLP	15.2	63.4	69.3	13.9	2.0	2.1	65.3	2.9	74.4	1046
NS presser CLP[1)]	14.8	72.1	71.5	13.7	3.2	5.8	69.8	10.9	79.9	1150
AVERAGE	**15.2**	**72.8**	**70.5**	**14.0**	**3.6**	**5.3**	**69.0**	**10.4**	**78.9**	**1174.0**
N=LOC*YEARS	**N=9**	**N=9**	**N=9**	**N=9**	**N=9**	**N=9**	**N=9**	**N=9**	**N=9**	**N=9**

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