



MONTANA 2023 BARLEY VARIETIES

HIGHLIGHTS

This report provides the results of the barley portion of the 2023 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 2,094 with 1,812 usable reports for both wheat and barley. Usable, positive barley reports totaled 732. 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 area seeded to barley in Montana for 2023 is estimated at 1,200,000 acres, up from 1,030,000 acres planted in 2022. Montana continues to rank first in barley planted acreage in the United States, with 37.6 percent of the 3.19 million acres planted. Malting varieties account for 64.6 percent of planted acres in Montana. Feed varieties totaled 13.9 percent and forage varieties totaled 13.2 percent. Varieties reported in the other and unknown categories totaled 8.3 percent of planted acres.

AC Metcalfe is once again the leading barley variety in Montana for 2023. AC Metcalfe accounts for 25.5 percent of the 1,200,000 acres planted in 2023. Hockett ranks second with 17.2 percent of the barley acreage. Bill Coors 100 represents 7.3 percent of the barley planted, and ranks third. Haxby ranks fourth, with 6.7 percent of barley planted. Conlon accounts for 5.7 percent of the barley acres, and ranks fifth. These top five varieties account for 62.4 percent of the barley planted in 2023.

TOP MALTING VARIETIES

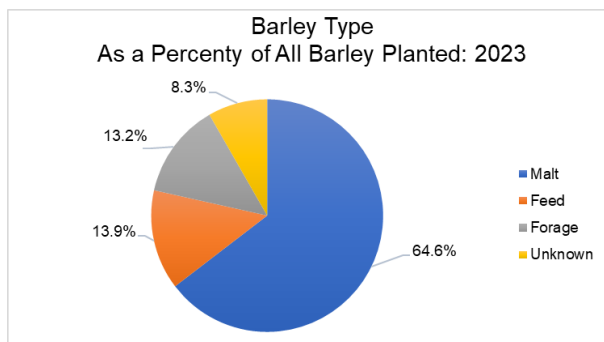
AC Metcalfe is once again the leading malting barley variety in Montana for 2023, representing 25.5 percent of all acres seeded, as noted above. It is a two-row malting barley developed by Agriculture and Agri-Food Canada, located in Brandon, Manitoba. It has an 8 percent higher yield, but matures one 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 2023, planted on 17.2 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 2023, planted on 7.3 percent of the 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.

Conlon is the fourth leading malting barley variety seeded for the 2023 crop year. An estimated 5.7 percent of all barley is planted to this variety. Conlon is a two rowed variety with large plump kernels. It was developed at the North Dakota Agricultural Experiment Station. It has high test weight, medium straw length, medium straw strength, and mid-season maturity. It is resistant to net blotch, the MCC form of stem rust, and powdery mildew.

Moravian 165 is the fifth leading malting barley variety seeded for the 2023 crop year. An estimated 2.1 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.



TOP FEED VARIETIES

Haxby is again the leading feed barley variety planted in 2023, representing 6.7 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.

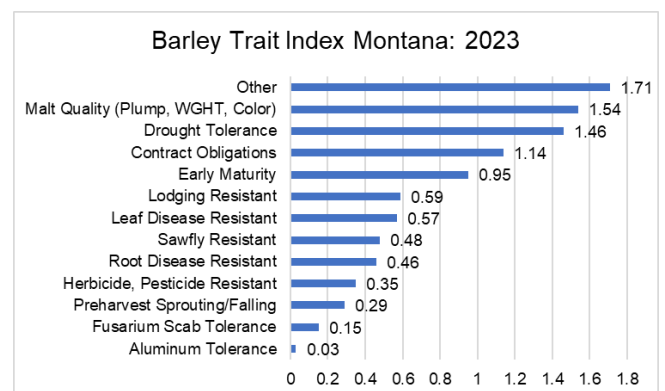
Champion is the second leading Montana feed barley variety in 2023, accounting for 2.1 percent of the 2023 planted barley acres. Champion was developed by WestBred LLC, Bozeman, Montana in 1997. It is a cross between Baronesse and Camas. It is a two-row spring barley that has a semi-erect to intermediate growth habit. Champion has fair to good resistance to lodging and shattering. It also shows strengths to neck breaking and drought.

