



MONTANA 2022 WHEAT VARIETIES

HIGHLIGHTS

This report provides the results of the wheat portion of the 2022 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 2,044 with 1,821 usable reports for both wheat and barley. Usable positive spring wheat reports totaled 777. Usable positive reports for winter wheat totaled 605 and Durum wheat reports totaled 176. 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 2022 are estimated at 5.59 million acres, up from 5.52 million acres planted in 2021. Montana is ranked third in all wheat planted acreage in the United States with 11.9 percent of the 47.09 million acres planted.

Vida is once again the leading spring wheat variety in Montana for 2022. Vida accounts for 21.8 percent of the 2.75 million acres of spring wheat planted in 2022. SY Longmire ranks second with 8.6 percent of the spring wheat acreage. Brennan represents 8.4 percent of the spring wheat planted and ranks third. Reeder ranked fourth with 7.2 percent of spring wheat planted. Corbin accounts for 6.7 percent of the spring wheat acres and once again ranks fifth. These top five varieties account for 52.7 percent of the spring wheat planted in 2022. Montana continues to rank second in spring wheat acreage in the United States, with 24.8 percent of the spring wheat planted in 2022.

Warhorse is once again the leading winter wheat variety planted in Montana for 2022. Warhorse accounts for 28.1 percent of the 2.05 million acres of winter wheat planted. Keldin accounts for 12.9 percent of winter wheat planted and ranks second. Bobcat ranks third with 10.0 percent of winter wheat acres planted. Yellowstone ranks fourth and represents 5.9 percent of acres planted.

Battle AX ranks fifth with 4.7 percent of acres. These five varieties account for 61.6 percent of the 2.05 million acres planted in Montana for 2022. Montana ranks fourth in winter wheat planted acreage in the United States with 6.0 percent of the 34.01 million acres planted.

Alzada is the leading Durum wheat variety in Montana during 2022. Alzada accounts for 20.4 percent of the 790,000 acres planted. ND Riveland ranks second with 12.6 percent of the Durum wheat acres planted. Divide ranks third with 11.8 percent of the Durum wheat acres planted. Transend represents 10.4 percent of the Durum wheat and ranks fourth. Joppa accounts for 8.7 percent of Durum wheat and ranks fifth. These top varieties account for 63.9 percent of the Durum wheat acreage in Montana for 2022. Montana continues to rank second in Durum wheat planted acreage in the United States with 40.0 percent of the nation's estimated 1.98 million acres planted in 2022.

SPRING WHEAT

For the second year, **Vida** is the leading spring wheat variety planted for 2022. Montana producers planted 21.8 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.

SY Longmire is the second most common spring wheat variety planted this year with 8.6 percent of the seeded acreage to spring wheat in Montana. 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.

Brennan ranks as the third most common spring wheat variety planted for 2022 with 8.4 percent of planted acreage. Brennan is a hollow stem, semi-dwarf hard red spring wheat variety. It has high yield potential, good scab tolerance, early maturity, high test weight, medium-high protein, and strong straw strength. It is adapted well to the northern plains.

Reeder is the fourth most common spring wheat variety planted this year with 7.2 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.

Corbin is once again the fifth most common spring wheat variety in 2022 accounting for 6.7 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	21.8
SY Longmire	8.6
Brennan	8.4
Reeder	7.2
Corbin	6.7

WINTER WHEAT

Warhorse, for the second year in a row, is the most common winter wheat variety, planted on 28.1 percent of Montana’s 2022 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 second in winter wheat acres for 2022 and accounts for 12.9 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.

Bobcat is the third most common winter wheat variety for 2022. It accounts for 10.0 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.

Yellowstone is the fourth most common winter wheat variety planted in Montana. It accounts for 5.9 percent of the total winter wheat acreage in 2022. 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.

Battle AX is the fifth most common winter wheat variety planted on 4.7 percent of Montana’s total acres of winter wheat for 2022. Battle AX is a hard red variety released out of Colorado Wheat Research. It is open stemmed and has good yields and good grain protein. It exhibits medium early maturity with good milling and baking qualities. It can be planted on dryland and irrigated acres, but is susceptible to wheat stem and sawfly damage.

