

HOP QUALITY REPORT CERTIFICATE OF ANALYSIS



To: Fine Bine Farms

Sample ID: 24CMR1013-01FB

Variety: Cashmere

Product: T-90 Pellet

Date : 10/17/2024

Certifying Officer: Zach Lilla - Lab Manager
 TTB Certified Chemist - Member AOAC - ASBC - BJCP

<u>Method</u>			
Hops-4C	Moisture Analysis	% Moisture	10.1
		% Dry Matter	89.9
AAR	Xanthohumol by HPLC		NT mg/g
Hops-12	Hop Storage Index	HSI	0.252
Hops-13	Essential Oil by Steam Distillation	mL/100g	1.29
Hops-14	Alpha and Beta Acids by HPLC	Cohumulone	25.2 (% of Total AA)
ICE-3		% Alpha Acids	8.99
		Colupulone	43.8 (% of Total BA)
		% Beta Acids	6.57
		a/b ratio	1.37
Hops-17	Hop Essential Oil by GC-FID (as is)	% area	mg/100g
		B-Pinene	NT
		Myrcene	NT
		Linalool	NT
		Caryophyllene	NT
		Farnesene	NT
		Humulene	NT
		Geraniol	NT

NT=NOT TESTED

Signed:

Zachary Lilla - Lab Manager - TTB Certified Chemist
 AAR LAB - ADVANCED ANALYTICAL RESEARCH
 2517 Advance Rd Ste. A Madison WI 53718



AROMA QUALITY (AQ)

HOP QUALITY REPORT



Customer : Fine Bine Farms

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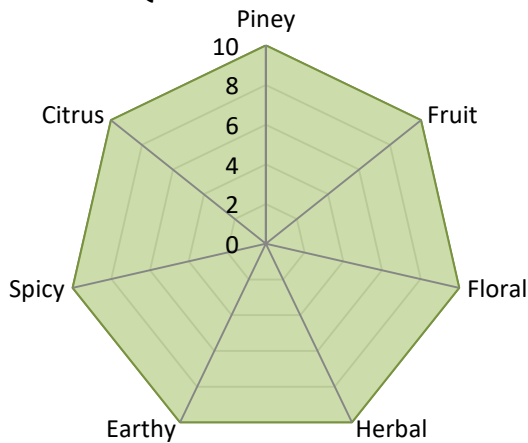
Certifying Officer: Zach Lilla - Lab Manager
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		Typical Range	
% Moisture	10.1	8 - 12 %	<input checked="" type="checkbox"/>
HOP QUALITY (adjusted to 10% moisture)			
Total Oil ml/100g	1.29	1.2 - 1.4 mL	<input checked="" type="checkbox"/>
cohumulone	25.2	22 - 24%	<input type="checkbox"/>
Alpha Acids	9.01	7.7 - 9%	<input type="checkbox"/>
Beta Acids	6.58	6.0 - 7.0%	<input checked="" type="checkbox"/>
Myrcene	NT	38.00 - 44.00 %	<input type="checkbox"/>

AROMA QUALITY (AQ)

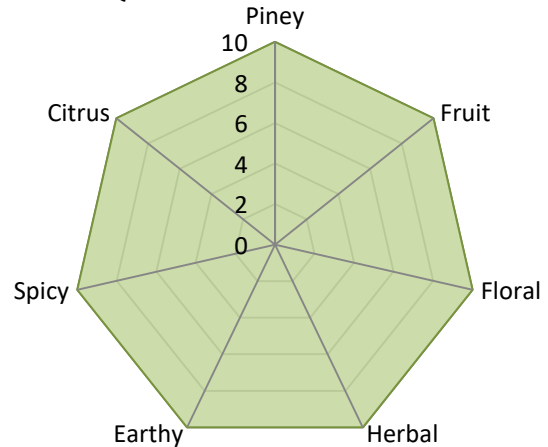
	% Area		mg/mL of Hop Oil		mg/100g of Hops (@10%H2O)	
B-Pinene	NT	0.40 - 1.00 %	NT	4 - 10	NT	4.8 - 14
Myrcene	NT	38.00 - 44.00 %	NT	380 - 440	NT	456 - 616
Linalool	NT	0.50 - 1.00 %	NT	5 - 10	NT	6 - 14
Caryophyllene	NT	11.00 - 14.00 %	NT	110 - 140	NT	132 - 196
Farnesene	NT	0.01 - 1.00 %	NT	0.1 - 10	NT	0.12 - 14
Humulene	NT	26.00 - 29.00 %	NT	260 - 290	NT	312 - 406
Geraniol	NT	0.01 - 1.00 %	NT	0.1 - 10	NT	0.12 - 14

AQ vs VARIETY SPECS



Aroma Intensity= 100

AQ vs ALL HOP VARIETIES



Aroma Intensity= 100

Signed: _____

Zachary Lilla - Lab Manager - TTB Certified Chemist

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