



MONTANA 2021 BARLEY VARIETIES

HIGHLIGHTS

This report provides the results of the barley 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. Usable positive barley reports totaled 644. 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 barley seeded in Montana for 2021 are estimated at 920,000, up from 890,000 acres planted in 2020. Montana continues to rank first in barley planted acreage in the United States with 35.3 percent of the 2.60 million acres planted. Malting varieties account for 66.6 percent of planted acres. Forage varieties totaled 14.9 percent and feed varieties totaled 13.1 percent.

AC Metcalfe is the leading barley variety in Montana for 2021. AC Metcalfe accounts for 30.2 percent of the 920,000 acres of barley planted in 2021. Hockett ranks second with 15.1 percent of the barley acreage. Bill Coors 100 ranked third with 7.2 percent of barley planted. Haybet represents 6.1 percent of the barley planted and ranks fourth. Lavina accounts for 4.3 percent of the barley acres and ranks fifth. These top five varieties account for 62.9 percent of the barley planted in 2021.

TOP MALTING VARIETIES

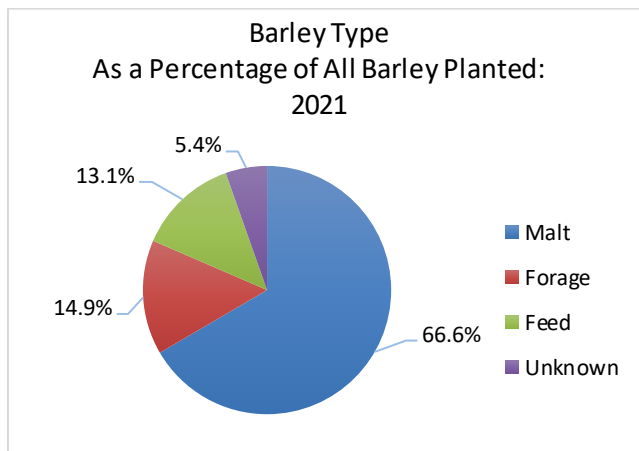
AC Metcalfe is also the leading malting barley variety in Montana for 2021 representing 30.2 percent of all acres seeded, as noted above. It is a two-row malting barley developed by Agriculture and Agri-Food Canada, located in Brandon, Manitoba. It has an 8 percent higher yield, but matures one day later than Harrington. It is resistant to loose smut and is moderately resistant to the spot-form of net blotch, surface-borne smuts, and common root rot. It has plump kernels and high test weight, but it is susceptible to scald and Septoria.

Hockett is the second leading malting barley variety in 2021, planted on 15.1 percent of the total barley acres. Hockett is a two-rowed dry land variety that was developed by Montana State University (MSU) in 2008. When compared to Harrington, Hockett has a higher yield and better malt quality given dry land conditions. It is susceptible to lodging and stripe rust.

Bill Coors 100 ranked third among malting barley varieties seeded for 2021, planted on 7.2 percent total acres. Bill Coors 100 is well suited for irrigation. It has a short straw length with high yield and early maturity. It is a two-row variety leaving minimal stubble and residue.

Moravian 165 is the fourth leading malting barley variety seeded for the 2021 crop year. An estimated 3.5 percent of all barley is planted to this variety. It is a two-rowed variety bred by Coors Brewing Company. It is a small-stature, high yielding variety suited for dryland ground and has a high malting quality. It originated as a cross between Moravian 119 and CDC Kendall.

ABI Voyager ranked fifth among the malting varieties planted for 2021 representing 2.5 percent of all barley varieties planted. ABI Voyager is a two-rowed variety with high yields, good plumpness, and good resistance to lodging.



Montana Top 5 Malting Varieties	
Variety	Percent of Total Acres Planted
AC Metcalfe	30.2
Hockett	15.1
Bill Coors 100	7.2
Moravian 165	3.5
ABI Voyager	2.5

TOP FORAGE VARIETIES

Haybet is the top forage variety planted by Montana farmers, accounting for 6.1 percent of the total barley acres seeded in 2021. It was developed cooperatively by the Agricultural Research Service, USDA, and the Montana Agricultural Experiment Station in 1989. It is a two-rowed, hooded, white-kernel spring hay barley. Compared to Horsford hay barley, Haybet is 3 days later in heading and similar in plant height and percent lodging. Haybet is higher in hay yield than Horsford, but they are similar in grain yield.

