

Hop Descriptions and Some Suggestions

U.S GROWN

Ahtanum (4 – 6.5%) - An aroma/flavoring hop variety that is similar to Cascade or Amarillo. It has a citrus and floral character with the addition of some piney or earth notes. Low alpha acids make Ahtanum a good choice for a flavor addition when you do not want to impart quite the bitterness. Beer styles suited for Ahtanum include American Pale Ale, American IPA and light Lagers.

Amarillo (6.9 – 9%) - Relatively new hop that was discovered as a mutation by a grower. Used for general kettle and aroma. American style Ales.

Brewer's Gold (7 – 8.5%) - A bittering hop that is noted to have a sharp bittering quality and imparts a fruity yet spicy aroma. Brewer's Gold can be used in a wide range of styles from English Ales to German Lagers and adds a decidedly "European" element to the beer. These make a good partner to noble varieties such as Tettnang and Hallertauer.

Cascade (6.3%) - Derived from a cross between Fuggles and the Russian hop Serebrianker. Good for flavor and aroma, but an acceptable bittering hop. Ales and Lagers.

Centennial (9.5 – 11.5%) - Selected from a cross between Brewer's Gold and a selected USDA male. Medium intensity aroma with floral and citrus tones. Very balanced hop, used for all U.S. Ale styles, including U.S. Wheat beer.

Chinook (10 – 14%) - A cross between Petham Golding and USDA Select Male with a mild to medium-heavy, spicy, distinct piney aroma. Strong bittering ability. Used for all American Lagers and Ales.

Citra (11.1%) - A new, moderately-high acid cross between Hallertau Mittelfruh, U.S. Tettnanger, Bavarian, Brewer's Gold and E.K. Golding. Very fruity. Used in Sierra Nevada Torpedo IPA and strong American and Belgian ales

Cluster (7.9%) - Excellent general purpose hop with medium and well-balanced bittering potential and no undesirable aroma properties. Good for dark beers. Used for bittering, good flavor. Light and Dark American Lagers.

Columbus (12.2%) - Relatively new variety becoming increasingly accepted. Used for bittering mainly, good flavor. IPA's, Pale Ales and Stouts.

Fuggle (4.8%) – Traditional aroma hop, appeared in 1875 in England. Also known overseas as Styrian golding. Used for finishing & dry hopping English Ales, esp. Pale Ales, Porters and Stouts.

Galena (12.2%) - Bred from Brewer's Gold by open pollination. Excellent high alpha acid hop with balanced bittering profiles paired with acceptable hop aroma. Very bitter, but blends well with finishing hops. American Ales and Lagers. Suitable for all beer styles.

Glacier (7.4%)– This is an excellent new variety released in 2000. It has balanced bittering properties and a good aroma profile. Glacier is a substitution for Willamette, US Fuggle, US Tettnang and Styrian Golding. Beer styles: Pale Ale, ESB, Bitter, English-Style Pale Ale, Porter, Stout.

U.S. Hallertau (3.5 – 5.5%) - Traditional variety with very mild, slightly flowery and somewhat spicy aroma. Used for Lagers, Pilsners, Bocks, Wheats, Kolsch, Munich Helles, Belgian-Style Ales.

U.S. Kent Golding (4.5%) - Genuine long-established East Kent Golding variety group imported from England. Used for Pale Ales, ESB's and English Style Beers.

Liberty (4.5%) - Released in 1991, aroma variety with close similarities to imported German aroma varieties. Used for finishing. American and German Ales and Lagers.

U.S. Magnum (13.1%) - First super alpha variety grown in Hallertau region. Grown in Yakima Valley, useful for all beer types.

Millenium (15.9%) - Very new, high alpha acid hop with a mild, herbal aroma similar to Nugget. Primarily used for bittering and flavoring. Possible substitutions include Nugget and Columbus, used for Ales, Stouts and Barley Wine.

Mt. Hood (5.2%) - Aroma variety with similarities to the German Hallertau and Hersbrucker varieties, released in the US in 1989. Used for aroma and flavor, American and German Ales/Lagers.

Northern Brewer (8 – 10%) - Bred from a cross between a female hop of wild American parentage and an English male. A true dual-purpose hop, containing moderate amounts of alpha acids combined with a good aroma profile. Used for all English styles, American Ales, Kolsch and Munich Helles.

