



Hopunion CBS, LLC

US VANGUARD

Pedigree	From a cross made in 1982 between USDA accessions 21285 (a Hallertau mf daughter) and 64037M.
Maturity	Early
Yield	1500 – 1650 kg./ha. or 1350 – 1475 lb./ac.
Growth Habit	Columnar. Good spring growth. The shoots are upright and easy to train. The shoots are light yellow and turn green as they climb the string.
Disease/Pest Susceptibility	Resistance to hop downy mildew similar to that of the cultivars Nugget and Willamette
Pickability/Drying/Baling	Good
Cone-Structure	Small to medium-sized, fairly light.
Lupulin	Light yellow
Aroma	Similar to Hallertau.
Alpha Acids	5.5% - 6% w/w
Beta Acids	6 – 7% w/w
Co-Humulone	14 – 16% of alpha acids
Storageability	75 – 80% alpha acids remaining after 6 months storage at 20° C
Total Oil	.9 – 1.2 mls/100 grams
Myrcene	20 – 25% of whole oil
Humulene	45 – 50% of whole oil
Caryophyllene	12 – 14% of whole oil
Farnesene	<1% of whole oil
General Trade Perception	Still being tested and looked at by micro & craft breweries.
Possible Substitutions	Hallertau, German Hersbrucker, Mt Hood, Liberty
Typical Beer Styles	Lager, Pilsner, Bock, Kölsch, Wheat, Munich Helles, Belgian-Style Ales
Additional Information	Similar to Hallertau Mittlefruh
Personal Notes:	