Lavina is the second most common forage barley variety planted in 2021, seeded on 4.3 percent of the total barley acres planted. It is a two-rowed, hooded hay barley developed by MSU, and is a cross between Haybet and Baronesse varieties. Lavina was released as a replacement for Haybet with the attributes of slightly higher forage production potential and much higher grain production potential.

Haymaker ranked third among all forage barley acres planted for 2021, with 1.3 percent of all barley planted to this variety. Haymaker is a two-row forage barley exhibiting high yields with excellent feed quality. Because of its height, it is great for baling and silage.

Stockford ranked fourth among forage barley acres planted, with 0.8 percent of all barley planted acres. Stockford is a two-row hooded hay barley. It is medium tall and matures mid-season. It was developed by WestBred and is adapted to the intermountain area of the Pacific Northwest and western areas of Canada.

Bestford ranks fifth among forage varieties at 0.3 percent of total planted acres in Montana for 2021. Bestford is a 6-row beardless variety with standard plant height, excellent yield potential, and good straw strength. Bestford has a high leaf to stem ratio which results in better forage.

Montana Top 5 Forage Varieties	
Variety	Percent of Total Acres Planted
Haybet	6.1
Lavina	4.3
Haymaker	1.3
Stockford	0.8
Bestford	--

Dashes indicate minor amount reported.

TOP FEED VARIETIES

Champion is the leading Montana feed barley variety in 2021, accounting for 2.7 percent of the 2021 planted barley acres. Champion was developed by WestBred LLC, Bozeman, Montana in 1997. It is a cross between Baronesse and Camas. It is a two-row spring barley that has a semi-erect to intermediate growth habit. Champion has fair to good resistance to lodging and shattering. It also shows strengths to neck breaking and drought.

Haxby is the second leading feed barley variety planted in 2021 on 2.2 percent of all barley acreage. Haxby is a two-rowed barley developed by MSU. Yields are equal to Baronesse and Eslick and are higher than Gallatin and Valier varieties. It is medium height and maturity, and has superior performance in low moisture conditions. Haxby has high test weights in both dry land and irrigated areas.

LCS Vespa is the third leading barley variety and can be found on 1.6 percent of 2021 planted barley acres. It is a two-rowed feed variety. It exhibits exceptional yields and straw strength, shorter plant height and medium plant maturity. Because of its stability, it is an excellent choice for irrigated production.

Baronesse ranked fourth among feed varieties with 1.4 percent of all barley acres planted in 2021. It is also a two-rowed feed variety, medium short in height and medium in maturity. It has a short, strong straw and good lodging resistance. It is both a dryland and irrigated variety, with higher yield potential when irrigated or when moisture is favorable.

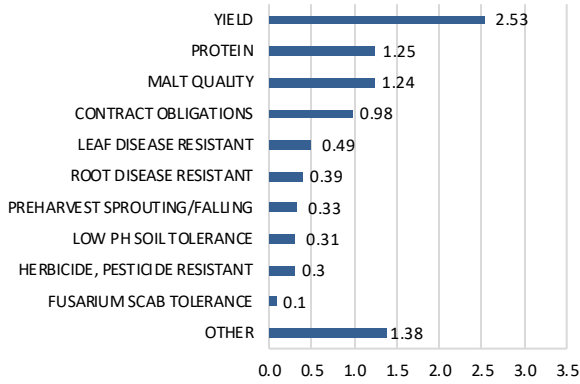
Hector ranks fifth among feed varieties planted in Montana for 2021. Hector is a 2-row rough-awned feed variety, primarily for dryland production. Its straw tends to be weak when irrigated and performs best in dry and higher elevations.

