

# Know Your 2021

# MALTING BARLEY VARIETIES



## Two-Rows

AAC Connect	(2020)	LCS Odyssey	(2020)
AAC Synergy	(2015)	LCS Violetta*	(2019)
ABI Eagle	(2020)	Mayflower	(2021)
ABI Growler	(2019)	Merit 57	(2010)
ABI Voyager	(2014)	Moravian 37	(2010)
AC Metcalfe	(2005)	Moravian 69	(2010)
Bill Coors 100	(2019)	Moravian 164	(2020)
CDC Copeland	(2007)	Moravian 165	(2019)
Charles*	(2009)	Moravian 170	(2020)
Conlon	(2000)	Moravian 179	(2021)
Conrad	(2007)	ND Genesis	(2016)
Endeavor*	(2015)	Newdale	(2018)
Expedition	(2013)	Pinnacle	(2011)
Explorer	(2018)	Puffin*	(2018)
Flavia*	(2021)	Thunder*	(2019)
Hockett	(2010)	Wintmalt*	(2013)
LCS Genie	(2017)	Variety name & year first recommended	

## Six-Rows

Celebration	(2011)
Innovation	(2014)
Lacey	(2000)
Legacy	(2001)
Quest	(2011)
Thoroughbred*	(2015)
Tradition	(2004)

**\*Winter**

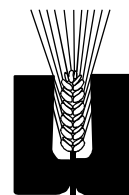
These malting varieties listed in alphabetical order are recommended by AMBA for planting in 2021. When delivered to market in pure carlots of sound, bright, plump, low moisture barley in an acceptable protein range, they may command premium prices over feed barley. Growers are encouraged to contact their local elevator, grain handler or processor to gauge market demand for any variety grown in their region prior to seeding. 2020 crop plantings by variety are included at the end of this publication.

*prepared and distributed by*

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## Malting Varieties Planted in US

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
	(% of Total Malting Varieties)			
SIX-ROW	27.3%	19.1%	4.5%	6.4%
TWO-ROW	72.7%	80.9%	95.5%	93.6%

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Six-Rows</b>	(% of Six-Row Malting Varieties)			
INNOVATION	6.0%	*	*	*
LACEY	22.3%	21.9%	4.9%	13.8%
LEGACY	0.9%	4.0%	14.3%	11.7%
TRADITION	70.8%	74.1%	80.8%	74.5%

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Two-Rows</b>	(% of Two-Row Malting Varieties)			
AAC CONNECT	*	*	*	2.7%
AAC SYNERGY	1.8%	2.6%	7.6%	8.3%
ABI EAGLE	*	*	*	1.2%
ABI GROWLER	1.9%	2.8%	2.8%	1.0%
ABI VOYAGER	13.8%	16.9%	11.5%	17.1%
AC METCALFE	17.3%	17.2%	12.0%	10.2%
BILL COORS 100	8.3%	6.9%	6.1%	7.1%
CDC BOW	*	*	0.4%	0.6%
CDC COPELAND	10.3%	9.4%	7.6%	5.7%
CHARLES	1.0%	0.7%	0.6%	0.3%
CONRAD	5.5%	4.2%	3.7%	2.5%
EXPEDITION	1.5%	1.5%	3.2%	1.4%
EXPLORER	1.2%	1.8%	3.3%	1.8%
HOCKETT	4.4%	2.5%	4.2%	9.6%
LCS GENIE	0.1%	*	0.2%	0.2%
LCS ODYSSEY	*	*	0.2%	0.2%
MERIT 57	5.5%	5.7%	5.2%	5.2%
MORAVIAN 37	0.1%	*	*	*
MORAVIAN 69	17.4%	15.9%	12.1%	5.3%
MORAVIAN 164	*	*	0.3%	2.7%
MORAVIAN 165	5.6%	5.6%	4.7%	3.1%
MORAVIAN 170	*	*	*	*
MORAVIAN 179	*	*	*	0.3%
MORAVIAN 180	*	*	*	*
ND GENESIS	0.8%	2.5%	9.4%	8.7%
PINNACLE	2.5%	2.0%	2.6%	1.2%
SCARLETT	0.4%	0.1%	*	*
THUNDER	*	0.2%	0.5%	0.8%
WINTMALT	0.6%	0.6%	0.5%	0.5%

