

2-ROW SPRING

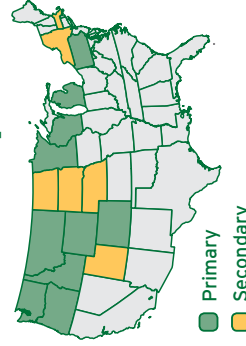
LCS Genie



The Genie Is in the Bottle

With a malting profile tailored for the craft industry and yield levels comparable with feed varieties, LCS Genie is a favorite of brewers, maltsters and farmers alike.

Areas of Adaptation



By the Numbers

Dependable fine grind extract
81.5+% d.b.

Recommended variety by the American Malting Barley Association (AMBA)

Beta-glucan content consistently under 100 ppm

Malting & Brewing LCS Genie



Malting Specifications

Specification	2016 LCS ¹ Fort Collins, Colorado	2016 MSU ² Bozeman, Montana	2015 MSU ³ Combined Michigan	2013 AMBA ⁴ Idaho Falls, Idaho	2013 AMBA ⁴ Pullman, Washington
Barley					
Plump (On 6/64) (%)	93.2	99.9	97.5	96.6	92.4
Moisture (%)	10.8	-	15.1	8.0	8.3
Total Protein (% d.b.)	10.9	-	11.0	11.0	11.6
Pre-Harvest Sprouting (RVA)	158	-	115	-	-
DON (ppm)	< 0.1	-	0.1	-	-
Malt					
Extract, Fine Grind (% d.b.)	81.8	79.6	83.2	82.7	80.4
Wort Color (Deg. Lov.)	1.57	2.00	2.55	3.40	1.60
Diastatic Power (Deg. L)	137	173	103	143	153
Alpha Amylase (D.U.)	54.7	50.1	59.6	60.0	61.4
Soluble Protein (% d.b.)	4.40	4.15	4.28	5.40	4.50
Total Protein (% d.b.)	10.9	13.2	10.7	11.6	11.9
Soluble/Total Protein (% d.b.)	40.4	32.4	42.8	46.9	38.0
Beta-Glucan (ppm)	66	67	36	48	51
Free Amino Nitrogen (FAN)	175	151	206	230	168

Malt House Analysis¹

Chitting (%)	Steep Out Moisture (%)	Malt Yield (%)	96-Hour Acrospire Count				
			0-1/4	> 1/4-1/2	> 1/2-3/4	> 3/4-1	> 1
95	46.8	90.5	0	0	5	90	5

¹LCS data obtained from Hartwick College: hartwick.edu/about-us/centers-institutes/center-for-craft-food-and-beverage/
²Data obtained from Montana State University: plantsciences.montana.edu/crops/index.html
³Data obtained from Michigan State University: msu.anr.msu.edu/topic/malting_barley/research
⁴Data obtained from the American Malting Barley Association: ambainc.org/



Growing LCS Genie

Yield & Protein Content		MEAN
3-Year WSU High Rainfall	LCS Genie Trial Avg. 109.8 bu/ac yield Associated protein content: 11.8%	108% of mean
3-Year WSU Med. Rainfall	LCS Genie Trial Avg. 80.8 bu/ac yield Associated protein content: 12.6%	106% of mean
3-Year WSU Low Rainfall	LCS Genie Trial Avg. 63.3 bu/ac yield Associated protein content: 13.8%	107% of mean
2-Year OSU	LCS Genie Trial Avg. 84.3 bu/ac yield Associated protein content: 12.2%	105% of mean
2016 UI North	LCS Genie Trial Avg. 121.0 bu/ac yield Associated protein content: N/A	108% of mean
3-Year UI South	LCS Genie Trial Avg. 131.7 bu/ac yield Associated protein content: 11.5%	104% of mean
2016 MSU (MT) Irrigated	LCS Genie Trial Avg. 127.3 bu/ac yield Associated protein content: 10.0%	114% of mean
2016 MSU (MT) Dryland	LCS Genie Trial Avg. 97.3 bu/ac yield Associated protein content: 11.5%	112% of mean
2016 UMN	LCS Genie Trial Avg. 98.7 bu/ac yield Associated protein content: N/A	105% of mean
3-Year MSU (MI)	LCS Genie Trial Avg. 74.1 bu/ac yield Associated protein content: 11.0%	102% of mean

Agronomic Features

University of Idaho South				Oregon State			
TW (lb/bu)	Height (in)	Heading	Height (in)	TW (lb/bu)	Height (in)	Heading	Height (in)
LCS Genie	49.7	26.7	3.2	LCS Genie	50.4	25.3	25.3
CDC Copeland	49.1	34.3	0.5	Full Pint	53.5	25.2	25.2
AAAC Synergy	48.5	32.7	-1.1	CDC Copeland	50.3	29.0	29.0
AC Metcalfe	50.0	33.7	-1.5	AAAC Synergy	52.8	29.4	29.4
Moravian 69	46.0	27.0	3.2				

Montana State				Dryland			
TW (lb/bu)	Height (in)	Heading	Height (in)	TW (lb/bu)	Height (in)	Heading	Height (in)
LCS Genie	53.7	27.2	3.2	53.9	24.5	3.4	3.4
CDC Copeland	53.9	31.9	2.2	53.3	27.8	1.3	1.3
AC Metcalfe	54.0	32.6	-1.8	53.6	29.5	-1.1	-1.1
AAAC Synergy	52.5	31.7	0.2	53.0	28.7	-0.5	-0.5

University of Minnesota			
Lodging (1-9)	Height (in)	Heading (DOM*)	Heading (DOM*)
LCS Genie	2.5	30.6	4.8
ND Genesis	3.2	35.2	-0.9
AC Metcalfe	4.9	35.0	0.6
AAAC Synergy	3.7	34.2	1.1

Michigan State			
TW (lb/bu)	Height (in)	Heading (DOM*)	PHS (RVA)
LCS Genie	50.7	22.2	0.7
CDC Copeland	37.2	24.0	1.7
AC Metcalfe	50.3	25.6	-1.0
AAAC Synergy	50.4	24.7	-1.7

Washington State			
TW (lb/bu)	Height (in)	Heading (DOM*)	Heading (DOM*)
LCS Genie	52.3	28.3	8.0
CDC Copeland	51.4	38.0	8.4
LCS Genie	53.1	26.3	2.5
CDC Copeland	51.6	35.0	3.5
LCS Genie	53.3	25.5	1.0
CDC Copeland	52.5	34.0	3.0

Data sets are available in their entirety at individual university websites. Links to these websites are listed on page 32 of this guide.
*Days off mean of trial