



# Cluster

U.S.  
Bitter Hop

Cluster is one of the oldest varieties grown in the U.S. The rootstock origin is uncertain. Until the late 1970's, Cluster was one of only a few varieties grown in the U.S. and dominated the growing acreage. Alpha acids content is medium, aroma is strong and storage stability of the alpha acids is among the best in the world. The variety grows with good vigor and cone production.

<b>Pedigree</b>	<b>Unknown but possibly cross between English variety and U.S. male hop</b>
<b>Aroma</b>	<b>Floral and spicy</b>
<b>Alpha Acids*</b>	<b>5.5 - 8.5 %</b>
<b>Beta Acids</b>	<b>4.5 - 5.5 %</b>
<b>Cohumulone</b>	<b>37 - 43 % of alpha acids</b>
<b>Total Oil</b>	<b>0.4 - 0.8 ml/100g</b>
<b>Myrcene</b>	<b>45 - 55 % of total oil</b>
<b>Humulene</b>	<b>15 - 18 % of total oil</b>
<b>Caryophyllene</b>	<b>6 - 7 % of total oil</b>
<b>Farnesene</b>	<b>&lt; 1 % of total oil</b>
<b>Storage Stability</b>	<b>Excellent</b>

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