PALISADE® BRAND
YCR 4

Developed by Yakima Chief Ranches, Palisade YCR 4 is known for its high yield and unique aroma profile. With moderate alpha acid, Palisade borders on being a dual purpose hop, however, more complex characteristics are seen in later additions.
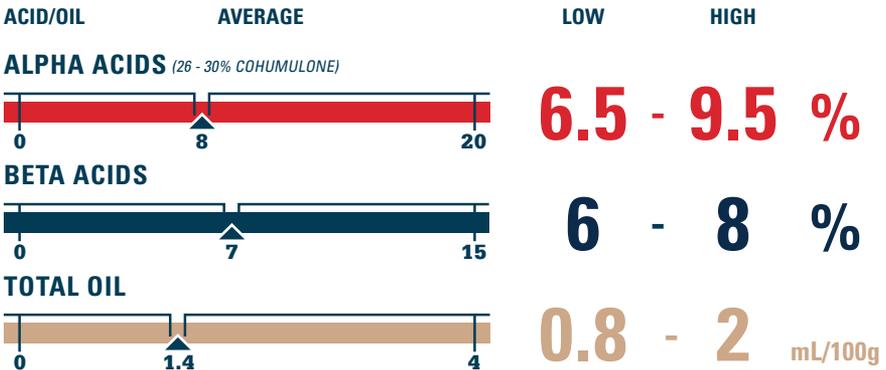
AROMA PROFILE
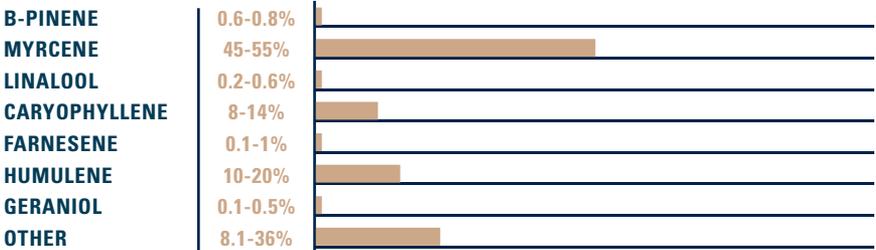**CITRUS • HERBAL • WOOD • STONE FRUIT FLORAL**

BEER STYLES
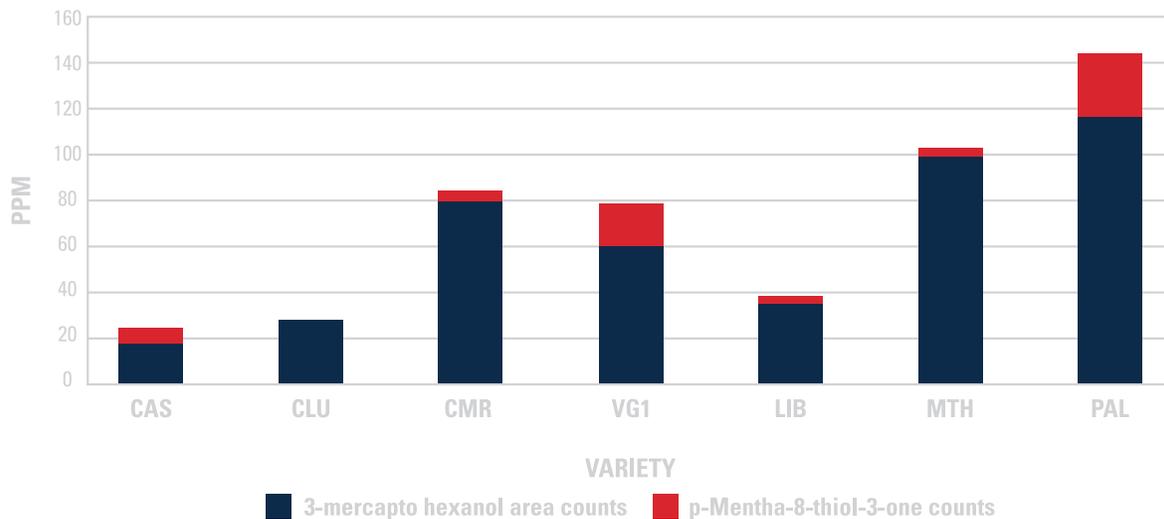**ENGLISH STYLE ALE • LAGER AMERICAN STYLE ALE**

BREWING VALUES

ACID/OIL	AVERAGE	LOW	HIGH

ALPHA ACIDS *(26 - 30% COHUMULONE)*

0   8   20

6.5 - 9.5 %

BETA ACIDS

0   7   15

6 - 8 %

TOTAL OIL

0   1.4   4

0.8 - 2 mL/100g

TOTAL OIL BREAKDOWN *(% OF TOTAL OIL)*

Component	Range
B-PINENE	0.6-0.8%
MYRCENE	45-55%
LINALOOL	0.2-0.6%
CARYOPHYLLENE	8-14%
FARNESENE	0.1-1%
HUMULENE	10-20%
GERANIOL	0.1-0.5%
OTHER	8.1-36%

THE "GO-TO" BREWER'S WORKHORSE:
PALISADE® BRAND YCR 4

SELECT POLYFUCTIONAL THIOL CONCENTRATIONS
(AMERICAN-GROWN VARIETIES WITH AVG. AA% BETWEEN 5-10%)

Chart legend:
- ■ 3-mercapto hexanol area counts
- ■ p-Mentha-8-thiol-3-one counts

X-axis (VARIETY): CAS, CLU, CMR, VG1, LIB, MTH, PAL
Y-axis (PPM): 0–160

Among specialized varieties whose purpose is to deliver bold, novel aromas it is often possible to ignore standout cultivars that offer versatility and performance in all areas of the brewing process. At the top of this list is **Palisade® YCR 4**. Released for commercial cultivation by the Yakima Chief Ranches breeding program in 2003, **Palisade®** is a stalwart variety that provides good disease resistance and exceptional yields, making it a very agronomically sound hop.

In the brewery, **Palisade®** provides versatility and high performance in almost any hop usage scenario. Moderate alpha acid and cohumulone levels make it a great bittering hop for both American and continental-style production. A diverse array of beer-soluble aroma compounds allow **Palisade®** to shine as both a late hot-side and dry hop variety. In particular, when compared with varieties of similar alpha acid levels, it shows elevated levels of **3-mercaptohexanol (3MH)** and **p-mentha-8-thiol-3-one**, a polyfunctional thiol described as "Fruity, berry and tropical with a raspberry, minty nuance[1]" **Palisade®** compliments other varieties, and works well as the backbone of a dynamic hop blend.

Agronomically sound and brewery-ready, **Palisade®** is a go-to hop for any situation!

REFERENCES:
1. http://www.thegoodscentscompany.com/data/rw1005051.html

YAKIMA CHIEF HOPS®