



MONTANA 2024 WHEAT VARIETIES

HIGHLIGHTS

This report provides the results of the wheat portion of the 2024 Wheat and Barley Variety Survey, conducted by the National Agricultural Statistics Service, Mountain Regional Office, USDA. 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 1,956, of which 1,694 were usable reports for both wheat and barley. Usable, positive spring wheat reports totaled 689, usable, positive reports for winter wheat totaled 623, and Durum wheat reports totaled 179. At the district level, the number of reports for minor varieties is generally limited. Yearly fluctuations in the district variety acreage may be the result of sample variation.

Total acreage of all wheat seeded in Montana for 2024 is estimated at 5.28 million acres, up from 5.26 million acres planted in 2023. Montana is ranked fourth in all wheat planted acreage in the United States, with 11.4 percent of the 46.27 million acres planted.

Dagmar is the leading spring wheat variety in Montana for 2024, accounting for 22.0 percent of the 2.45 million acres of spring wheat planted in 2024. Vida ranks second with 14.3 percent of the spring wheat acreage. SY Longmire represents 8.9 percent of the spring wheat planted, and ranks third. Reeder ranked fourth, with just under 7.4 percent of spring wheat planted. WB Gunnison accounts for 4.1 percent of the spring wheat acres and ranks fifth. These top five varieties account for 56.7 percent of the spring wheat planted in 2024. Montana continues to rank second in spring wheat acreage in the United States, with 22.9 percent of the spring wheat planted in 2024.

Of the top five published varieties, Bobcat is the leading winter wheat variety planted in Montana for 2024, accounting for 21.5 percent of the 1.95 million winter wheat acres planted. Warhorse ranks second with 13.8 percent of acres planted. Keldin ranks third, with 9.2 percent of the acreage. Brawl CL Plus ranks fourth, holding 6.2 percent of winter wheat acres. Yellowstone ranks fifth with 5.1 percent of the acreage in Montana. These five varieties account for 55.7 percent of all winter wheat acres in Montana. The state ranks fifth in winter wheat planted acreage in the

United States with 5.8 percent of the 33.48 million acres planted. Alzada is the leading Durum wheat variety in Montana during 2024, accounting for 24.1 percent of the 880,000 acres planted. ND Riveland ranks second with 20.9 percent of the Durum wheat acres planted. Divide ranks third with 12.6 percent of the Durum wheat acres planted. AC Transend represents 7.9 percent of the Durum wheat and ranks fourth. Joppa accounts 4.7 percent of Durum wheat and ranks fifth. These top varieties account for 70.2 percent of the Durum wheat acreage in Montana for 2024. Montana continues to rank second in Durum wheat planted acreage in the United States with 44.2 percent of the Nation's estimated 2.09 million acres planted in 2024.

SPRING WHEAT

Dagmar is the leading spring wheat variety planted in 2024. Montana producers seeded 22.0 percent of the State's acres to Dagmar this year. Dagmar is a solid stemmed hard red spring wheat, and shows strong resistance to wheat stem sawfly. It has excellent dryland yields, as well as high gluten strength.

Vida is the second most common spring wheat variety planted this year, representing 14.3 percent of the acreage seeded in Montana. Released in 2005, Vida was derived from a cross of Scholar and Reeder in 1998 by the Montana Agricultural Experiment Station. It is a high yielding hard red spring wheat, 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.

SY Longmire ranks as the third most common spring wheat variety planted for 2024, with 8.9 percent of planted acreage. SY Longmire is a hard red spring wheat with high yield and good protein potential. It is sawfly tolerant with a solid stem, medium maturity, and medium to short plant height. It also shows good resistance to stem and leaf rust. It is especially adapted to North Dakota, Montana, and northern Minnesota.

Reeder is the fourth most common spring wheat variety planted this year, covering almost 7.4 percent of the seeded acreage. Reeder was developed by the North Dakota Agricultural Experiment Station, and was 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.