\* Less than 0.1%

Source: AMBA Industry Barley Variety Surveys (CO, ID, MN, MT, ND, WA, WY)

# VARIETY IDENTIFICATION PROCEDURE

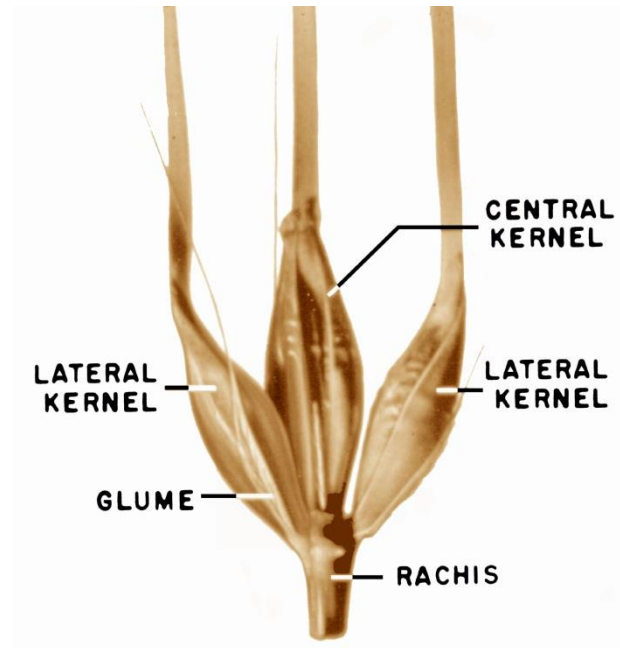
## VARIETY IDENTIFICATION IS NOT DIFFICULT

Surveys show that in any one community there are usually not more than five or six varieties. With careful study of typical, pure kernel samples one can learn to recognize local varieties with a high degree of accuracy.

### GUIDES IN IDENTIFYING KERNELS OF BARLEY VARIETIES

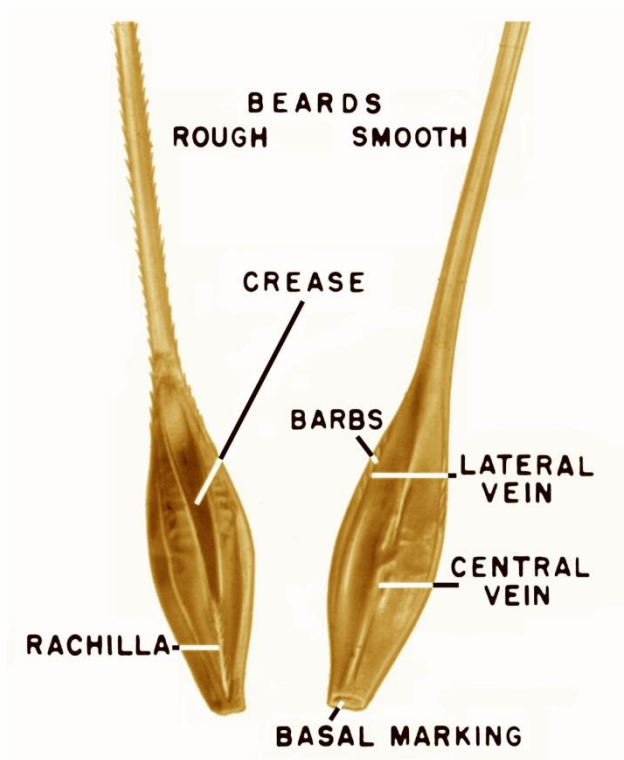
1. Study type samples - look at the sample as a whole, not at only a few individual kernels. Line up a row of 10-20 kernels pointing the base end toward the light source.
2. Use a magnifier with a good strong light - north daylight is best.
3. Know which varieties are being grown in your area - keep an eye open for any new introductions. Study varietal kernel characteristics for each new crop.