Nugget (11 – 14.5%) - Selected from a cross between Brewers Gold and a high alpha male. Heavy, herbal and spicy aroma, extremely bitter. Used for medium to dark Ales and Lagers.

Palisade (6.7%) - Palisade is a newer hop variety from the Pacific Northwest bred from the Swiss Tettnanger. It has moderately strong bittering properties with high oil levels and an earthy, apricot-like aroma that's often described as "pretty". Some craft breweries are producing all-Palisade pale ales and IPA's.

U.S. Perle (8.2%) - Derived from English Northern Brewer, new to the U.S. industry. Minty bittering and good "green hop" aromas. All non-Pilsner Lagers and Wheats.

U.S. Saaz (5.8%) - U.S. equivalent of the Czech variety, but lacks some of the fineness of aroma. Used for finishing, very flavorful. Pilsners, Continental Lagers and Wheats.

Simcoe® (11.9%) - A dual-purpose, unique American hybrid. Although it is primarily a bittering hop, it has a clean, pine-like aroma and flavoring with a slight hint of citrus. It is less astringent than other pine-like hops and has been highly sought after to make distinctive and unique Pale Ales like Weyerbacher Double Simcoe® IPA. The flavor is believed superior due to low cohumulone levels.

U.S. Spalt (2.6%) - Medium intensity and pleasant hoppy qualities. Medium-strong aroma with wild American tones. Best substitutions are for Tettnanger and Saaz. Beer styles: German Lagers. **Not Available.**

Sterling (6.0%) – Released in 1998, Sterling has an aroma that is herbal and spicy with a hint of citrus. Perceived to be similar to Saaz and Mt Hood. Best substitution is for Czech Saaz. Beer Styles: Pilsner, other Lagers, Belgian-Style Ales.

Tettnang (4 – 5%) - Commercially grown in the U.S. since the 1980's. Similar to Fuggle. A very popular hop with the craft-brewery industry. Used for Lagers, U.S. Ales, Pilsners, U.S. Wheats and Bitters.

Vanguard (4.4%) – A hybrid pedigree derived from a Hallertau Mittlefruh accession. It is increasingly more common in the craft beer industry. Vanguard is a substitution for Hallertau, Hersbrucker, Mt Hood and Liberty. Beer Styles: Lager, Pilsner, Bock, Kolsch, Wheat, Munich Helles.

Warrior (15 - 17%) - A general-purpose bittering hop that offers a neutral, clean bittering primarily in ale styles. Alpha acids are in the range of 15% to 17%. It has a relative low cohumulone content which contributes to a smooth, pleasing bitterness. This is a relatively new variety that has gained popularity in hoppy American Ales.

Willamette (4.6%) - A quality aroma hop with a smooth soft flavor. Can be used for ales and lagers. Used for finishing, dry hopping. American and British Ales.

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Belgian Admiral (Organic, 13.5%) - Admiral offers both high alpha acid for bittering and a strong hoppy aroma. The aroma is an astonishingly strong fruity and sweet aroma perfect for hoppy ales. Admiral gives a citrusy sweet flavor with hints of apricot and orange to most brews which is well suited to hoppy beers especially IPA. This is the hop to use for beers wanting a strong hop nose and a well rounded bitterness. Very good in recipes calling for Amarillo, Cascade, Centennial, Challenger, or Chinook.

Argentine Cascade (3.2%) - These are NOT Cascades! Through translation the name is the same but they are not to be used as an alternative for U.S. Cascade. That being said, these are perfectly fine aroma hops. What we know so far is they are versatile but more of an aroma or finishing hop and can be adequately substituted for Tettnang or Spalt.

NZ Cascade (Organic, 8.6%) - 8% Avg. Alpha. A relatively new addition to the world's selection of organic hops. The New Zealand Cascade hops retain the dominant characteristics of this extremely popular hop, but the the quality of product is first rate and in keeping with the high standards that the New Zealand growers have become known for. This is a fresh, very aromatic hop that is popular in American style ales as well as English and Australian Ales. Excellent for dry hopping. Bred from Cascade rootstock hybridized with organic New Zealand stock. A good substitute for American Cascade, Centennial, Amarillo, or Columbus.

GR Hallertau (3.5 – 5.5%) - Traditionally a superior German aroma hop. Excellent flavor. Mild to semi-strong aroma, versatile bittering and finishing. Used for Wheats, Altbiers, Pilsners, Belgian Ales, American and German Lagers.

