



CERTIFICATE OF ANALYSIS

Lot Number CTZ2023-CLS-1
Variety CTZ
Crop Year 2023
Product Type T90 Hop Pellet
Analysis Date 10/25/23

Measurement Type	Data Value	Analysis Method
Alpha Acids:	13.20%	ASBC Spectrophotometric
Beta Acids:	4.40%	ASBC Spectrophotometric
HSI:	0.254	ASBC Spectrophotometric
B-Pinene:	1.00%	ASBC Hops-17
Caryophyllene:	7.70%	ASBC Hops-17
Humulene:	11.60%	ASBC Hops-17
Linalool:	0.54%	ASBC Hops-17
Myrcene:	45.25%	ASBC Hops-17
Other Oils:	33.91%	ASBC Hops-17
Total Oils:	2.6 ml/100g	ASBC Hops-13

Grower Lot Numbers:

23-WA405-035

Harvest Dates:

9/13/2023

Growing Season

The 2023 growing season began with unusually cold temperatures in April followed by an influx of heat in May and a cooler June, causing early bloom in certain varieties like Centennial. This premature flowering resulted in a mix of mature and juvenile cones, leading to lower-than-expected yields for those varieties. Despite this, affected varieties exhibited average aromas, while unaffected varieties yielded average to above-average with strong aroma quality. July and August in the Yakima Valley were notably milder, presenting near-perfect conditions for the growing season supported by a healthy water supply.

Processed By BSG

Visit www.clsfarms.com or email hops@clsfarms.com for more information.

Analyst: BP

Certified By: *Shane Dale*