Montana Top 5 Feed Varieties	
Variety	Percent of Total Acres Planted
Champion	2.7
Haxby	2.2
LCS Vespa	1.6
Baronesse	1.4
Hector	0.3

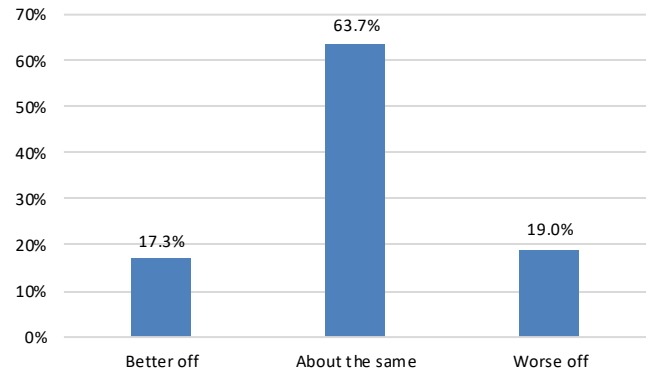
IMPORTANCE OF BARLEY VARIETY TRAITS

Survey respondents were asked to rank barley traits in order of importance where 5.00 is the highest and 1.00 is the lowest when choosing a barley variety for 2021. Yield was the highest ranked trait of importance with an average of 2.53 points out of 5.00. Other was ranked second with an average of 1.38 points. Protein was ranked third most important with the average of 1.25 points. Malt quality was ranked fourth with an average of 1.24 points and end use contract obligations was fifth at 0.98 points. These and all traits asked on the survey are illustrated in the chart below.

Barley Trait Index Montana: 2021



Expected Profitability of Operation Montana Barley and Wheat Growers: 2021



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 17.3 percent. No change in profitability was expected by 63.7 percent of farmers. Nineteen percent of farmers expected their operation to be worse off. Some farmers indicated drought and market conditions affected their answers.

Barley: Reported Percent Planted by District and Variety, Montana 2021

Variety	District 10 North west	District 20 North Central	District 30 Northeast	District 50 Central	District 70 Southwest	District 80 South Central	District 90 Southeast	State Total
	%	%	%	%	%	%	%	%
AC Metcalfe	--	35.4	--	33.4	14.2	--	--	30.2
Hockett	--	17.8	3.0	18.4	--	--	--	15.1
Bill Coors 100	--	2.8	--	2.2	--	51.2	--	7.2
Haybet	--	4.8	22.6	3.8	--	--	12.7	6.1
Lavina	18.6	1.9	16.3	7.5	--	4.2	5.3	4.3
Moravian 165	--	4.2	--	3.3	--	--	--	3.5
Champion	--	--	--	--	--	--	--	2.7
ABI Voyager	--	2.9	--	--	7.9	--	--	2.5
Conlon	--	--	--	10.0	--	--	7.0	2.3
Haxby	13.1	1.1	6.2	5.4	--	--	--	2.2
LCS Vespa	--	--	--	--	--	--	--	1.6
Baronesse	--	2.1	--	--	--	--	--	1.4
Copeland	--	1.8	--	--	--	--	--	1.3
Haymaker	--	1.1	3.4	1.3	--	--	--	1.3
Merit 57	--	1.5	--	--	--	--	--	1.2
Stockford	--	--	4.9	--	5.9	--	--	0.8
Mayflower	--	0.8	--	--	--	--	--	0.7
ABI Eagle	--	1.0	--	--	--	--	--	0.7
Legacy	--	--	--	--	12.1	--	--	0.4
Conrad	--	--	--	--	--	7.3	--	0.3
Buzz	--	--	--	--	--	--	--	0.3
Hector	--	--	3.1	--	--	--	--	0.3
Other, Unknown ¹	68.3	20.8	40.5	14.7	59.9	37.3	75.0	13.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹⁾ Other, Unknown includes Bestford, Harrington, Horsford, LCS Genie, Stark, Westford, Other, and Unknown varieties. Dashes indicate either none or minor amount reported.

Montana's Agricultural Districts

