



# Sandy Ridge Farms Hop Informational Sheet

Variety	Description	Alpha Acids	Beta Acids	Yield (lbs/Acre)
<b>AlphAroma</b>	A uniquely bred New Zealand hop, this varietal originated in the 1970s, but was not commercially released until about 1983. The unique oil balance and medium alpha acid content makes AlphAroma a dual purpose hop. Put these characteristics to good use by adding to Pale Ales and Lagers to add a firm bitterness as well as a citrusy, fruity aroma. A suitable substitute for Rakau.	5.8-10.9%	2.4-4.8%	1,100 - 3,400
<b>Bitter Gold</b>	A super-alpha variety often compared to Nugget or Galena. Its heritage comes from Bullion, Brewer's Gold, Comet, and Fuggle. Used for bittering or addition of strong flavors of stone fruit, watermelon and pear. Bitter Gold can be used interchangeably with Eldorado™	15.4-18.8%	6.1-8%	
<b>Bramling</b>	A popular aroma hop in England around the turn of the century, its profile is of very low alpha acids and moderately low cohumulone with a pleasant European aroma profile.	5.80%	3%	600-1,000
<b>Cascade</b>	Cascade is an aroma hop that was developed by the USDA breeding program in Oregon and released in 1972. It has a medium strength aroma that provides a unique floral/spicy character with well balanced bittering potential.	4.5 - 7%	4.8 - 7.0%	1,600 - 2,000
<b>Cashmere</b>	Cashmere was released by Washington State Univ in 2013. A daughter of Cascade, it includes Northern Brewer germplasm through the male parent. The alpha acid content of Cashmere is higher than Cascade. Cashmere has a mild herbal aroma and smooth bitterness.	7.7-9.1%	6.4-7.1%	1,800 - 2,000
<b>Centennial</b>	Centennial is an aroma variety that was released in 1990. It was derived from three-quarters Brewer's Gold with minor contributions from Fuggle, East Kent Golding and others. It is among the most popular varieties for US craft brewers and is sometimes referred to as a super Cascade.	9.5 - 11%	3.5 - 4.5%	1,500 - 1,750
<b>Chinook</b>	Chinook was developed by the USDA breeding program in Washington State and released in 1985 as a high alpha variety. It has a highly acceptable beer aroma profile of spicy, piney and grapefruit tones with smooth bitterness and full flavor.	12 - 14%	3.0 - 4.0%	1,700 - 2,100

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<b>Cluster L8</b>	Cluster is the oldest hop variety grown in the U.S. It is an excellent general purpose hop with well-balanced bittering potential and aroma properties. The storage stability of its alpha acids is among the best in the world.	5.5-8.5%	4.5-5.5%	1,700 - 2,100
<b>Columbia</b>	Columbia enjoyed a small production in the 1980's, but was later discontinued in favor of Willamette. However, when craft brewers discovered the amazing pungent kick of hoppiness combined with its lemon citrus twist, they clamored to have it brought back.	6.8-11.5%	2.9-5.6%	1,200 - 1,500
<b>Comet</b>	Originally bred to address the need for higher alpha hops, Comet's flavor profile rests heavily on a strong accent of grapefruit, along with notes of pineapple. It features solid bitter capabilities, but recently there has been a surge in its use as a dry-hop in ales and IPAs.	9.0-11.0%	4.0-6.0%	1,700-2,000
<b>Crystal</b>	Crystal is a triploid variety bred by the USDA from Hallertau mf, Cascade, Northern Brewer, and Early Green. It is perceived as the most pungent of the triploid Hallertau family, and is considered a Super Aroma hop. It is a versatile variety used in Pilsners and Lagers, as well as in ESB's and American and Belgian-style Ales.	3.5 - 4.5%	4.5 - 6.5%	1,200 - 2,000
<b>Eroica</b>	Eroica has a strong sharp fruit aroma...better aroma than many high alpha acid hops. They also provide a very potent yet clean bittering for pale ales, dark ales and stouts	7.3-14.9%	3.0-5.3%	1,800 - 2,200
<b>Fuggle H</b>	This classic English aroma variety has long been grown in both Oregon and Washington. It has a typical English aroma and contributes a balanced bitterness. Fuggle is very suitable for English and American-style Ales.	4-5.5%	1.5 - 2.0%	1,070 - 1,600
<b>Galena</b>	Galena is a high alpha variety that was developed in the Idaho state breeding program in 1978. It has balanced bittering properties combined with an agreeable aroma profile. Galena's storage stability is excellent. It has often used in both English and American-style Ales.	11.5-13.5%	7.2 - 8.7%	1,700 - 2,100
<b>Glacier</b>	Glacier is a dual-purpose hop with well balanced bittering properties and a pleasant aroma profile. Aroma descriptors include citrusy sweet fruit with wood and herbal notes. It was released in 2000 from the Washington State Univ breeding pro-gram. It is commonly used in Pale Ale, ESB, Bitter, English-Style Pale Ale, Porter, and Stout.	5%	8.20%	2,400 - 2,600

