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MONTANA 2021 WHEAT VARIETIES

HIGHLIGHTS

This report provides the results of the wheat portion of the 2021 Wheat and Barley Variety Survey, conducted by the National Agricultural Statistics Service, Mountain Regional Office. The survey was funded by the Montana Wheat and Barley Committee. Access to this report is available for free or online at www.nass.usda.gov/mt. Thank you to each person who supplied data and made this report possible.

All variety acreage numbers in this publication are based on survey averages. Survey respondents totaled 2,241 with 1,885 usable reports for both wheat and barley. Useable positive spring wheat reports totaled 885. Usable positive reports for winter wheat totaled 613 and Durum wheat reports totaled 163. At the district level, the number of reports for minor varieties is generally limited. Thus, yearly fluctuations in the district variety acreage may be the result of sample variation.

Total acres of all wheat seeded in Montana for 2021 are estimated at 5.15 million acres, down from 5.54 million acres planted in 2020. Montana is ranked fourth in all wheat planted acreage in the United States with 11.0 percent of the 46.7 million acres planted.

Vida is the leading spring wheat variety in Montana for 2021. Vida accounts for 22.6 percent of the 2.60 million acres of spring wheat planted in 2021. Reeder ranks second with 12.2 percent of the spring wheat acreage. Lanning represents 6.5 percent of the spring wheat planted and ranks third. SY Ingmar ranked fourth with 5.9 percent of spring wheat planted. Corbin accounts for 5.6 percent of the spring wheat acres and ranks fifth. These top five varieties account for 52.8 percent of the spring wheat planted in 2021. Montana continues to rank second in spring wheat acreage in the United States, with 22.4 percent of the spring wheat planted in 2021.

Divide is the leading Durum wheat variety in Montana during 2021. Divide accounts for 16.9 percent of the 650,000 acres planted. Alzada ranks second with 16.0 percent of the Durum wheat acres planted. ND Riveland ranks third with 13.4 percent of the Durum wheat acres planted. Joppa represents 12.3 percent of the Durum wheat and ranks fourth. Transcend accounts for 10.7 percent of Durum wheat and ranks fifth.

These top varieties account for 69.3 percent of the Durum wheat acreage in Montana for 2021. Montana continues to rank second in Durum wheat planted acreage in the United States with 43.9 percent of the nation's estimated 1.48 million acres planted in 2021.

Warhorse is the leading winter wheat variety planted in Montana for 2021. Warhorse accounts for 30.2 percent of the 1.90 million acres of winter wheat planted. Yellowstone accounts for 9.5 percent of winter wheat planted and ranks second. Keldin ranks third with 8.9 percent of winter wheat acres planted. Judee ranks fourth and represents 7.2 percent of acres planted. Brawl CL plus ranks fifth with 6.4 percent of acres. These five varieties account for 62.2 percent of the 1.90 million acres planted in Montana for 2021. Montana ranks fifth in winter wheat planted acreage in the United States with 5.6 percent of the 33.68 million acres planted.

SPRING WHEAT

Vida is the leading spring wheat variety planted for 2021. Montana producers planted 22.6 percent of the State's acres to Vida this year. Vida was derived from a cross of Scholar and Reeder in 1998 by the Montana Agricultural Experiment Station and released in 2005. It is a high yielding hard red spring with moderate resistance to leaf and stripe rust. Vida is a semi-dwarf with white glumes and awns, kernels are red ovate with rounded cheeks. Good milling and baking characteristics have made Vida a popular variety each year.

Reeder is the second most common spring wheat variety planted this year with 12.2 percent of the seeded acreage to spring wheat in Montana. Reeder was developed by the North Dakota Agricultural Experiment Station, released in 1999. It is an awned, semi-dwarf, hard red spring wheat. Reeder is resistant to upper Midwest stem and leaf rust. It was developed by crossing a relative of Stoa and germplasm from Brazil. Its stay-green trait allows for a longer head-filling period and in turn higher yield.

Lanning ranks as the third most common spring wheat variety planted for 2021 with 6.5 percent of planted acreage. Lanning was developed by Montana State University and released in 2016. Lanning has a high grain protein. It is a hollow-stemmed wheat with a high grain yield. This variety combines the traits of Glenn and MT0747. This variety also has a stay green trait for continued growth and increased yield.

SY Ingmar is the is the fourth most common spring wheat variety in Montana for 2021 with 5.9 percent of planted acreage. SY Ingmar was released by Syngenta/AgriPro in 2014 and has semi-dwarf height, strong straw strength, high grain protein, medium-maturity, and good milling and baking quality.