Do not be afraid to look and look, and look again.



### TO IDENTIFY A SAMPLE

- A. Check general appearance of the sample. A pure sample will usually appear uniform. A sample containing a mixture of varieties generally has a non-uniform appearance.
- B. Determine the major kernel characters as follows:



1. Six-Row or Two-Row - The lateral or side kernels in six-row varieties are twisted. Therefore, in six-row varieties, two-thirds of the kernels are twisted. In two-row varieties, which have no lateral kernels, all kernels are straight and symmetrical and none are twisted.
2. White or Blue pearl (aleurone) – This is an easy character to determine with the use of a barley pearling machine. Sometimes blue varieties may have very weakly developed blue color and can be confused with white pearls.
3. Rough or Smooth Beards (awns) – There are usually enough broken pieces of beard or short pieces of beard attached to the kernel so that this character can easily be determined. Most smooth or semi-smooth bearded varieties have a few barbs at the tip but have no barbs on the rest of the beard.

4. Long or Short Hairs on Rachilla - This is an excellent character to use but a hand magnifying lens is needed to see the rachilla hairs. The difference between long and short hairs is very pronounced and does not vary from year to year or in different areas. Some varieties have aborted rachillas, these can be seen readily with the naked eye.

C. If the above characters are not sufficient to identify a variety, other characters will have to be used. The most useful are described below:

1. The basal mark can vary from a depression to a transverse crease. A depression is a smooth uniform hollow or “dimple”. A transverse crease is a sharp fold or line.
2. Crease shape may vary from wide, open and V-shaped from base of kernel to narrow and almost closed. In some varieties the crease is closed in the bottom half of the kernel and flaring at the tip end. This character will vary with growing conditions and plumpness of kernel.

3. Barbs on lateral veins can be seen with a magnifying glass or felt with the finger. Their number varies from none to many in different varieties. These barbs are not related to the barbs on the beards of rough bearded varieties.

4. Hairs on glumes require careful observation with a hand magnifying lens to determine the length of hairs and their location on the glume. This can be a very useful character in varieties such as Foster where the glumes are covered with long hairs.

5. Kernel shape varies with growing conditions but can be of value in a local area. The relationship between length and width and fullness in different parts of the kernel are useful characters. Kernel shape may be smooth and tapered or there may be prominent bulges or other distinctive features.

6. Wrinkling of the hull varies from very fine to coarse. Many two-row varieties have numerous, very fine wrinkles. Some varieties, such as Steptoe, have very little wrinkling and may have a smooth hull.

C. In any area one may find additional characters which will be of use in identifying local varieties. It is important to study locally grown samples each year as some kernel characters may vary depending on the season and location at which a variety is grown.

### RACHILLA HAIRS



Rachilla hairs: left – long, center – short, right - aborted

## KERNEL CHARACTERS



Hairiness of glumes: left to right – covered, in band, on midline, without hairs or smooth.

## GLUME HAIRS



Variations in

width.

crease shape and

## CREASE SHAPE

## KERNEL CHARACTERS



Basal mark: left – depression, center – depression tending to crease, right – transverse crease.

