

# YAKIMA CHIEF – 2019 HOP & BREW SCHOOL

HOW HOPS HAVE AFFECTED MY CAREER

## I'm Having a Lupulin Threshold Shift



lupulin threshold shift \lu·pu·lin thresh·old shift\ n 1. When a once extraordinarily hoppy beer now seems pedestrian. 2. The phenomenon a person has when craving more bitterness in beer. 3. The long-term exposure to extremely hoppy beers; if excessive or prolonged, a habitual dependence on hops will occur. 4. When a "Double IPA" just is not enough.

Vinnie Cilurzo

Russian River Brewing Company  
Santa Rosa & Windsor, California



# HOPUNION HOP SCHOOL - 2004





# 2004 & 2005 PRESENTATION'S

## For a Complete Lupulin Experience... Drink **HopTime Harvest Ale** 7 Pounds of "wet" Hops Per Barrel of Beer!

"NO RANDALL REQUIRED" Vinnie Cilurzo, Russian River Brewing Company

### "Wet" Hop Brew Guidelines

**WATER:** Same set-up as an IPA

#### MALT BILL

95% 2-Row Malt  
2.50% Caramel 40 Malt  
2.50% Carapils Malt

#### MASH TEMPERATURE

152 degrees Fahrenheit

#### HOP BILL (all hops are wet, not dried)

90 Min. addition 3 pounds per bbl  
30 Min. addition 2 pounds per bbl  
0 Min. addition 3 pounds per bbl  
Dry hop addition 1 pound per bbl

**YEAST:** White Labs Calif. Ale Yeast

HopTime Harvest Ale is brewed with 100% "wet" Russian River hops. Normally, we add from 1/2 pound to 2 pounds of hops per barrel (31 gallons) of beer. With HopTime we added 7 pounds of freshly picked "wet" hops to each barrel of beer.

The exceptional hop aroma and flavor is attributed to the fact that "wet" hops are added to the kettle just hours after being harvested. Distinctive aromatics and flavors from "wet" hops differ from those found in dried hops because the volatile oils in "wet" hops are exactly as they were when hanging on the vine.

O.G. 1.062 6.75% Alc. by Vol. 58 BU'S

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**Hop Harvest & Brew: August 15, 2004**  
**23 Days From Vine to Glass!**



Meticulously brewed by Russian River Brewing Company  
725 4th St. Santa Rosa, California 95404  
www.russianriverbrewing.com 1.888.950.BEER



## Dry Hopping: Quantity, Time, Temperature & Mixing

By Vinnie Cilurzo

Brewer/Owner, Russian River Brewing Company  
vcilurzo@russianriverbrewing.com



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### Popular American Dry Hop Varieties

\*\* New cultivars that seem to have year to year variability & availability

Variety	Description
Cascade	Geraniums, Alfalfa, Citrus, Floral
Centennial	Juicy Fruit, Trix, Fruity, Citrus
Columbus (Tomahawk, Zeus)	"Dank", Onion, Garlic, Spicy
Chinook	Piney, Peppery, Spruce
Simcoe **	Pineapple, Grapefruit, "Grungy"
Amarillo **	Apricot, Peach, Fruity
Ahtanum **	Citrus, Resiny, Fruity
Crystal	Spicy, Peppery, Grapefruit, Fruity

A BIG thank you to Matt Bryllson from Firestone Walker Brewing Company, Paso Robles, CA for compiling the above information

### DRY HOP PROCEDURE - THINGS TO CONSIDER

- Yeast** How much, if any, yeast has been removed before dry hopping?
- Quantity** 1/4 lb. to 1 lb. (or more?) per bbl, consider a 2nd dry hop addition. Pellets vs. flowers?
- Time** 5 - 14 day dry hop period, would you consider a longer period if it were an extreme beer?
- Temperature** Consider dry hopping at a warmer temperature to extract more from hops.
- Tank Shape** A conical tank or a dish bottom tank will give you a vastly different dry hop character due to the beer to hop contact ratio at the bottom of the tank.
- Mixing** If dry hop is a conical tank, consider pumping or using a Co2 push to get the hops back in suspension. Will you lose aroma if you vent the tank on a Co2 push?

Pliny the Elder Sample # 1 (No Dry Hop)

Pliny the Elder Sample # 2 (7 Day Dry Hop)

Pliny the Elder Sample # 3 (14 Day Dry Hop)

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# HOPUNION HOP SCHOOL - 2004





# A Short Exercise in Hop History in the United States

Can I please get all of  
the H&BS attendees to  
stand up?



# Sabro was released in 2018

Please stay standing if you  
were brewing before Sabro  
was released



If not, please sit down



# Mosaic was released in 2012

Please stay standing if you  
were brewing before Mosaic  
was released



If not, please sit down



# Citra was released in 2008

Please stay standing if you  
were brewing before Citra  
was released



If not, please sit down





# Simcoe & Warrior was released in 2000

Please stay standing if you  
were brewing before Simcoe  
& Warrior were released



If not, please sit down



# Ahtanum was released in 1997

Please stay standing if you  
were brewing before  
Ahtanum was released



If not, please sit down



# Crystal was released in 1993

Please stay standing if you  
were brewing before Crystal  
was released



If not, please sit down





**Centennial & Tomahawk were released in 1990**

Please stay standing if you were  
brewing before Centennial &  
Tomahawk (CTZ) was released



If not, please sit down



# Blind Pig Brewing Company - June 1994





# Russian River Brewing Company opened at Korbel Champagne Cellars in 1997





# RUSSIAN RIVER – HOP 2 IT



## Single Hop Beer to Test New Hops

Same malt bill from batch to batch  
Same yeast from batch to batch  
Same water profile from batch to batch

- Different hop variety for each batch
  - First hop addition quantity is adjust to match BU's
  - Middle hop addition is the same quantity from batch to batch
  - Whirlpool hop addition is the same quantity from batch to batch
  - Dry hop quantity is also the same from batch to batch



# Russian River Brewing Company reopens in Downtown Santa Rosa – April 2004





# DINNER AT THE PERRAULT'S





# RUSSIAN RIVER - WINDSOR



# RUSSIAN RIVER - WINDSOR



# RUSSIAN RIVER - WINDSOR





# RUSSIAN RIVER - WINDSOR





# RUSSIAN RIVER - WINDSOR



# RUSSIAN RIVER - WINDSOR

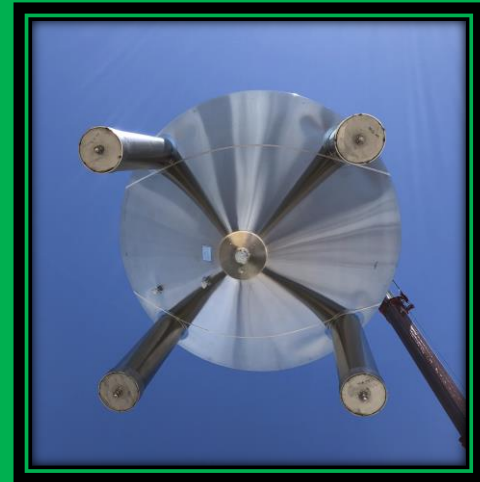




# RUSSIAN RIVER - WINDSOR



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# RUSSIAN RIVER - WINDSOR



# RRBC – OPEN TOP FERMENTER





# RRBC - LAB PROGRAM



# RUSSIAN RIVER - WINDSOR





# RUSSIAN RIVER - WINDSOR





# HOP SELECTION AT YAKIMA CHIEF



# SANTA ROSA, CA CONNECTION TO THE HOP INDUSTRY



# HOPS & FRIENDS





# THANK YOU



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