Corbin is the fifth most common spring wheat variety in 2021 accounting for 5.6 percent of Montana’s seeded spring wheat. A Hard Red Spring variety with an early maturity, it was developed and released by WestBred, LLC in 2006. The variety provides resistance to stripe rust and has very good Wheat Stem Sawfly tolerance. This variety also has very good yield potential, emergence and protein content. Milling and baking quality is acceptable for the market class being grown in Montana.

Montana Top 5 Spring Wheat Varieties	
Variety	Percent of Acres Planted
Vida	22.6
Reeder	12.2
Lanning	6.5
SY Ingmar	5.9
Corbin	5.6

WINTER WHEAT

Warhorse is the most common winter wheat variety planted on 30.2 percent of Montana’s 2021 total winter wheat acres. Warhorse is a solid-stemmed hard red winter wheat released in 2013 by the Montana Agricultural Experiment Station. Warhorse has medium maturity and has medium short, semi-dwarf height. Warhorse yield is similar to Judee, while test weight and protein are above average. Warhorse is resistant to both stem and stripe rust. Warhorse has acceptable mill and bake qualities.

Yellowstone is the second most common winter wheat variety for 2021. It accounts for 9.5 percent of the state's planted winter wheat acreage. Yellowstone is a hard red winter wheat developed by the Montana Agricultural Experiment Station and became available in 2005. The variety is high yielding with medium test weight, maturity, height, and protein. It has excellent baking and good noodle qualities. Yellowstone is moderately resistant to dwarf smut and stripe rust but is susceptible to stem rust.

Keldin ranks third in winter wheat acres for 2021 and accounts for 8.9 percent of planted winter wheat acreage. Keldin is a medium late, semi-dwarf hard red winter wheat. It has excellent yield and a strong stem. It also has good resistance to disease. It was developed by Pflanzenzucht Oberlimpurg of Germany and licensed to WestBred.

Judee is the fourth most common winter wheat variety planted in Montana. It accounts for 7.2 percent of the total winter wheat acreage in 2021. Judee is a white-glumed, semi-dwarf wheat that performs well in locations where sawfly cutting has occurred. Judee was developed by the Montana Agricultural Extension Station and released to growers in 2011. Judee is susceptible to prevalent races of leaf rust and stem rust, but resistant to stripe rust.

Brawl CL Plus is the fifth most common winter wheat variety planted on 6.4 percent of Montana’s total acres of winter wheat for 2021. Brawl CL Plus is a hard red winter wheat developed by the Colorado Agricultural Experiment Station released in 2011. It is tolerant of the Imazamox herbicide (Beyond), resistant to stripe rust, has high test weight and superior milling and bread baking qualities. It is suited for dryland and irrigated production in the west-central Great Plains.

Montana Top 5 Winter Wheat Varieties	
Variety	Percent of Acres Planted
Warhorse	30.2
Yellowstone	9.5
Keldin	8.9
Judee	7.2
Brawl CL Plus	6.4

DURUM WHEAT

Divide ranks first in Durum wheat acreage in 2021 with 16.9 percent of the 650,000 acres of Durum wheat planted. Released in 2005 by NDSU, Divide has above average height, strong straw strength, medium maturity, and good overall quality.

Alzada is ranked as the second most common Durum variety with 16.0 percent of Montana’s total Durum wheat acres. Alzada was developed by WestBred, LLC in Bozeman, Montana and first released for commercial planting in 2004. The variety has competitive yields along with excellent straw strength and good sawfly tolerance. Alzada has a high test weight, protein content, and demonstrates good scores for semolina color and gluten strength.

ND Riveland ranks third in Durum wheat acreage planted with 13.4 percent of the total Durum wheat planted. Released in 2017 by NDSU, ND Riveland has medium height, good straw strength, medium maturity, and good overall quality.

Joppa is the fourth most popular Durum wheat variety for 2021 and represents 12.3 percent of the Durum wheat planted. Joppa is characterized by above average height, strong straw strength, medium maturity, and good overall quality. It was released in 2013 by NDSU.

Transcend is the fifth most common Durum wheat variety for 2021 with 10.7 percent of acres planted to Durum. Transcend is characterized by high yield, protein concentration, strong straw, and improved fusarium head blight resistance.