Montana Top 5 Winter Wheat Varieties	
Variety	Percent of Acres Planted
Warhorse	28.1
Keldin	12.9
Bobcat	10.0
Yellowstone	5.9
Battle AX	4.7

DURUM WHEAT

Alzada is ranked as the most common Durum variety with 20.4 percent of Montana’s total Durum wheat acres planted. 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 second in Durum wheat acreage planted with 12.6 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.

Divide is the third most common wheat variety in 2022 with 11.8 percent of Durum wheat acres planted. Released in 2005 by NDSU, Divide has above average height, strong straw strength, medium maturity, and good overall quality.

Transcend is the fourth most common Durum wheat variety for 2022 with 10.4 percent of acres planted. Transcend is characterized by high yield, protein concentration, strong straw, and improved fusarium head blight resistance.

Joppa is the fifth most popular Durum wheat variety for 2022 and represents 8.7 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.

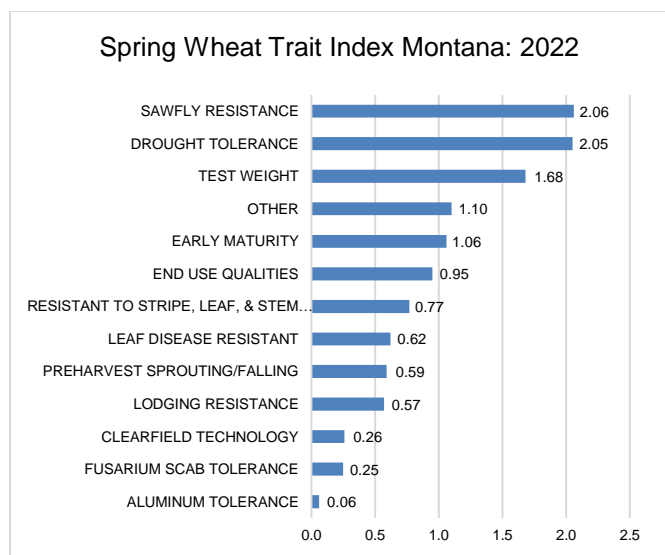
Montana Top 5 Durum Wheat Varieties	
Variety	Percent of Acres Planted
Alzada	20.4
ND Riveland	12.6
Divide	11.8
Transend	10.4
Joppa	8.7

IMPORTANCE OF WHEAT VARIETY TRAITS

Wheat growers were asked to rank traits in order of importance when choosing a wheat variety for 2022 where 5.00 is the highest and 1.00 is the lowest.

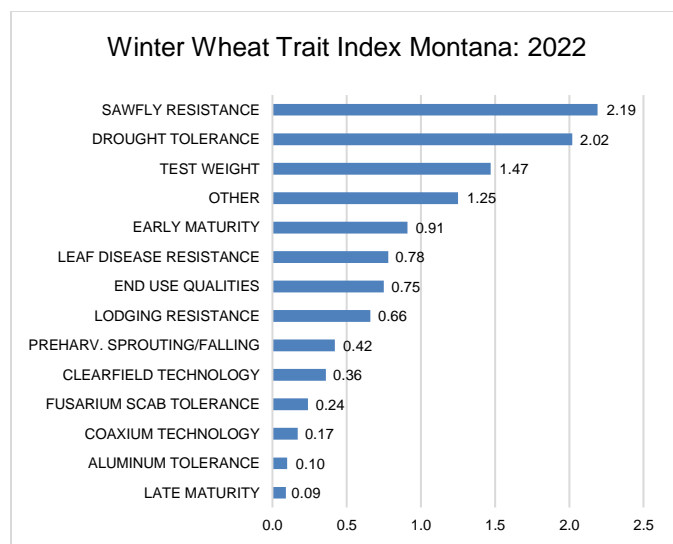
SPRING WHEAT

Sawfly resistance was the highest ranked trait of importance when choosing a spring wheat variety with an average of 2.06 points out of 5.00. Drought tolerance was a close runner up with an average of 2.05 points. Test weight was the third most important trait with an average of 1.68 points. Other was in fourth place with an average of 1.1 points and early maturity was fifth at 1.06 points. These and all other traits listed on the survey are illustrated on the following chart.



