



# Pioneer

U.K.

## Dual Purpose Hop

Pioneer is a dwarf dual-purpose hop released in 1996 from Wye College in the UK. It has good tolerance to wilt, but is susceptible to both downy and powdery mildews. Pioneer has an assertive aroma which includes a distinctive hoppy but pleasant lemon and grapefruit notes with some cedar and herbal characters present.

<b>Pedigree</b>	<b>Dwarf variety bred at Wye College in 1996</b>
<b>Aroma</b>	<b>Hoppy with lemon/grapefruit; cedar and herbal</b>
<b>Alpha Acids*</b>	<b>8.5 - 11.4 %</b>
<b>Beta Acids</b>	<b>3.2 - 4.9 %</b>
<b>Cohumulone</b>	<b>33 - 40 % of alpha acids</b>
<b>Total Oil</b>	<b>1.5 - 2.3 ml/100g</b>
<b>Myrcene</b>	<b>28 - 42 % of total oil</b>
<b>Humulene</b>	<b>16 - 24 % of total oil</b>
<b>Caryophyllene</b>	<b>6 - 9 % of total oil</b>
<b>Farnesene</b>	<b>&lt; 1 % of total oil</b>
<b>Storage Stability</b>	<b>Fair to good</b>

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