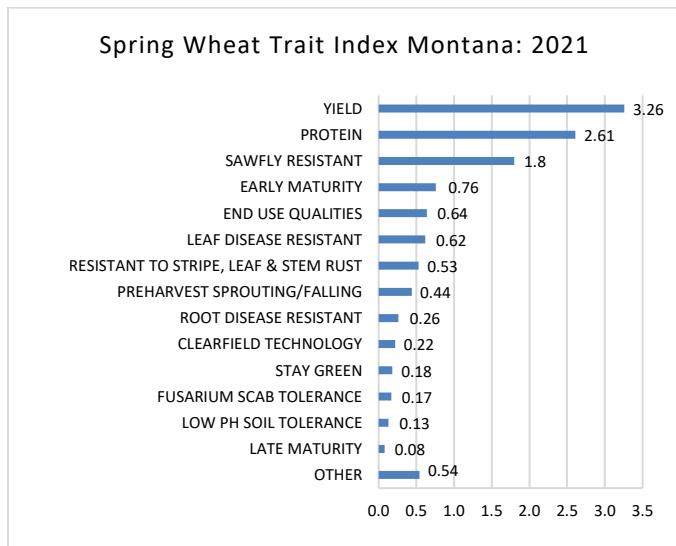
Durum Top 5 Winter Wheat Varieties	
Variety	Percent of Acres Planted
Divide	16.9
Alzada	16.0
ND Riveland	13.4
Joppa	12.3
Transend	10.7

IMPORTANCE OF WHEAT VARIETY TRAITS

Wheat growers were asked to rank traits in order of importance when choosing a wheat variety for 2021 where 5.00 is the highest and 1.00 is the lowest.

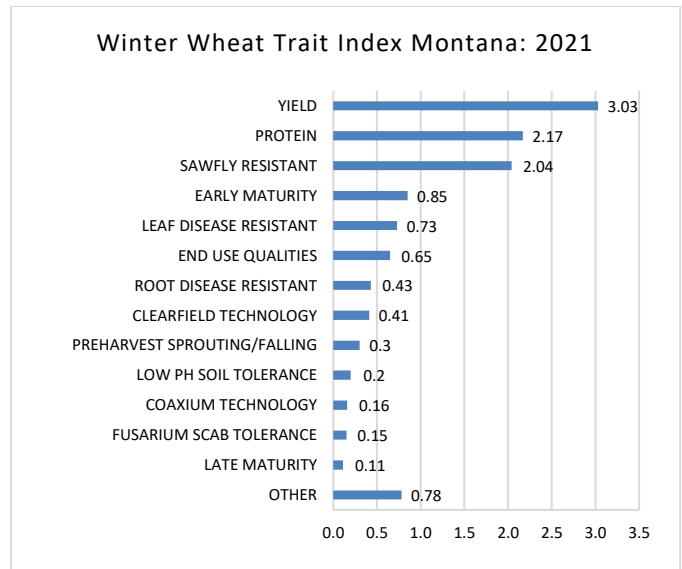
SPRING WHEAT

Yield was the highest ranked trait of importance when choosing a spring wheat variety with an average of 3.26 points out of 5.00. Protein was ranked second with an average of 2.61 points. Sawfly resistance was the third most important trait with an average of 1.80 points. Early maturity was in fourth place with an average of 0.76 points and end use qualities was fifth at 0.64 points. These and all other traits listed on the survey are illustrated on the following chart.



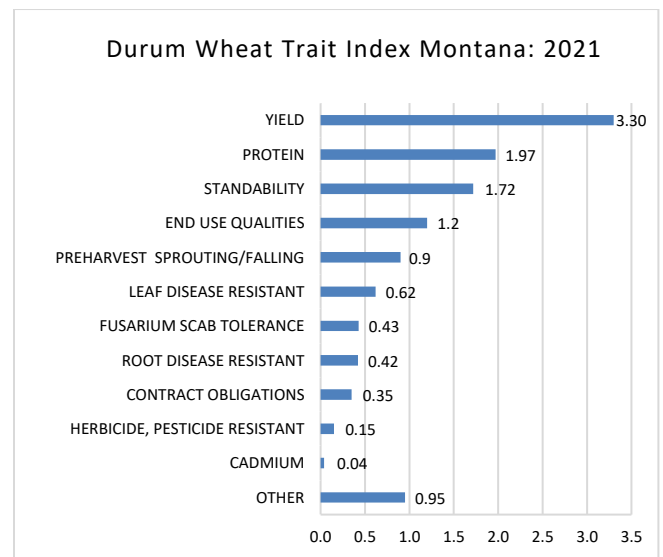
WINTER WHEAT

Yield was also the highest ranked trait of importance for winter wheat with an average of 3.03 points out of 5.00. Protein was second once again with an average of 2.17 points. Sawfly resistance was ranked third at an average 2.04 points. Early maturity and other were ranked fourth and fifth at averages of 0.85 and 0.78 points, respectively.