Claymore ranked third for feed varieties planted in 2023, at 1.2 percent of all barley acres seeded. It is a two-row, bearded barley with high-test weight, medium height, excellent yield, superior straw strength, excellent standability and Fusarium head blight tolerance.

Montana Top 3 Feed Barley Varieties	
Variety	Percent of Acres Planted
Haxby	6.7
Champion	2.1
Claymore	1.2

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 2023. Other moved to highest ranked trait for 2023, with an average of 1.71 points out of 5.00. Some of the traits farmers reported as other were yield, forage quality, availability, familiarity, reliability, and test weight. Malt quality was ranked second most important with the average of 1.54 points. Drought tolerance was ranked third with 1.46 points out of 5.00. Contract obligations was ranked fourth, with an average of 1.14 points, and early maturity was fifth at 0.95 points. These, and all traits asked on the survey, are illustrated in the chart below.



Montana Top 5 Malting Barley Varieties	
Variety	Percent of Acres Planted
AC Metcalfe	25.5
Hockett	17.2
Bill Coors 100	7.3
Conlon	5.7
Moravian 165	2.1

TOP FORAGE VARIETIES

Haybet is once again the top forage variety planted by Montana farmers, accounting for 4.4 percent of the total barley acres seeded in 2023. 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 2023, seeded on 3.8 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 once again ranks third among all forage barley acres planted for 2023, with 1.8 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.

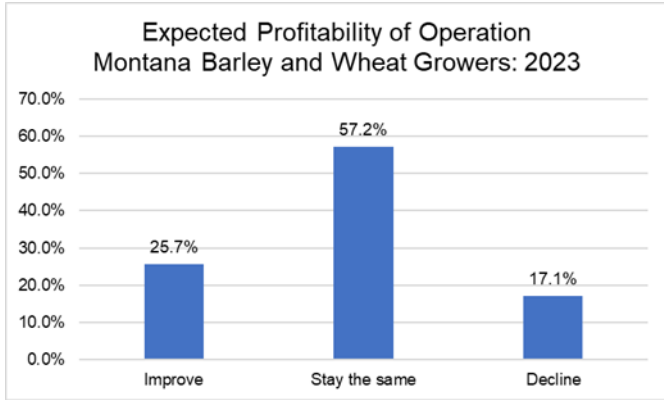
Bestford ranks fourth among forage varieties, at 0.7 percent of total planted acres in Montana for 2023. Bestford is a 6-row beardless variety with standard plant height, excellent yield potential, and good straw strength. Bestford has a high leaf to stem ratio which results in better forage.

Stockford ranks fifth among forage barley acres planted, with 0.6 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.

Montana Top 5 Forage Barley Varieties	
Variety	Percent of Acres Planted
Haybet	4.4
Lavina	3.8
Haymaker	1.8
Bestford	0.7
Stockford	0.6

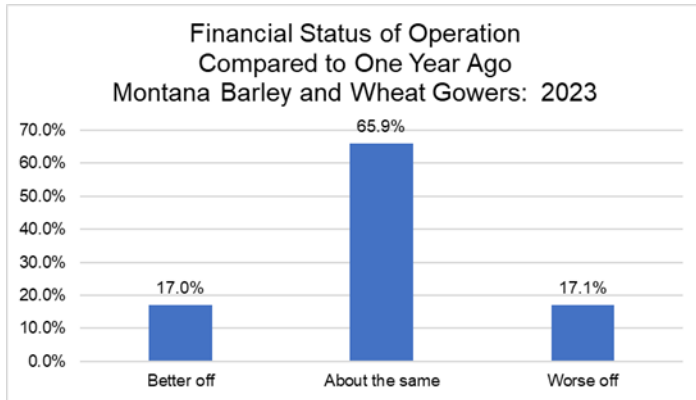
PROFITABILITY OF OPERATION

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 25.7 percent. No change in profitability of their operation was expected by 57.2 percent of farmers. Farmers who expected their operation would decline stood at 17.1 percent.



