



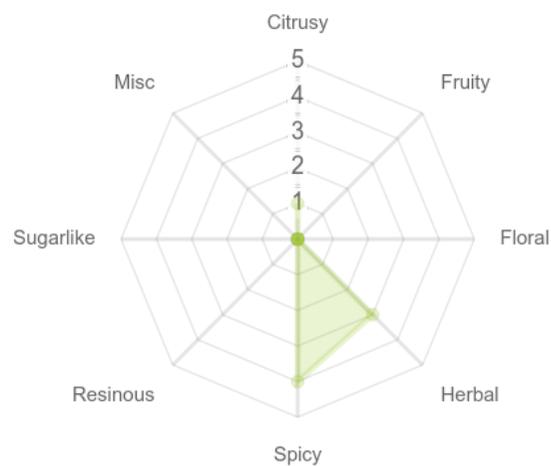
COLUMBUS/ TOMAHAWK

Spicy

Herbal

Genetic Origin: Tomahawk is a bittering hop of recent origin.

AROMA EVALUATION



Rated by the smell of raw hops on a 0 - 5 scale

AROMA DESCRIPTION

Black pepper, onion, light citrus

AGRONOMIC ASPECTS

GROWING

Yield (kg/ ha)	2900 - 3000
Maturity	late
Acreage (ha)	572
Main growing country	United States

RESISTANCE

AGAINST DISEASES

Powdery mildew	susceptible
Aphid	susceptible

INGREDIENTS

BITTER COMPONENTS

Alpha acids %	15.0 - 17.0
Beta acids %	4.5 - 5.0
Co-humulone % rel.	30 - 35

POLYPHENOLS

Xanthohumul %	0.7 - 0.8
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AROMA COMPONENTS

Total oil (ml/100g)	2.5 - 3.5
Linalool % rel. of total oil	0.4 - 0.6
Thiol Impact	medium