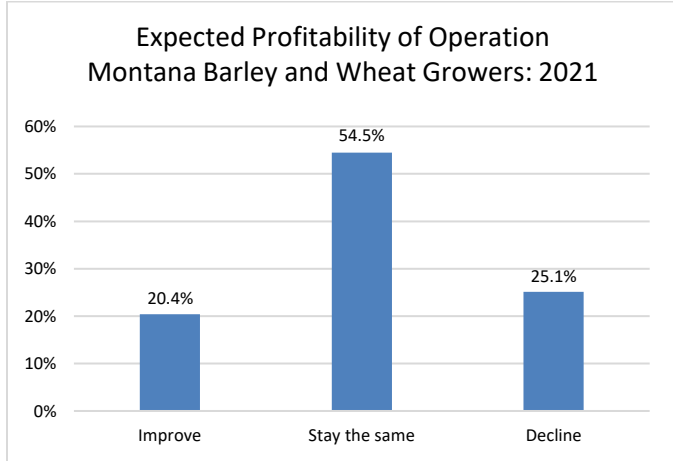
DURUM WHEAT

Yield again was the highest ranked trait of importance for Durum wheat averaging of 3.30 points out of 5.00. Protein was second with an average of 1.97 points. In third place, standability had an average of 1.72 points. End use qualities and other were ranked fourth and fifth at averages of 1.20 and 0.95 points, respectively.



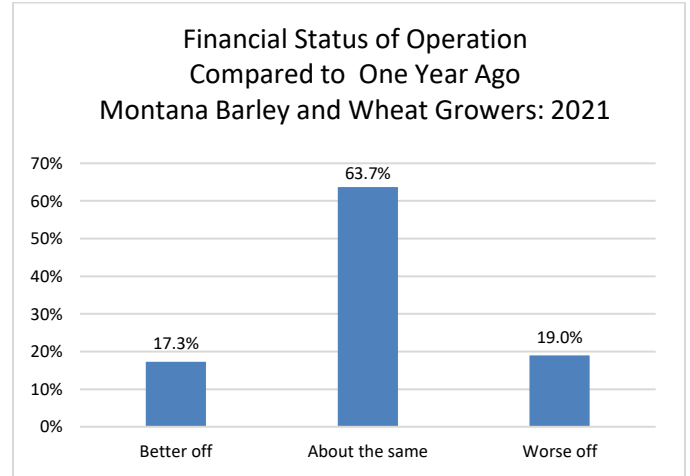
PROFITABILITY OF OPERATION

Growers of both barley and wheat were asked about their expectations concerning the profitability of their operation over the next twelve months. Farmers who reported the profitability of their operation would be better off was 20.4 percent. No change in profitability of their operation was expected by 54.5 percent of famers. Farmers who expected their operation would be worse off stood at 25.1 percent. Some farmers indicated drought and market conditions affected their answers.



FINANCIAL COMPARISON TO ONE YEAR AGO

Growers of both barley and wheat were asked about the financial status of their operation compared to one year ago. Farmers who reported their operation was better off stood at 17.3 percent. Farmers who reported their operation was about the same came to 63.7 percent and those who said their operation was worse off financially stood at 19.0 percent.



Montana's Agricultural Districts



Spring Wheat: Reported Percent Planted by District and Variety, Montana 2021

Variety	District 10 Northwest	District 20 North Central	District 30 Northeast	District 50 Central	District 70 Southwest	District 80 South Central	District 90 Southeast	State Total
	%	%	%	%	%	%	%	%
Vida	--	32.7	15.6	19.8	--	--	--	22.6
Reeder	--	--	25.4	--	--	--	13.1	12.2
Lanning	--	9.2	3.4	8.1	--	7.2	--	6.5
SY Ingmar	--	2.6	9.4	8.7	--	--	--	5.9
Corbin	--	12.6	--	--	--	--	--	5.6
SY Longmire	--	5.4	3.3	--	--	--	--	4.0
SY Soren	--	--	8.2	--	--	--	--	3.8
Duclair	--	7.3	1.0	3.2	--	--	--	3.7
Brennan	--	--	6.4	--	--	--	--	3.0
WB 9668	--	1.4	--	7.1	71.1	13.0	--	2.7
WB Gunnison	--	5.3	--	1.2	--	--	--	2.3
Barlow	--	--	3.0	--	--	--	33.8	2.2
SY Rockford	--	1.9	2.1	6.8	--	--	--	2.1
Mott	--	--	3.0	--	--	--	--	1.5
WB 9879 CLP	--	2.0	--	4.7	--	--	--	1.2
Bolles	--	--	2.4	--	--	--	--	1.2
ONeal	--	2.4	--	--	--	--	--	1.1
SY McCloud	--	--	1.8	--	--	--	--	0.8
Choteau	--	1.3	--	--	--	--	--	0.8
WB 9377	--	1.4	--	--	--	--	--	0.6
McNeal	--	--	0.8	--	--	--	--	0.6
Trigger	--	--	--	--	--	--	8.1	0.4
Conan	--	0.9	--	--	--	--	--	0.4
Fortuna	--	0.8	--	--	--	--	--	0.3
Other, Unknown ¹	100.0	12.8	14.2	40.4	28.9	79.8	45.0	14.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹⁾ Other, Unknown includes Alum, Amidon, Breaker, Dagmar, Egan, Elgin, Glenn, HJ98, Kelby, Len, ND Presser CLP, Rebel, Steeland, SY Rowyn, SY 61, Vantage, Velve, WB 9590, WB 9719, Westbred 936, Other, and Unknown varieties.
Dashes indicate either non or minor amount reported.