WB Gunnison is the fifth most common spring wheat variety in 2024, accounting for 4.1 percent of Montana’s seeded spring wheat. WB Gunnison has excellent yields, good standability, and excellent tolerance to wheat stem sawfly. It has good protein content, and good milling and baking quality.

Montana Top 5 Spring Wheat Varieties	
Variety	Percent of Acres Planted
Dagmar	22.0
Vida	14.3
SY Longmire	8.9
Reeder	7.4
WB Gunnison	4.1

WINTER WHEAT

Bobcat is the most common winter wheat variety for 2024, accounting 21.5 percent of the state’s planted winter wheat acreage. Bobcat was developed by the Montana Agricultural Experiment Station and released in 2019. Bobcat is a hard red winter wheat with a solid stem and improved yield potential. Bobcat is marked by medium to late maturity, and is an awned, white-glumed, and semi-dwarf variety. Bobcat was the top performing line where sawfly cutting has occurred. It has above average test weight and average protein. It is resistant to prevalent races of stripe and stem rust, but susceptible to leaf rust. It is also winter hardy.

Warhorse ranked as the second most popular winter wheat variety, planted on 13.8 percent of Montana’s 2024 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.

Keldin ranks third in winter wheat acres for 2024 and accounts for 9.2 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 Oberlumpurg of Germany and licensed to WestBred, LLC.

Brawl CL Plus is the fourth most common winter wheat variety planted in Montana, and represents 6.2 percent of planted acres. It is medium-tall, has excellent straw strength, early maturity, and high yields. It also has good drought tolerance.

Yellowstone ranks fifth in winter wheat acres, representing 5.1 percent of planted acres. Yellowstone was released in 2005, and developed by the Montana Agricultural Experiment Station. Yellowstone is marked by high yields, medium test weight, height, maturity, and grain protein. It

has good milling, and excellent baking qualities. It shows resistance to stripe rust, but is susceptible to stem rust. It is also winter hardy.

Montana Top 5 Winter Wheat Varieties	
Variety	Percent of Acres Planted
Bobcat	21.5
Warhorse	13.4
Keldin	9.2
Brawl CL Plus	6.2
Yellowstone	5.1

DURUM WHEAT

Alzada is ranked as the most common Durum variety, representing 24.1 percent of Montana’s total Durum wheat acreage planted. Alzada was developed by WestBred, LLC in Bozeman, Montana, and was 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 as the second most popular variety for 2024, with 20.9 percent of the total Durum wheat planted acreage. Released in 2017 by NDSU, ND Riveland has medium height, good straw strength, medium maturity, and good overall quality.

Divide is the third most common wheat variety in 2024, representing 12.6 percent of Durum wheat acreage planted. Released in 2005 by NDSU, Divide has above average height, strong straw strength, medium maturity, and good overall quality.

AC Transcend is the fourth most popular Durum wheat variety for 2024, and represents 7.9 percent of the Durum wheat acreage planted. Transcend is characterized by high yield, protein concentration, strong straw strength, and improved Fusarium head blight resistance.

Joppa is the fifth most popular Durum wheat variety for 2024, representing 4.7 percent of the Durum wheat acreage. Joppa is characterized by above average height, strong straw strength, medium maturity, and good overall quality. It was released in 2013 by NDSU.

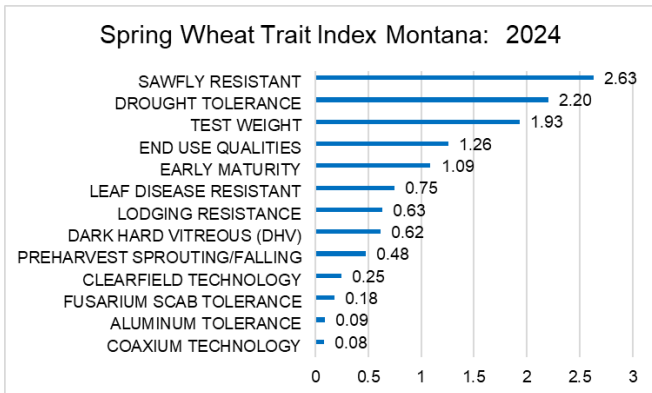
Montana Top 5 Durum Wheat Varieties	
Variety	Percent of Acres Planted
Alzada	24.1
ND Riveland	20.9
Divide	12.6
AC Transcend	7.9
Joppa	4.7