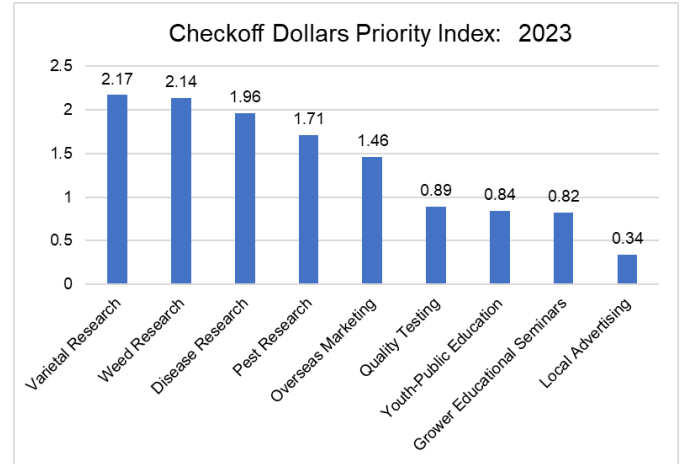
FINANCIAL COMPARISON TO ONE YEAR AGO

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 17.0 percent. Farmers who reported their operation was about the same came to 65.9 percent, and those who said their operation was worse off financially stood at 17.1 percent.



INVESTMENT OF CHECK-OFF DOLLARS

Lastly, farmers were asked how they would like their check-off dollars invested with 5.00 as the highest, and 1.00 as the lowest choice. Varietal Research was the highest ranked answer, with an average of 2.17 out of 5.00 points. Weed Research was ranked a close second, with 2.14 out of 5.00 points. Disease Research was ranked third most important, with an average of 1.96 points. Pest Research was ranked fourth, averaging 1.71 points, and Overseas Marketing was fifth, at 1.46 points. These, and all answers with rankings, are illustrated on the chart below.



Montana's Agricultural Districts



Barley: Reported Percent Planted by District and Variety – Montana: 2023

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
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
AC Metcalfe	--	34.1	--	18.4	--	--	--	25.5
Hockett	--	20.8	--	21.3	--	--	--	17.2
Bill Coors 100	--	4.6	--	5.4	--	49.6	21.7	7.3
Haxby	38.0	7.6	--	10.3	--	--	--	6.7
Conlon	--	6.3	--	10.0	--	--	--	5.7
Haybet	--	1.2	19.2	4.6	4.2	14.7	15.2	4.4
Lavina	13.3	2.9	8.9	4.2	--	4.7	7.3	3.8
Champion	--	3.1	--	--	--	--	--	2.1
Moravian 165	--	3.1	--	--	--	--	--	2.1
ABI Voyager	--	1.7	--	1.4	13.7	2.1	--	1.8
Haymaker	--	1.2	5.6	2.8	--	--	--	1.8
Claymore	--	1.6	--	--	--	--	--	1.2
Buzz	--	1.3	--	--	--	--	--	1.0
ABI Eagle	--	1.0	--	--	--	--	--	0.9
Altorado	--	0.7	--	2.4	--	--	--	0.8
Baronesse	--	0.9	--	--	--	--	--	0.7
Bestford	--	--	--	--	--	--	--	0.7
Moravian 37	--	1.0	--	--	--	--	--	0.7
Stockford	--	--	--	1.0	3.4	2.0	--	0.6
Redrock	--	0.3	--	--	--	1.1	8.0	0.5
Merit 57	--	--	--	--	--	--	--	0.4
Expedition	--	--	--	--	--	--	--	0.3
Conrad	--	--	--	--	--	3.8	--	0.2
Explorer	--	--	--	--	0.1	--	--	0.2
Vaquero	--	--	0.5	0.4	0.7	--	--	0.1
Other, Unknown ¹	48.7	6.6	65.8	17.8	77.9	22.0	47.8	13.3
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 ACC Energy, Bowman, Copeland, Esma, Harrington, Hector, LCS Genie, Mnbriet, Vespa, Westford, Other, and Unknown varieties.