

# HBC 438

## U.S. EXPERIMENTAL FLAVOR HOP



**HOP BREEDING COMPANY**  
SELECT BOTANICALS GROUP • JOHN I. HAAS INC.



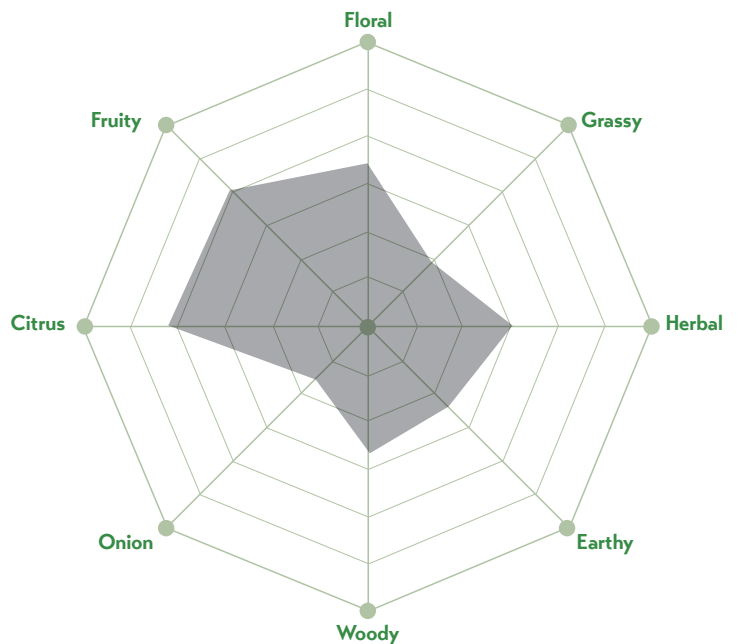
**HAAS**

HBC 438 is an experimental hop variety originating from the open pollination of YCR 123, a cultivar derived from the subspecies *neomexicanus*. It is the sister to the well-known experimental HBC 472 and exhibits many of the same characteristics including a unique coconut aroma. HBC 438 imparts a strong and complex fruit flavor to beer. In a Haas Experimental Brewery brew dry hopped at 2.0 lbs per barrel, the beer aroma was described as mango, coconut, grapefruit, lemon grass, and wood. HBC 438 has shown to brew consistently, delivering its distinct and recognizable flavor every time.

<b>Aroma</b>	Fruity, citrus, coconut
<b>Alpha Acids*</b>	12.0 – 16.0%
<b>Beta Acids</b>	4 – 7%
<b>Cohumulone</b>	20 – 24% of alpha acids
<b>Total Oil</b>	2.5 – 3.0 ml/100g
<b>Myrcene</b>	55 – 65% of total oil
<b>Humulene</b>	8 – 10% of total oil
<b>Caryophyllene</b>	11 – 13% of total oil
<b>Farnesene</b>	< 1% of total oil

\* Alpha acids are determined by spectrophotometric (ASBC Hops-6)

### Sensory Notes From A Beer Dry-Hopped With 2.0 Lbs/Bbl Of HBC 438 Hops



- Highest rated attributes are fruity and citrus.
- Additional descriptors include tropical fruits, grapefruit and coconut.