IMPORTANCE OF WHEAT VARIETY TRAITS

Wheat growers were asked to rank traits in order of importance when choosing a wheat variety for 2024, where 5.00 is the highest and 1.00 is the lowest.

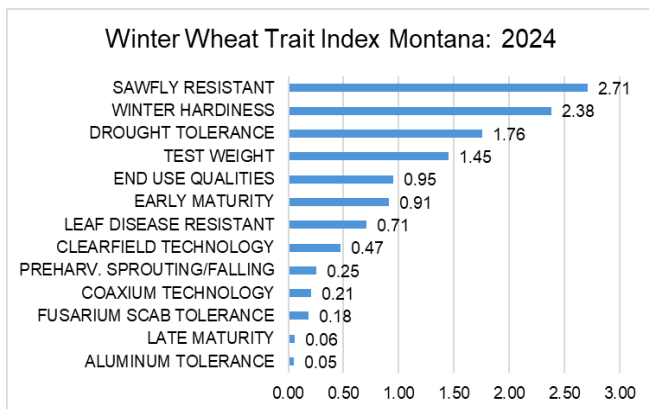
SPRING WHEAT

Sawfly resistance was the highest ranked trait of importance amongst producers when choosing a spring wheat variety, garnering an average of 2.63 points out of 5.00. Drought tolerance was second, with an average of 2.20 points. Test weight was the third most important trait, averaging 1.93 points. End use qualities was in fourth place with an average of 1.26 points, and early maturity was fifth at 1.09 points. These, and all other traits listed on the survey, are illustrated on the following chart.



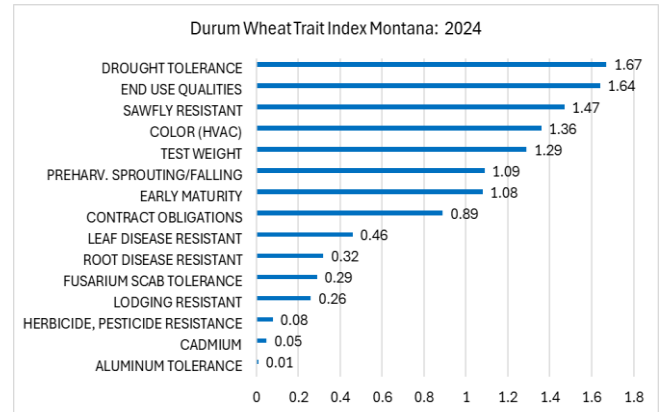
WINTER WHEAT

Sawfly resistance was again the highest ranked trait of importance for winter wheat, with an average of 2.71 points out of 5.00. Winter hardiness ranked second, with an average of 2.38 points. Drought tolerance was ranked third at an average 1.76 points. Test weight ranked fourth, garnering an average of 1.45 points. End use qualities was ranked fifth at an average of 0.95 points. These, and all other traits listed on the survey, are illustrated on the following chart.