GR Hersbrucker (3 – 5.5%) - Traditional German landrace variety selected in the Hersbruck area. Good to very good aroma hop. Used for Lagers, Pilsners, Bocks, Weizen Bocks, Wheats, Belgian-Style Ales, Kolsch and Munich Helles.

UK Kent Golding (4.8%) - Traditional Old English hop. Developed by clonal selection from 1790 on starting from Canterbury Whitebine. Classic English ale hop used for kettle hopping and dry hopping. All English Style Ales, ESB's and Bitters. **Not available.**

GR Opal (Organic, 6.6%) - This is a new German hop from the German research center Hüll that exhibits excellent aroma characteristics combined with a respectable alpha acid level. Opal is a European jewel which has a sweet spice, slightly peppery aroma and flavor combined with a light clean citrus fruit aroma. Will do well in German wheat beers, summer ales, Helles, light European lagers, light ales, Saisons, and Belgian ales. A good substitute for East Kent Goldings, Styrian Goldings, or Tettnanger.

NZ Pacific Gem (Organic, 16%) - New Zealand is an excellent place to grow organic hops because none of the usual hop diseases and pests such as downy mildew. One of the methods employed by New Zealand organic hop farmers to reduce pest damage is to send sheep into the hop row to defoliate the lower branches. This also provides a source of fertilizer for the plants. Pacific Gem is a very high alpha hop with a pleasant citrus aroma good for bitters and dark beers. Some brewers have reported that Pacific Gem provides a subtle "blackberry" flavor/taste, which is a popular characteristic for English bitters and stouts. With its good clean bittering character, Pacific Gem is a good substitute for Magnum, Millenium, Nugget, or Columbus hops.

NZ Pacific Jade (13.3%) - Suited for use as a bittering or flavoring hop with a bold aroma that delivers a herbal infusion of fresh citrus and crushed black pepper. Used as a finishing hop to temper malt sweetness in Ales or to balance dryer Lager styles when used as an "up-front" kettle addition to showcase its bittering qualities.

GR Perle (5.7%) - Bred at the Hull Hop Research Institute from the English Northern Brewer variety. Used for Pale Ales, Porters, Lagers. **Not available.**

Czech Saaz (3.6%) - Classical noble aroma hop with long and strong traditions. Associated with the renowned Pilsener Lager. Used for finishing. Bohemian-style Beers, Continental Lagers, Wheats, Pilsner Lagers.

GR Saphir (Organic, 4.4%) - This is a relatively unknown but up and coming new breed of hop that is starting to replace the Hallertaur Mittlefrueh variety which has become more and more susceptible to disease and pests. Shares many of the Hallertaur Mittlefrueh characteristics and with a low alpha acid content is very well suited as an aroma hop for the finest European style lagers. The Saphir is a true jewel in the noble hop family and has a refined aroma and a mild flavor. This hop is distinguished by a sweet and clean citrus aroma that has a hint of tangerine. Try this in your finest German lagers, Pilsners, Belgian White, or even an English mild ale.

GR Spalt Select (2.0%) – Select was bred from Hallertau Mittlefrueh and Spalt to be part of the Spalt/Tettnang/Saaz group. It has a very fine Spalter type aroma. Select can be substituted for US Saaz, US Tettnang, German Spalt, German Tettnang and German Hersbrucker. Beer Styles: any beer where noble aroma is wanted.

FR Strisselspalt (2.6%) – This is a major aroma hop from the Alsace area in France. The aroma has a medium intensity, pleasant and hoppy. It is a good to very good aroma hop that can be substituted for Mt Hood, Crystal or Hersbruck. Beer Styles: Pilsner, Lager, Wheat.

Slovenian Styrian Goldings (3.5%) - A world-renowned aroma hop with widespread usage in both ale and lager brewing. Used for English-Style Ales, ESB, Bitter, and Lagers.

UK Target (8.0%) - Widely used for high alpha acid content combined with an acceptable aroma. Used for British Ales and Lagers. **Not available.**

Gr. Tettnang (5.0%) - Traditional German variety developed in the area of the same name. Very fine or noble aroma hop. Used for German Lagers, Wheat, Ales and American Lagers.

GR Tradition (5.8%) – Tradition is a close descendent of Hallertau Mittlefrueh with a very fine aroma similar to Hallertau. Good substitution for Liberty and Hallertau.