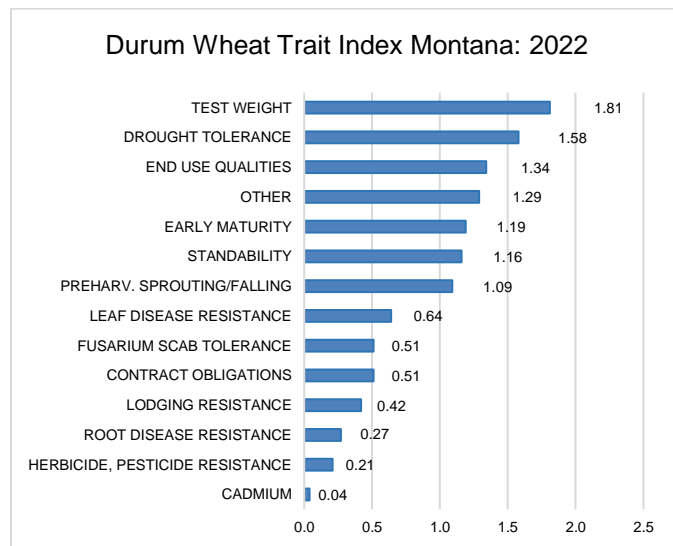
WINTER WHEAT

Sawfly resistance was the highest ranked trait of importance for winter wheat with an average of 2.19 points out of 5.00. Drought tolerance ranked second with an average of 2.02 points. Test weight was ranked third at an average of 1.47 points. Other and early maturity were ranked fourth and fifth at averages of 1.25 and 0.91 points, respectively.



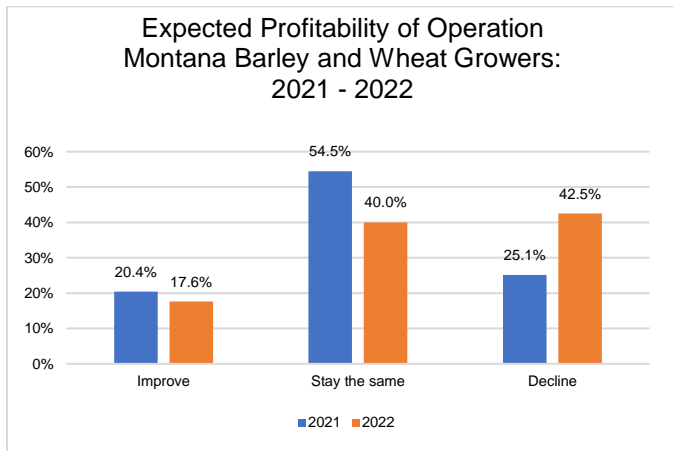
DURUM WHEAT

Test weight was the highest ranked trait of importance for Durum wheat averaging 1.81 points out of 5.00. Drought tolerance was second with an average of 1.58 points. In third place, end use qualities had an average of 1.34 points. Other and early maturity were ranked fourth and fifth at averages of 1.29 and 1.19 points, respectively.



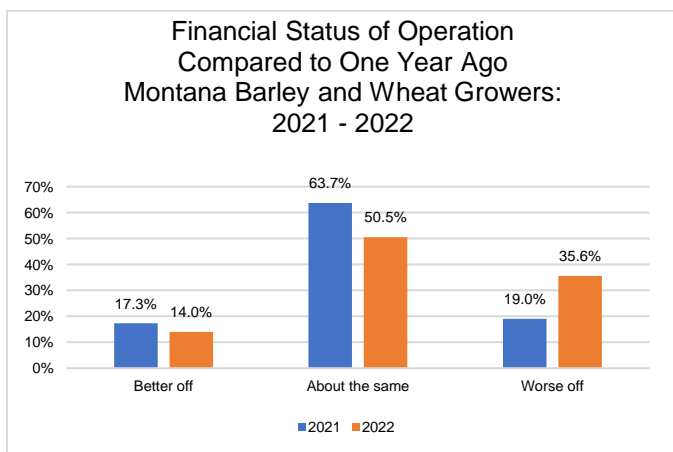
PROFITABILITY OF OPERATION

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 17.6 percent. This compares to 20.4 percent last year. No change in profitability of their operation was expected by 40.0 percent of farmers, compared to 54.5 percent last year. Farmers who expected their operation would decline stood at 42.5 percent. Last year farmers who expected their profitability would decline stood at 25.1 percent. Some farmers indicated drought, pests, and market conditions affected their answers.