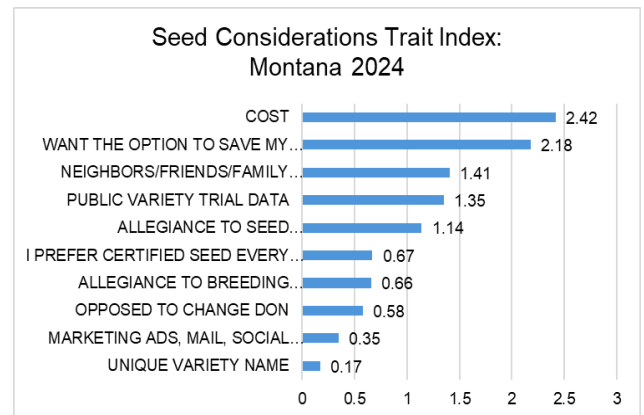
DURUM WHEAT

When selecting seed, drought tolerance was the highest ranked trait of importance for Durum wheat producers in 2024, averaging 1.67 points out of 5.00. End use qualities was a close second, with an average of 1.64 points. In third place, sawfly resistance had an average of 1.47 points. Color (HVAC) ranked fourth, with an average of 1.36 points. Test weight garnered 1.29 points, and ranked fifth for producers. These, and all other traits listed on the survey, are illustrated on the following chart.



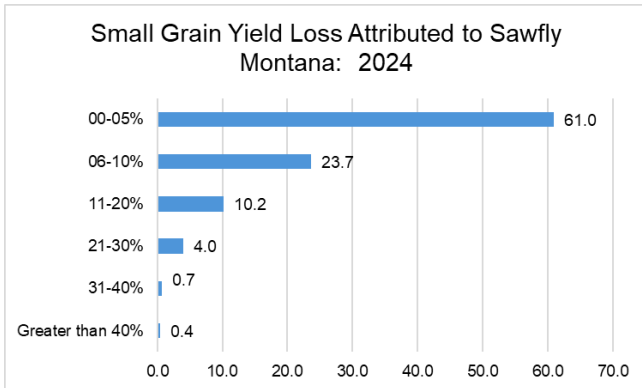
SEED CONSIDERATIONS

Growers of both barley and wheat were asked about the factors they consider when purchasing and planning for seed. Growers ranked these factors in order of importance, where 5.00 is the highest and 1.00 is the lowest. Cost was rated highest, with 2.42 points out of 5.00. This was followed by wanting the option to save seed, at 2.18 points. The influence of neighbors, friends, or family was rated third, at 1.41 points. Public variety trial data was rated fourth, with 1.35 points. Allegiance to breeding program or variety owner was rated fifth at 1.14 points. These, and all other seed considerations listed on the survey, are illustrated on the following chart.



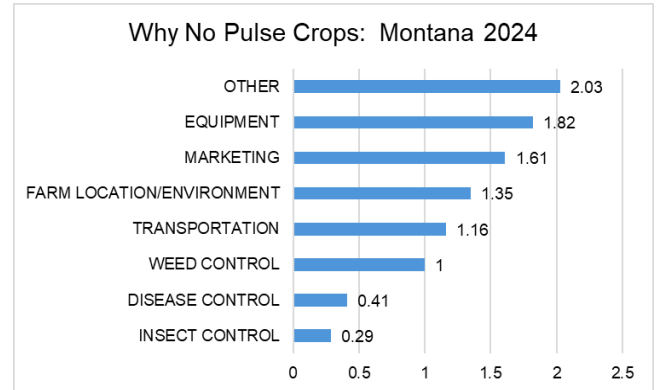
YEARLY ANTICIPATED SMALL GRAIN YIELD LOSS ATTRIBUTED TO SAWFLY

Growers were also asked about their yearly anticipated small grain yield loss that is attributed to sawfly. Sixty-one percent of growers reported that 0-5% of small grain yield is lost to sawfly. This was followed by 23.7 percent of growers who reported that 6-10 percent of small grain yield is lost to sawfly. Growers reporting that 11-20 percent of yield is lost to sawfly were 10.2 percent of the sample. Loss of 31-40 percent was reported by 0.7 percent of growers, and loss of 40 percent or higher was reported by 0.4 percent of growers. Percentages of yearly anticipated grain yield loss attributed to sawfly are illustrated on the graph below.