<b>Variety</b>	<b>Description</b>	<b>Alpha Acids</b>	<b>Beta Acids</b>	<b>Yield (lbs/Acre)</b>
<b>Hallertau mf</b>	Hallertau mf (mittelfrueh) is an aroma-type cultivar which originated in Germany and is a Noble hop: mellow compared to other varieties with a distinct flavor and softness. These varieties exhibit a spicy, herbal or floral aroma and flavor, and distribute a flash of citrus-like zest.	3.5 - 5.5%	3 - 4%	1,150 - 1,600
<b>Horizon</b>	A dual use hop with unique characteristics allows it to swing in many directions for different uses in beer and compares to the noble hop varieties. Horizon will add notes of a floral bouquet to the aroma, as well as provide some essence of citrus fruits.	10.2-16.5%	6.5-8.5%	1,800-2,200
<b>Liberty</b>	Liberty is a triploid Hallertau variety that was bred by USDA. Of the four triploid Hallertau mf varieties released by USDA, Liberty most closely resembles the Hallertau mf cultivar. It is typically used in Lager, Pilsner, Bock, US Wheat, and Kölsch beers.	3 - 5%	3 - 4%	1,000 - 1,700
<b>Magnum</b>	Magnum is a high alpha variety that was developed at the Hop Research Center in Huell, Germany. It is widely grown in the Hallertau region of Germany, and is also grown in the US. Magnum is a good bittering hop for Ales and Lagers.	12 - 14%	4.5 - 6%	1,340 - 1,700
<b>Mt. Hood</b>	Named after the famous Oregon volcano, Mt. Hood is an aroma variety bred from the German Hallertauer variety and released in 1989 from the USDA breeding program in Oregon. It has clear similarities to German Hallertauer, including a clean mild spice/floral aroma with a woody pine tone, and is typically used in Lagers, Pilsners, Bocks, Wheat, Alt, and Helles beers.	4-7%	5 - 8%	1,450 - 1,750
<b>Mt Rainier</b>	A dual purpose hop with noble aromas, Mt Rainier is similar to the classic German Hallertau mf, but features more bittering strength. Aroma descriptors include noble, licorice, citrus, and floral bouquet. It is excellent for both aroma and bittering.	8.0-10.8%	7.6-9.3%	1,800 - 2,000
<b>Newport</b>	A high-alpha hop developed by the USDA breeding program at Oregon State University using Hallertau Magnum as its mother. Newport has excellent yields and is resistant to both powdery and downy mildews.	13.5 - 17%	7.2 - 9.1%	1,990 - 2,550
<b>Northern Brewer</b>	Bred in England, Northern Brewer is a dual purpose hop with moderate alpha and a good aroma profile. A strong fragrant hop with a rich rough-hewn flavor and aroma, this variety has a unique mint-like evergreen flavor.	9 - 10%	3 - 5%	1,600 - 1,800

<b>Variety</b>	<b>Description</b>	<b>Alpha Acids</b>	<b>Beta Acids</b>	<b>Yield (lbs/Acre)</b>
<b>Nugget</b>	Nugget is a high alpha variety released in 1983 from the U.S.D.A. breeding program in Oregon. It is characterized by a mild herbal aroma, a low proportion of cohumulone, and good storage stability. It is used by brewers both for bittering and for its aroma profile. Nugget is one of the most widely grown varieties in Oregon and also has significant acreage in Washington State.	11.5-14%	4.2 - 5.8%	1,800 - 2,200
<b>Olympic</b>	Predominantly genetically derived from Brewer's Gold, Olympics lineage also includes Fuggle, East Kent Golding, Bavarian and an unknown fifth variety. Olympic is a spicy and citrus laden hop.	10.6-13.8%	3.8-6.1%	1,600-2,200
<b>Oregon Cluster</b>	Oregon Cluster's characteristics are similar to Cluster. Growing best in the Oregon Territory. It is an excellent general purpose hop with well-balanced bittering potential and aroma properties. The storage stability of its alpha acids is among the best in the world.	5.5-8.5%	4.5-5.5%	1,700 - 2,100
<b>Perle</b>	Perle was bred from Northern Brewer at the Hop Research Center in Huell, Germany. It is well established in Germany and is also grown in both Oregon and Washington. Perle is a dual purpose variety with moderate alpha levels and a nice floral, slightly spicy aroma profile. It is popular with growers due to its high yields and resistance to downy mildew and wilt.	7-9.5%	4 - 5%	1,160 - 1,600
<b>Pocket Talisman</b>	The dwarf variety Pocket Talisman, once established, produces well on a low trellis. The earthy, floral fruit aroma and flavor profile share some similarities with Cluster	6.00%	3.20%	600
<b>Saaz</b>	This traditional variety from the Czech Republic has a low bittering value like most noble hops. It has a classic noble aroma with a unique peppery flavor that is famously used in Pilsners.	3 - 4.5%	3 - 4.5%	600 - 1,000
<b>Sorachi Ace</b>	This Japanese variety has a bold Lemon aroma and taste with maybe a dill, cilantro, and coconut notes to it too and a slight background oak flavor. Typically used for bittering, but with that focused lemon note it would probably do well when used later or after the boil. Beer Styles: Farmhouse Ales, Saisons, Ipas, Tripels & Witbiers.	13 - 16%	8.8 - 9.9%	1,600 - 1,800

