



# SABRO™ BRAND

## HBC 438

Sabro HBC 438 was released in 2018 by Hop Breeding Company. Sabro is an aroma hop that is notable for its complexity of fruity and citrus flavors. Sabro's pedigree is the result of a unique cross pollination of a female neomexicanus hop. With a robust brewing performance, Sabro proves to be a strongly expressive hop that translates its flavor incredibly well into beer.

### AROMA PROFILE

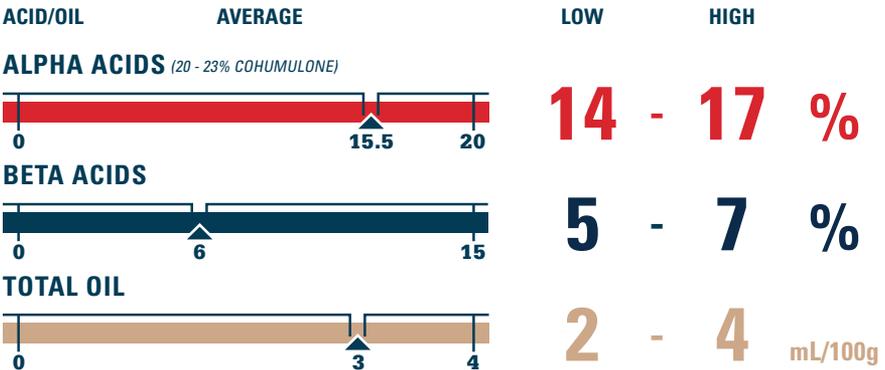
**TROPICAL FRUIT • COCONUT • STONE FRUIT  
CITRUS • HERBAL**

### BEER STYLES

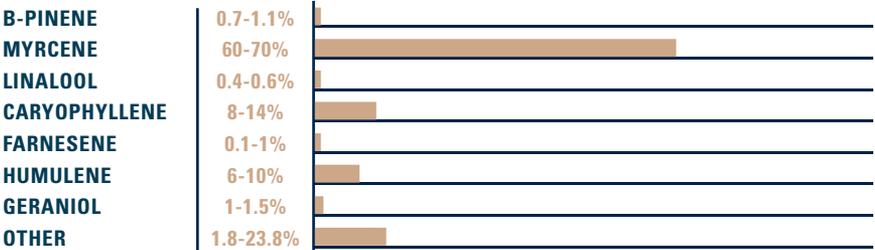
**SAISON • PORTER • STOUT • FRUIT BEER  
AMERICAN PALE ALE • IPA**



### BREWING VALUES

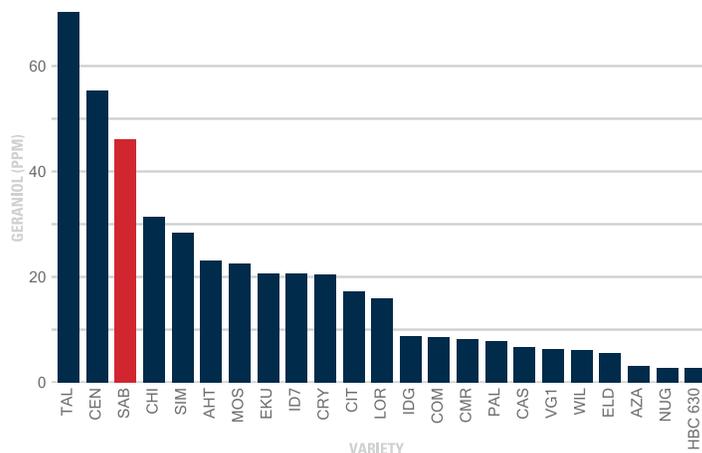


### TOTAL OIL BREAKDOWN (% OF TOTAL OIL)



# A NEW FRONTIER FOR HOP AROMA: SABRO® BRAND HBC 438

## AVERAGE GERANIOL CONTENT (CROP YEAR 2020)



The result of a cross pollination of a female *H. lupulus var. neomexicanus* hop, Sabro® illustrates that with unique genetics comes an entirely new palette of flavors. Enjoy tropical aromas of coconut and pineapple reminiscent of a piña colada, complex woody/cedar notes, and loads of citrus fruit.

From an analytical standpoint, Sabro® exhibits high levels of beer-soluble aroma compounds, suggesting strength as a mid-fermentation dry hop addition. Specifically, Sabro®—along with its daughter, Talus, and the old stand-by, Centennial—ranks head-and-shoulders above all other YCH-grown varieties in concentration of geraniol: a monoterpene alcohol that has been shown to be influential to beer aroma and a key precursor in biotransformation reactions<sup>1</sup>.

An adventurous brewer could successfully utilize Sabro® in a single-hop IPA, and would be delighted by the sheer uniqueness of the resulting brew. However, this hop's true strength lies in its blending capability. Including as little 5-10% in an IPA recipe will boost the citrus and tropical character of Sabro's companion hops, while also lending a subtle coconut flavor. A higher inclusion, between 15-25%, will result in strong neomexicanus flavor influence and will highlight Sabro's characteristic piña colada aroma whilst playing fairly with the brewer's other chosen hops.

For a bold new frontier of hop aroma, explore the potential of Sabro® Brand hops.

### REFERENCES:

1. Takoi, K., Koie, K., Itoga, Y., Katayama, Y., Shimase, M., Nakayama, Y., & Watari, J. (2010). Biotransformation of Hop-Derived Monoterpene Alcohols by Lager Yeast and Their Contribution to the Flavor of Hopped Beer. *J. Agric. Food Chem.*, 58, 5050–5058. DOI:10.1021/jf1000524



**YAKIMA CHIEF HOPS®**