REASONS FOR NOT GROWING PULSE CROPS

Lastly, farmers were asked if they raise pulse crops. If growers answered no, they were asked to rank the top five reasons why they are not growing pulse crops, where 5.00 is the highest and 1.00 is the lowest. Other was in first place with 2.03 out of 5.0 points. Equipment was ranked second with 1.82 points. Marketing was ranked third, with an average of 1.61 points. Farm location or environment, and transportation were ranked fourth and fifth, at 1.35 and 1.16 points, respectively. These, and all other reasons listed on the survey, as well as their rankings, are illustrated in the chart below.



Montana's Agricultural Districts



Spring Wheat: Reported Percent Planted by District and Variety – Montana: 2024

Variety ¹	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
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Dagmar	--	34.0	10.8	28.6	--	--	--	22.0
Vida.....	--	18.9	8.2	18.3	--	--	23.6	14.3
SY Longmire	--	6.2	13.2	--	--	--	--	8.9
Reeder	--	--	16.4	--	--	--	--	7.4
WB Gunnison	--	8.7	--	--	--	--	--	4.1
SY Ingmar	--	3.8	4.0	8.8	--	--	--	3.9
SY Soren	--	--	7.0	--	--	--	--	3.3
Duclair.....	--	4.7	--	--	--	--	--	3.1
AP Smith	--	--	5.8	--	--	--	--	2.5
Lanning	--	1.2	3.6	--	--	--	--	2.2
Corbin	--	3.4	--	--	--	--	--	1.6
Brennan	--	--	3.5	--	--	--	--	1.5
WB 9668	40.2	0.6	--	3.0	69.5	--	--	1.5
Choteau	--	2.6	--	--	--	--	--	1.5
SY McCloud	--	--	3.1	--	--	--	--	1.4
McNeal.....	--	--	1.7	--	--	--	--	1.3
Barlow	--	--	2.0	--	--	--	--	1.1
WB 9879	--	1.1	--	--	--	--	--	0.8
Rocker.....	--	1.0	--	--	--	10.7	--	0.7
Mott.....	--	--	1.6	--	--	--	--	0.7
Trigger.....	--	--	--	--	--	--	--	0.7
Fortuna.....	--	1.2	--	--	--	--	--	0.6
WB 9719	--	--	0.4	--	--	--	--	0.5
AP Gunsmoke CL2	--	--	--	--	--	--	--	0.5
Bolles	--	--	0.7	--	--	--	--	0.4
AAC Concord	--	--	--	--	--	--	--	0.2
WB 9724 CLP	--	0.1	--	--	5.9	--	--	0.2
LCS Hammer AX	--	--	--	2.4	--	--	--	0.2
Amidon.....	--	--	0.4	--	--	--	--	0.2
WB 9929	--	--	--	--	--	--	--	0.1
Other, Unknown ²	59.8	12.5	17.6	38.9	24.6	89.3	76.4	12.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(--) No data, minor amount reported, or withheld to avoid disclosing data for individual operations.

¹) AAC=Agriculture and Agri-foods Canada, AP=AgriPro, LCS=Limagrain Cereal Seeds, MT=Montana State University, ND=North Dakota State University Research Foundation, SY=Syngenta, and WB=WestBred.

²) Other, Unknown includes Alum, Ambush, AP Murdock, Conan, Egan, Elgin, Glenn, Hale, Kelby, Linkert, NP Presser CLP, Oneal, Rebel, Spitfire, Steelend, SY Valda, WB 9377, WB 9590, Other, and Unknown varieties.