## BASAL MARK

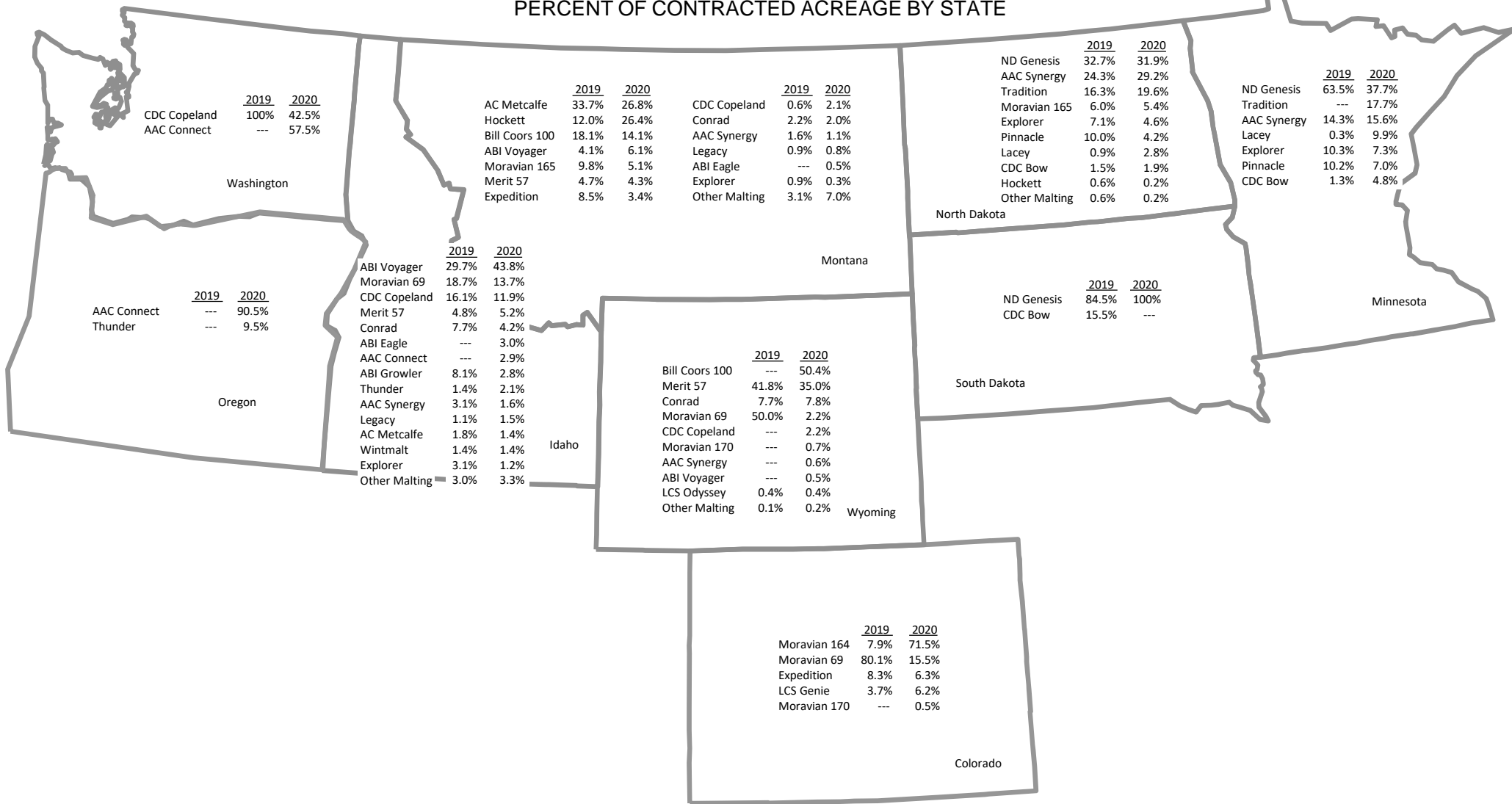


Wrinkling of hulls: left – slightly wrinkled, center – semi-wrinkled, right – wrinkled.

