



HOP CERTIFICATE OF ANALYSIS

Customer : Wisconsin Hop Exchange

Sample ID: 21TRPWI04-01LH



Variety: Triple Perle

Certifying Officer: Zach Lilla - Lab Manager

Date : 11/5/2021

TTB Certified Chemist - Member AOAC - ASBC - BJCP

Method			
Hops-4C	Moisture Analysis	% Moisture	9.2
		% Dry Matter	90.8
AAR	Xanthohumol by HPLC		NT mg/g
Hops-12	Hop Storage Index	HSI	0.304
Hops-13	Essential Oil by Steam Distillation	mL/100g	1.19
Hops-14	Alpha and Beta Acids by HPLC	Cohumulone	24.4 (% of Total AA)
ICE-3		% Alpha Acids	8.37
		Colupulone	53.2 (% of Total BA)
		% Beta Acids	2.94
		a/b ratio	2.85
Hops-17	Hop Essential Oil by GC-FID (as is)		
		% area	mg/100g
		B-Pinene	NT NT
		Myrcene	NT NT
		Linalool	NT NT
		Caryophyllene	NT NT
		Farnesene	NT NT
		Humulene	NT NT
		Geraniol	NT NT

NT=NOT TESTED

Signed: 
 Zachary Lilla - Lab Manager - TTB Certified Chemist





HOP QUALITY REPORT

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% Moisture	<input type="text" value="9.2"/>	Typical Range 8 - 12%	<input type="text" value="✓"/>
Total Oil ml/100g @ 10%	<input type="text" value="1.17"/>	1.1 - 1.8 mL	<input type="text" value="✓"/>
cohumulone	<input type="text" value="24.4"/>	20 - 25%	<input type="text" value="✓"/>
Alpha Acids @ 10%	<input type="text" value="8.29"/>	9.0 - 11.5%	<input type="text" value="↓"/>
Beta Acids @ 10%	<input type="text" value="2.91"/>	3.3 - 4.2%	<input type="text" value="↓"/>
AROMA QUALITY (AQ)			
	% Area		
B-Pinene	<input type="text" value="NT"/>	0.40 - 1.00 %	<input type="text" value="NT"/>
Myrcene	<input type="text" value="NT"/>	40.00 - 55.00%	<input type="text" value="NT"/>
Linalool	<input type="text" value="NT"/>	0.50 - 1.00 %	<input type="text" value="NT"/>
Caryophyllene	<input type="text" value="NT"/>	3.00 - 5.00 %	<input type="text" value="NT"/>
Farnesene	<input type="text" value="NT"/>	0.01 - 1.00 %	<input type="text" value="NT"/>
Humulene	<input type="text" value="NT"/>	7.00 - 11.00 %	<input type="text" value="NT"/>
Geraniol	<input type="text" value="NT"/>	0.40 - 1.00 %	<input type="text" value="NT"/>
	mg/mL		
B-Pinene	<input type="text" value="NT"/>	4 - 10	<input type="text" value="NT"/>
Myrcene	<input type="text" value="NT"/>	400 - 550	<input type="text" value="NT"/>
Linalool	<input type="text" value="NT"/>	5 - 10	<input type="text" value="NT"/>
Caryophyllene	<input type="text" value="NT"/>	30 - 50	<input type="text" value="NT"/>
Farnesene	<input type="text" value="NT"/>	0.1 - 10	<input type="text" value="NT"/>
Humulene	<input type="text" value="NT"/>	70 - 110	<input type="text" value="NT"/>
Geraniol	<input type="text" value="NT"/>	4 - 10	<input type="text" value="NT"/>
	mg/100g @ 10% Moisture		
B-Pinene	<input type="text" value="NT"/>	4.4 - 18	<input type="text" value="NT"/>
Myrcene	<input type="text" value="NT"/>	440 - 990	<input type="text" value="NT"/>
Linalool	<input type="text" value="NT"/>	5.5 - 18	<input type="text" value="NT"/>
Caryophyllene	<input type="text" value="NT"/>	33 - 90	<input type="text" value="NT"/>
Farnesene	<input type="text" value="NT"/>	0.11 - 18	<input type="text" value="NT"/>
Humulene	<input type="text" value="NT"/>	77 - 198	<input type="text" value="NT"/>
Geraniol	<input type="text" value="NT"/>	4.4 - 18	<input type="text" value="NT"/>

Signed: 
 Zachary Lilla - Lab Manager - TTB Certified Chemist