FINANCIAL COMPARISON TO ONE YEAR AGO

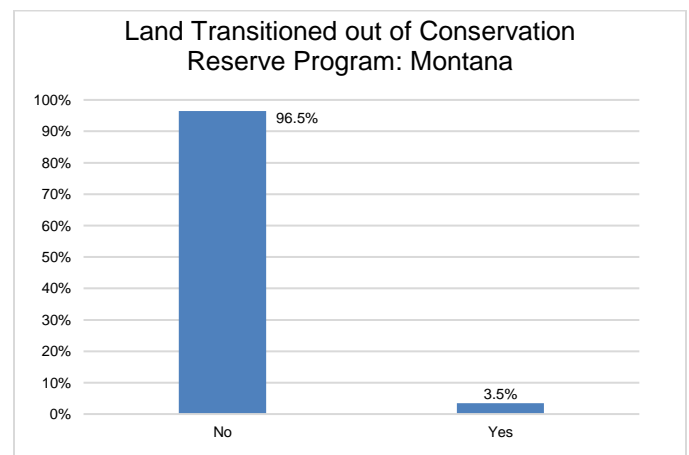
Growers of both barley and wheat were asked about the financial status of their operation compared to the previous year. Farmers who reported their operation was better off stood at 14.0 percent, compared to 17.3 percent last year. Farmers who reported their operation was about the same came to 50.5 percent, compared to 63.7 percent last year. Those who said their operation was worse off financially stood at 35.6 percent. Last year, 19.0 percent said their operation was worse off financially than in the previous year.



LAND TRANSITIONED OUT OF THE CONSERVATION RESERVE PROGRAM TO CERTIFIED ORGANIC PRODUCTION

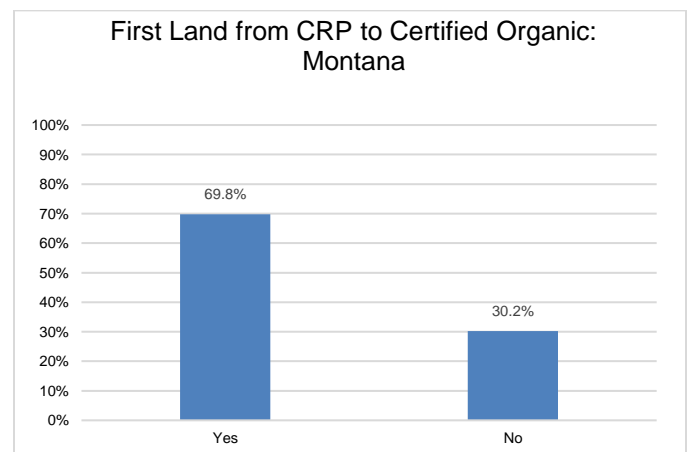
Farmers were asked if they had transitioned land coming out of the Conservation Reserve Program into certified organic production at any time. Farmers answering yes to transitioning land out of CRP to certified organic stood at 3.5 percent. The remainder, 96.5 percent, had not transitioned any land to certified organic production.

Farmers who answered yes to transitioning acres from the Conservation Reserve Program to certified organic were then asked to report the number of acres they had transitioned. The total number of acres transitioned to organic among wheat and barley growers in Montana is estimated to be about 72,000 acres. This is only an estimate of land transitioned among wheat and barley growers in Montana, and is not representative of all farmers and ranchers in Montana.



FORMER CONSERVATION RESERVE PROGRAM LAND TO ORGANIC THE FIRST LAND THAT WAS CERTIFIED

Farmers who transitioned land out of CRP to certified organic were asked if the land transferred was the first land that was certified. Farmers who answered yes stood at 69.8 percent. Farmers who answered no stood at 30.2 percent.



