



Crystal

U.S.

Aroma Hop

Crystal is a triploid variety developed from the German aroma hop variety Hallertauer Mittelfrüh with primary contributions from Cascade, Brewer's Gold and Early Green. Released in 1993 from the USDA breeding program, Crystal has become popular in US craft brewing as a triploid Hallertauer.

Pedigree	Half-sister of Mt. Hood and Liberty derived from Hallertau Mittelfrüh and other crosses
Aroma	Mild, spicy and floral
Alpha Acids*	4.0 - 6.0 %
Beta Acids	5.0 - 6.7 %
Cohumulone	20 - 26 % of alpha acids
Total Oil	0.8 - 2.1 ml/100g
Myrcene	40 - 65 % of total oil
Humulene	18 - 24 % of total oil
Caryophyllene	4 - 8 % of total oil
Farnesene	< 1 % of total oil
Storage Stability	Very poor

* Alpha acids are determined by conductometric titration (EBC 7.4) in Europe; by spectrophotometric (ASBC Hops-6) in USA