Winter Wheat: Reported Percent Planted by District and Variety – Montana: 2024

Variety ¹	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
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Bobcat.....	--	30.9	--	13.6	--	--	--	21.5
Warhorse	--	18.1	--	12.1	--	--	--	13.8
Keldin.....	41.6	11.3	--	8.7	10.5	4.2	--	9.2
Brawl CL Plus.....	--	2.5	--	18.5	--	9.8	--	6.2
Yellowstone.....	--	4.9	11.9	7.3	--	--	19.4	5.0
Battle AX.....	--	3.0	--	5.5	--	10.3	--	4.4
Fortify SF.....	--	--	--	--	--	--	--	3.7
SY Monument	--	2.8	--	7.1	--	--	--	3.2
AP Solid.....	--	3.0	--	--	--	--	--	2.3
Standclear CLP.....	--	0.9	--	6.6	--	4.1	--	2.3
Loma.....	--	2.0	--	--	--	--	--	1.3
Fourosix.....	--	0.4	--	--	--	--	7.1	1.2
CDC Falcon.....	--	1.4	--	--	--	--	--	1.1
Decade.....	--	0.4	16.8	--	--	--	--	1.0
WB 4483.....	--	1.5	--	--	--	--	--	0.9
Judee.....	--	1.1	--	--	--	--	--	0.9
Willow Creek.....	--	0.3	--	0.6	--	--	6.6	0.9
Flathead.....	--	--	--	--	--	--	--	0.8
Ramsey.....	--	--	--	--	--	2.1	--	0.7
Ray.....	--	0.4	3.2	0.9	--	--	--	0.6
SY Clearstone 2CL.....	--	--	--	--	--	1.4	--	0.5
Morgan.....	--	0.7	--	--	--	--	--	0.5
SY 517 CL2.....	--	--	--	--	--	2.9	--	0.5
MT Warcat.....	--	0.6	--	0.7	--	--	--	0.5
Fortress.....	--	--	--	1.1	--	--	--	0.5
AAC Wildfire.....	--	--	--	--	--	--	--	0.3
Milestone.....	--	--	--	--	--	--	--	0.3
WB 7427.....	--	--	--	--	--	--	--	0.3
WB 4619.....	--	0.1	--	--	--	--	--	0.1
Other, Unknown ²	58.4	13.7	68.1	17.3	89.5	65.2	66.9	15.5
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(--) No data, minor amount reported; withheld to avoid disclosing data for individual operations.

¹ AAC=Agri-foods Canada, AP=AgriPro, CDC=Crop Development Centre, MT=Montana State University, ND=North Dakota State University Research Foundation, SY=Syngenta, and WB=WestBred.

² Other, Unknown includes AC Broadview, Alliance, AP18AX, CP 7017 AX, Genou, Jagalene, LCS Jet, Lyman, Northern, Peregrine, Scorpio, SY Wolf, SY Wolverine, WB 4792, and WB Matlock, Other, and Unknown varieties

Durum Wheat: Reported Percent Planted by District and Variety – Montana: 2024

Variety ¹	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
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alzada.....	--	94.3	--	32.8	--	--	--	24.1
ND Riveland.....	--	--	28.2	--	--	--	--	20.9
Divide.....	--	--	17.3	--	--	--	--	12.6
AC Transcend.....	--	--	10.8	--	--	--	--	7.9
Joppa.....	--	--	6.2	--	--	--	--	4.7
Brigade.....	--	--	4.5	--	--	--	--	3.2
Carpio.....	--	--	--	--	--	--	--	1.9
CDC Defy.....	--	--	2.6	--	--	--	--	1.9
AC Strongfield.....	--	--	1.9	--	--	--	--	1.4
Mountrail.....	--	--	2.0	--	--	--	--	1.4
Other, Unknown ²	--	5.7	26.5	67.2	--	--	--	20.0
Total.....	--	100.0	100.0	100.0	--	--	--	100.0

(--) No data, minor amount reported, or withheld to avoid disclosing data for individual operations.

¹ AC=Agri-foods Canada, CDC=Crop Development Centre, ND=North Dakota State University Research Foundation.

² Other, Unknown includes Alkabo, Grano, Kyle, Luster, MT Blackbeard, MT Raska, Tioga, Other, and Unknown varieties.