<b>Variety</b>	<b>Description</b>	<b>Alpha Acids</b>	<b>Beta Acids</b>	<b>Yield (lbs/Acre)</b>
<b>Sterling</b>	A Dual-Use hop, Sterling is sometimes dubbed a noble variety. It is compared to Saaz in many ways and brings a choice delicate bitterness. The result is a slightly spicy fragrance with an herbal, floral punch with notes of citrus.	6.0- 9.0%	4.0-6.0%	1,610-1,785
<b>Styrian Golding</b>	Commonly known as Savinjski Golding, it is a result of the clonal selection of Fuggle. Styrian Golding is an aroma hop and exhibits resinous, earthy flavors and has been described as imparting subtle aromas of white pepper to a brew.	2.8%-6%	2-3%	1,000-1,350
<b>Tahoma</b>	Tahoma was released by Washington State University in 2013. Tahoma, the daughter of Glacier, retains the very low cohumulone characteristic of Glacier with somewhat higher alpha acid content. Tahoma has a pleasant aroma with subtle lemon citrus notes.	7.2-8.2%	8.5-9.5%	1,800 - 2,000
<b>Teamaker</b>	Teamaker hops are a unique high beta, low alpha breed that have made their mark, not just in the brewing industry, but in the world of medicine and food as well. Their strong antibiotic properties have been used in herbal teas, an alternative antibiotic in livestock feed, and a bacterial inhibitor in the processing of sugar. They also make a tasty iced tea. Expect floral aromas with no bitterness.	.6-1.8%	5.4-13.2%	1,400-1,700
<b>Tettnanger</b>	Tettnanger is a traditional German landrace variety known for its noble aroma that is pleasant and slightly spicy. It remains well established in the Tettnanger growing region of Germany, and is also grown in Oregon and Washington. American-grown Tettnanger is reported to have slightly higher myrcene levels than its German counterpart.	4-5%	3 - 4%	900 - 1,340
<b>Triple Pearl</b>	Triple Pearl is a triploid daughter of Perle that was released by USDA-ARS in late 2013. Pleasant, mellow aroma with notes of orange-citrus, orange rind/zest, melon, resin, spicy and slight pepper.	10.3 - 11.2%	3.3 - 4.2%	1,600 - 1,650
<b>Ultra</b>	Ultra was bred by USDA from a tetraploid Hallertau mf cultivar and a Saazer-type male diploid genotype. It is a half-sister to Mt. Hood, Liberty, and Crystal. Ultra has a mild and pleasant Saaz-like aroma. It has very low alpha acids compared to most U.S. aroma varieties.	2 - 3.5%	3 - 4.5%	1,600 - 1,800

Variety	Description	Alpha Acids	Beta Acids	Yield (lbs/Acre)
<b>UK Serebrianka</b>	Serebrianka is a Russian aroma hop and imparts some interestingly unique aroma characteristics that include hits of black tea, herbs and even tobacco. It has high humulene and farnesene, which no doubt contributes to its pleasant and largely continental aroma and taste.	3-4%	3.00%	200
<b>Vanguard</b>	Vanguard was the last of the Hallertau varieties to be released from the U.S.D.A. breeding program. It has a reputation of having a very close chemistry and aroma to Hallertau mf. Vanguard is typically used in Lager, Pilsner, Bock, Kölsch, Wheat, Munich, Helles, and Belgian-style Ales.	5.5 - 6%	6 - 7%	1,350 - 1475
<b>Willamette</b>	Willamette was released in 1976 from the USDA breeding program. It is a daughter of the classic English variety, Fuggle, and is characterized by a low alpha content and mild aroma. It imparts a mild, slightly spicy, and pleasant aroma in beer.	4 - 6%	3.5 - 4.5%	1,300 - 1,700
<b>Yakima Gold</b>	Yakima Gold was released by Washington State University in 2013. Yakima Gold, a cross between Early Cluster and a native Slovenian male, is an excellent general purpose hop with smooth bitterness and a pleasant aroma.	8.8 -10.5%	4.3-5.0%	1,800 - 2,000
<b>Zatecki Cerveni</b>	Zatecki Cerveni translates to Saazer Red, or Saaz semi-early red bine. A heartier clone origination from the traditional Saaz plants of the Czech Republic, Zatecki Cerveni displays aromas of spicy, citrus, floral, fruity and a touch of herb.	2.5- 4.0%	4-6%	
<b>Zeus</b>	Zeus is a great dual purpose hop making it ideal for laying the bitter foundation for beers such as Pale Ales, India Pale Ales, Stouts, and is commonly used for late-boil or dry hopping for its herbal, earthy character. The aroma is pleasing and citrus notes may be found in fresh batches. Zeus is so similar to Columbus/Tomahawk that it is often lumped into the name as CTZ.	14 - 16%	4 - 5%	2,500 - 2,900

Data from USA Hops, Hop Growers of America, variety manual. The Hops List. MSU Hop Description List

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