

ABI Montana

‘ABI Montana’ is a spring, two-row malting barley variety intended for adjunct brewing. It is primarily adapted to dryland and low irrigation production systems in northwest Montana. It has competitive yield, test weight, and kernel plumpness with earlier harvest maturity and improved malting characteristics compared to other varieties grown in the target region. Notably, ‘ABI Montana’ carries the high thermostability form of β -amylase.

‘ABI Montana’ was developed from a cross made in 2012 between two AB InBev experimental breeding lines, and it has been undergoing replicated field testing since 2014. The extended pedigree of ‘ABI Montana’ contains commercial varieties ‘CDC Thompson’ and ‘Merit’. A Plant Variety Protection certificate was issued on 08/22/2025 (PVP Certificate No. 202400380), and certified seed production is overseen by Treasure State Seed in Fairfield, MT.

ABI Breeding Trial Summary (2017-2025)

Conrad, MT (Dryland)			
Trait	ABI Montana	Hockett	Site-Years
Barley Quality			
Grain Protein (%)	11.52	11.79	5
Plump Kernels (%)	90.6	95.0	3
Measures of Malt Modification			
β -glucan (ppm)	212	354	3
Soluble/Total Protein	44.1	37.8	3
Turbidity (NTU)	3	6	3
Viscosity (cP)	1.54	1.87	3
Congress Wort			
Fine Extract (% dsb)	81.3	81.1	4
Color (ASBC)	1.27	1.12	3
FAN (mg/L)	148.1	113	3
Malt Enzymes			
Diastatic Power (°L)	393.2	354.3	3
α -amylase (DU)	68.6	53.2	3

Fairfield, MT (Low Irrigation)			
Trait	ABI Montana	Hockett	Site-Years
Barley Quality			
Grain Protein (%)	12.67	12.77	4
Plump Kernels (%)	93.6	94.3	5
Measures of Malt Modification			
β -glucan (ppm)	303	477	4
Soluble/Total Protein	46.2	37.9	4
Turbidity (NTU)	3.8	8.7	4
Viscosity (cP)	1.50	1.59	2
Congress Wort			
Fine Extract (% dsb)	81.7	82.1	4
Color (ASBC)	1.6	1.3	4
FAN (mg/L)	199	146	4
Malt Enzymes			
Diastatic Power ($^{\circ}$ L)	530	505	4
α -amylase (DU)	82.7	63.3	4

2025 On-Farm Trial – ABI Montana

Growing Region: Conrad, MT

Number of fields sampled: 5

Number of technical replicates per field: 5

Grain Protein (%)			
Mean	Min	Max	SD
12.15	10.81	12.91	1.05

Trait	With GA ¹	Without GA
Measures of Malt Modification		
β -glucan (ppm)	144	166
Soluble/Total Protein	47.9	46.5
Turbidity (NTU)	3.00	3.04
Viscosity (cP)	1.47	1.48
Congress Wort		
Soluble Protein (%)	5.30	5.20
Fine Extract (% dsb)	81.6	81.3
Color (ASBC)	1.70	1.65
FAN (mg/L)	247	241
Malt Enzymes		
Diastatic Power ($^{\circ}$ L)	143	144
α -amylase (DU)	72.5	71.9

¹0.1ppm