## HULL WRINKLING

# Barley Variety Survey - 2020

## PERCENT OF CONTRACTED ACREAGE BY STATE



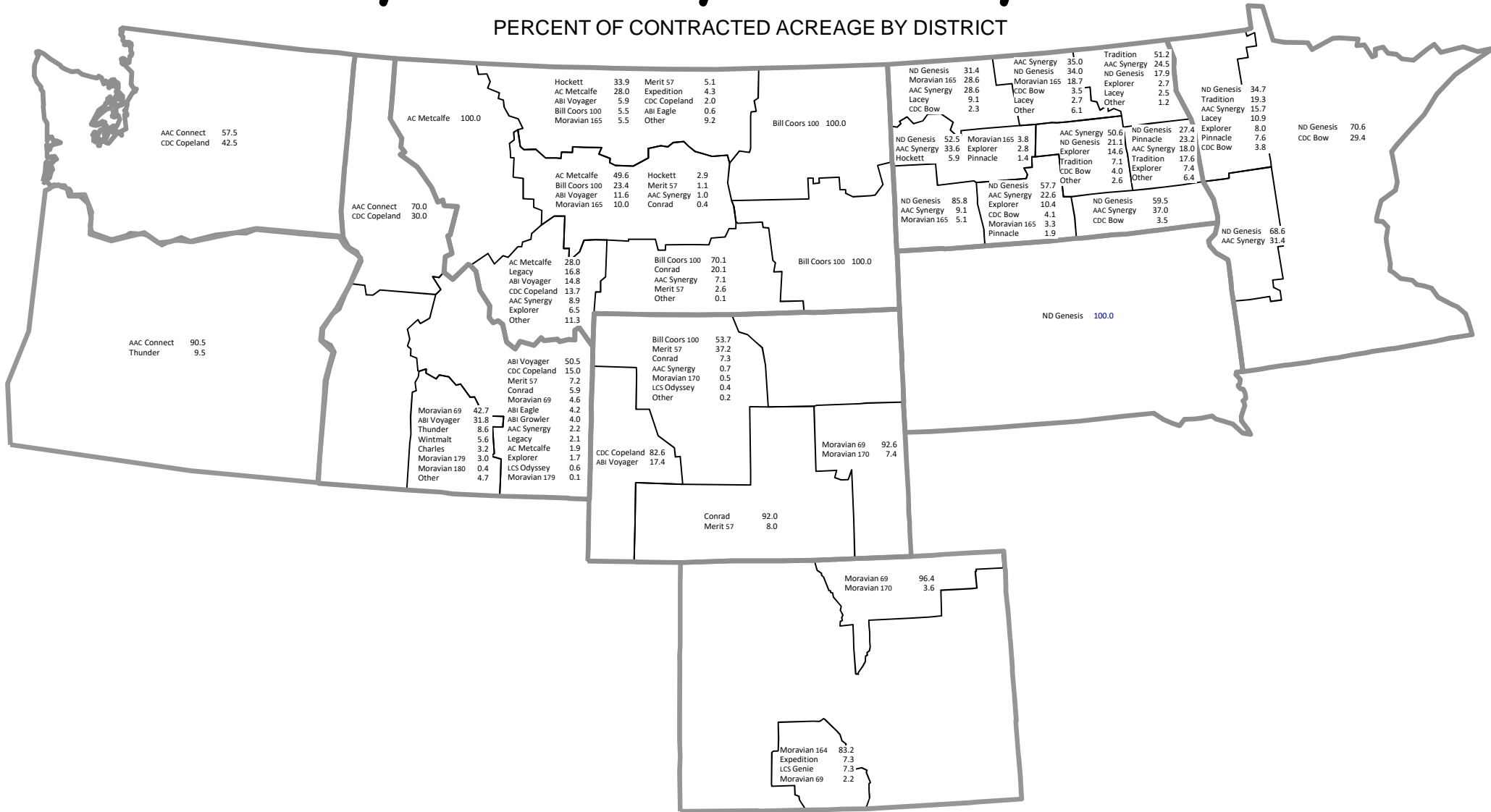
REPORT BASED UPON AN INDUSTRY SURVEY OF ACRES CONTRACTED BY VARIETY. PERCENTAGES BASED ON TOTAL REPORTED CONTRACTED ACRES.





# Barley Variety Survey - 2020

## PERCENT OF CONTRACTED ACREAGE BY DISTRICT



REPORT BASED UPON INDUSTRY SURVEY OF ACRES CONTRACTED BY VARIETY. PERCENTAGES BASED ON TOTAL CONTRACTED ACRES IN A DISTRICT.

Other represents contracted area of minor or low acreage varieties in a region.