Durum Wheat: Reported Percent Planted by District and Variety, Montana 2021

Variety	District 10 Northwest	District 20 North Central	District 30 Northeast	District 50 Central	District 70 Southwest	District 80 South Central	District 90 Southeast	State Total
	%	%	%	%	%	%	%	%
Divide	--	--	19.6	--	--	--	--	16.9
Alzada	--	84.8	2.7	--	--	--	--	16.0
ND Riveland	--	--	16.2	--	--	--	--	13.4
Joppa	--	--	14.7	--	--	--	--	12.3
Transcend	--	--	12.1	--	--	--	--	10.7
Carpio	--	--	3.7	--	--	--	--	3.3
Mountrail	--	--	3.9	--	--	--	--	3.3
Grenora	--	--	--	--	--	--	--	2.7
Tioga	--	--	2.6	--	--	--	--	2.2
Alkaba	--	--	--	--	--	--	--	1.0
Other, Unknown ¹	--	15.2	24.5	--	100.0	100.0	100.0	18.2
Total	--	100.0	100.0	--	100.0	100.0	100.0	100.0

¹⁾ Other, Unknown includes AC Strongfield, Dilse, Dressler, Grano, Kyle, Luster, Renville, Other, and Unknown varieties.
Dashes indicate either non or minor amount reported.

Winter Wheat: Reported Percent Planted by District and Variety, Montana 2021

Variety	District 10 Northwest	District 20 North Central	District 30 Northeast	District 50 Central	District 70 Southwest	District 80 South Central	District 90 Southeast	State Total
	%	%	%	%	%	%	%	%
Warhorse	--	40.4	--	11.9	--	4.1	--	30.2
Yellowstone	--	8.9	30.8	11.6	--	1.1	10.9	9.5
Keldin	17.3	11.6	--	3.7	--	3.0	--	8.9
Judee	--	7.8	--	6.6	--	--	--	7.2
Brawl CL Plus	--	2.7	--	17.5	--	16.5	--	6.4
Monument	--	3.1	--	16.2	--	--	--	5.3
Battle AX	--	2.1	--	4.6	--	--	--	2.7
FourOsix	--	1.5	--	1.9	--	--	--	2.6
SY Clearstone 2 CL	--	1.5	--	4.0	14.9	4.6	--	2.3
Lorna	--	3.1	--	--	--	--	--	2.2
SY Wolf	--	1.2	--	--	--	--	--	1.6
Northern	--	1.3	10.6	2.0	--	--	--	1.5
Incline	--	--	--	--	--	--	--	1.4
Decade	--	0.2	18.1	2.6	--	--	--	1.3
CDC Falcon	--	--	--	--	--	--	--	1.1
Standclear CLP	--	0.5	--	--	--	6.7	--	1.0
Bobcat	--	1.4	--	--	--	--	--	1.0
LCS Fusion AX	--	1.3	--	--	--	--	--	0.9
Willow Creek	--	0.2	3.1	1.7	--	1.1	8.1	0.8
LCS Jet	19.2	0.5	--	--	9.5	--	--	0.7
Rampart	--	0.9	--	--	--	--	--	0.6
WB 4792	--	0.5	--	0.4	--	--	--	0.4
Other, Unknown ¹	63.5	9.3	37.4	15.3	75.6	62.9	81.0	10.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹⁾ Other, Unknown includes Genou, Jagalene, Jerry, Morgan, Peregrine, Ray, Seward, WB 4269, WB Matlock, Other, and Unknown varieties. Dashes indicate either non or minor amount reported.