

Hops Variety Information	WREC-2016
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Variety	Origin <sup>1</sup>	Brew Usage <sup>2</sup>	Typical Beer Style	Typical Alpha Acid Ranges	2015 Tested Alpha Acid	2016 Tested Alpha Acid	2015 Hop Storage Index <sup>3</sup>	2016 Hop Storage Index <sup>3</sup>	2016 Harvested Moisture
				----- % -----					---%---
Brewer's Gold	UK	B	Ale	8-10	3.2	7	0.25	0.26	71.3
Cascade	DM	A	American Pale Ale	5-7	3.1	3.7	0.21	0.20	73.0
Centennial	DM	D	American Pale Ale	9.5-11	6.3	10.8	0.24	0.25	72.0
Challenger	UK	D	English Ale	6.5-9	8.9	14.2	0.24	0.25	71.3
Galena	DM	B	English Ale	10-15	6.2	8.5	0.21	0.21	74.7
Glacier	DM	D	American Pale Ale	5.5	4.2	4.2	0.24	0.23	70.0
Mt. Hood	DM	A	Lager	4-7	3.0	3.1	0.22	0.21	74.0
Newport	DM	B	Barley Wine	13-17	2.4	6.7	0.25	0.25	73.5
Nugget	DM	B	Barley Wine	12-14	3.6	12.6	0.22	0.22	70.7
Spalt Select	GE	A	Bock	3-6.5	3.0	2.6	0.26	0.27	68.5
Willamette	DM	A	English Style Ale	4-6	2.0	3.0	0.26	0.27	72.3
Zeus	DM	B	Pale Ale	20	1.2	3.9	0.26	0.23	77.5

<sup>1</sup>DM = Domestic, UK = United Kingdom, GE = German as reported by Hopunion LLC

<sup>2</sup>A = Aroma, B = Bittering, D = Dual purpose as reported by Hopunion LLC

<sup>3</sup>HSI is a non-dimensional number calculated by measuring the adsorption of an alkaline methanolic hop extract at two different wavelengths using UV spectrophotometric analysis. Normal range is from 0.25 for fresh hops and 2.5 for fully oxidized hops.

Mean 72.4  
C.V. (%) 3.6  
LSD (10%) 3.7