Montana's Agricultural Districts



Spring Wheat: Reported Percent Planted by District and Variety, Montana 2022

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	--	30.3	16.1	22.8	--	--	5.7	21.8
SY Longmire	--	6.9	10.0	--	--	--	--	8.6
Brennan	--	--	16.3	--	--	--	--	8.4
Reeder	--	--	13.6	--	--	--	7.1	7.2
Corbin	--	16.7	--	--	--	--	--	6.7
Lanning	--	10.3	3.6	6.0	--	--	--	6.2
SY Ingmar	--	4.2	3.7	13.6	--	--	--	4.2
Barlow	--	--	6.0	--	--	--	21.1	3.6
SY Soren	--	--	6.4	--	--	--	--	3.3
SY McCloud	--	--	4.9	--	--	--	--	2.6
WB Gunnison	--	5.2	--	2.3	--	--	--	2.2
Duclair	--	5.1	--	--	--	--	--	2.1
WB 9668	67.1	--	--	3.4	23.1	--	--	2.0
SY Rockford	--	--	2.5	10.8	--	--	--	1.7
Mott	--	--	2.6	--	--	--	--	1.5
Dagmar	--	1.4	0.5	3.0	--	--	--	0.9
WB 9879 CLP	--	0.7	--	8.9	10.0	12.5	--	0.9
Choteau	--	1.4	--	--	--	--	--	0.9
Bolles	--	--	0.3	--	--	--	--	0.7
Trigger	--	--	--	--	--	--	13.2	0.4
Oneal	--	1.0	--	--	--	--	--	0.4
McNeal	--	--	0.3	--	--	--	--	0.4
WB 9719	--	0.8	--	--	--	--	--	0.3
Egan	--	--	--	--	--	--	--	0.3
Fortuna	--	0.6	--	--	--	--	--	0.3
Other, Unknown ¹	32.9	15.4	13.2	29.2	66.9	87.5	52.9	12.4
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⁾ Other, Unknown includes Albany, Alum, Ambush, Amidon, Breaker, Conan, Elgin, Forefront, Glenn, Kelby, Linkert, ND Presser CLP, Spitfire, Steeland, SY 611, WB 9590, Other, and Unknown varieties.

Winter Wheat: Reported Percent Planted by District and Variety, Montana 2022

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	--	35.7	--	16.1	--	--	--	28.1
Keldin	--	14.8	--	12.4	--	8.5	--	12.9
Bobcat	--	14.2	--	1.9	--	--	--	10.0
Yellowstone	--	4.8	--	9.9	16.8	2.0	--	5.9
Battle AX	--	4.6	--	8.2	--	--	--	4.7
Brawl CL Plus	--	0.6	--	16.6	19.1	14.8	--	4.6
Judee	--	5.2	--	--	--	4.0	--	3.9
FourOsix	--	--	--	8.7	--	--	--	2.4
LCS Fusion AX	--	1.5	--	--	--	--	--	2.3
Decade	--	--	19.6	2.8	--	--	--	2.2
Monument	--	0.9	--	7.7	--	--	--	2.1
Lorna	--	1.5	--	1.2	--	--	--	1.3
CDC Falcon	--	1.8	--	--	--	--	--	1.2
WB 4792	--	1.5	--	--	--	--	--	1.0
SY Clearstone 2CL	--	--	--	--	30.0	5.0	--	1.0
Standclear CLP	--	1.0	--	--	--	--	--	0.9
Willow Creek	22.3	--	1.1	1.4	--	1.7	5.7	0.7
SY Wolf	--	--	--	--	--	--	--	0.5
Northern	--	0.3	--	1.6	--	--	--	0.5
Rampart	--	0.7	--	--	--	--	--	0.4
WB Matlock	--	--	--	--	--	--	--	0.4
Ray	--	0.2	--	0.9	--	--	--	0.4
Other, Unknown ¹	77.7	10.7	79.3	10.6	34.1	64.0	94.3	12.6
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⁾ Other, Unknown includes AC Broadview, Alliance, Arapahoe, Camelot, Genou, Incline, Jagalene, Jerry, LCS Jet, Morgan, Peregrine, WB 4269, Other, and Unknown varieties.

Durum Wheat: Reported Percent Planted by District and Variety, Montana 2022

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
	%	%	%	%	%	%	%	%
Alzada	--	80.9	1.6	100.0	--	--	--	20.4
ND Riveland	--	--	16.6	--	--	--	--	12.6
Divide	--	--	15.2	--	--	--	--	11.8
Transcend	--	--	13.2	--	--	--	--	10.4
Joppa	--	--	10.7	--	--	--	--	8.7
Mountrail	--	--	6.6	--	--	--	--	5.0
Carpio	--	--	3.5	--	--	--	--	3.0
Tioga	--	--	2.9	--	--	--	--	2.2
Other, Unknown ¹	--	19.1	29.7	--	--	--	--	25.9
Total	--	100.0	100.0	100.0	--	--	--	100.0

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

¹⁾ Other, Unknown includes AC Avonlea, AC Strongfield, Alkabo, Ben, Kyle, Lebsock, Luster, VT Peach, Other, and Unknown varieties.