

Hop Variety Characteristic Chart By Northwest Hops

Varieties	Cascade	Centennial	Fuggle	Golding	Liberty	Mount Hood	Newport	Nugget	Perle	Santiam	Willamette
Climate It Grows Best In	All Climates	All Climates	Great in damp climates, suffers a little in hot climates	Mild, moist climates, does ok in hot climates	Mild climates, but can grow in hot climates.	All Climates	All Climates	All Climates	Does not like hot weather	All Climates	All Climates
Growth Habit	Good to Excellent	Good and Neat	Neat and Manageable	Average	Columnar and quite vigorous	Fairly vigorous but manageable	Good	Good	Good	Very Good	Good, vigorous but manageable
Aroma	Aroma Delightful spicy, flowery, citrus	Dual Purpose Bittering Hop with some floral and citrus flavors	Dual Purpose Bittering Hop with some floral and citrus flavors	Aroma Delightful spicy, flowery, citrus, fragrant	Aroma Mild and pleasant, some spicy character	Aroma Mild, pleasant and clean, a little pungent	High Alpha Mild, fairly pungent	High Alpha Heavy, high alpha acid hop	Dual Purpose Pleasant and slightly spicy	Aroma Excellent herbal, noble hop notes	Aroma Mild and pleasant with some spice
Alpha Acids	4.5 - 7.0% w/w	9.5 - 11.5% w/w	4.0 - 5.5% w/w	4.0-5.5% w/w	3.0-5.0% w/w	5.0-8.0% w/w	13.5-17% w/w	12.0 - 14.0% w/w	7-9.5% w/w	5.5-7% w/w	4.5 - 7.0% w/w
Storage	Fair 48-52%	Good 60-65%	Good 60-65%	Great 65-80%	Fair 35-55%	Good 60-65%	Good 60%	Excellent 70-80%	Excellent 80-85%	Fair 40-50%	Good 60-65%
Disease	Partially tolerant to verticillium wilt, good resistance to powdery mildew	Some what resistant to powdery mildew and verticillium wilt	Vulnerable to powdery mildew, resistant to downy mildew	Vulnerable to powdery and downy mildew, sensitive to wilt	Susceptibility Moderately resistant to downy mildew.	Moderately resistant to downy mildew	Resistant to powdery and downy mildew	Some what resistant to powdery mildew and downy mildew	Tolerant to prunus necrotic ring-spot virus infection. Fairly resistant to downy and powdery mildew.	Moderately resistant to downy mildew	Fair resistance to powdery and downy mildew but can be vulnerable to verticillium wilt
Substitutions	Centennial	Cascade	Willamette	Kent Golding	US or German Hallertau, German Tradition, Mt Hood	Crystal, French Strisselspalt, Hersbrucker	Galena, Nugget, Fuggle, Magnum, Brewer's Gold	Columbus, Chinook	German Perle, German and US Northern Brewer	German Tattnang, German Spalt, German Spalter select	Fuggle
Maturity	Mid-season	Mid-season	Early	Early - Late	Early - Mid-season	Early - Mid-season	Moderately Late	Mid-season	Early	Early to Mid-Season	Early to Mid-season
Beer Styles	Pale Ale, IPA, Porter, Barley wines	Ale, also used with wheat beer	English Style or American Ales	Kettle hopping, English Ales	Lager, Pilsner, Bock, US Wheat, Kolsch	Lager, Pilsner, Bock, US Wheat, Alt, Munich Helles	Ales, Stout, Barley Wine	Any Ale or Stout	Pale Ale, Porter, Stout, Lager, Weizen, Alt, Barley Wine, Kolsch	Lager, US Ales, Pilsner, Belgian-Styles, Kolsch, Bock	Pale Ale, ESB, Bitter, English style Ales, Porter, Stouts