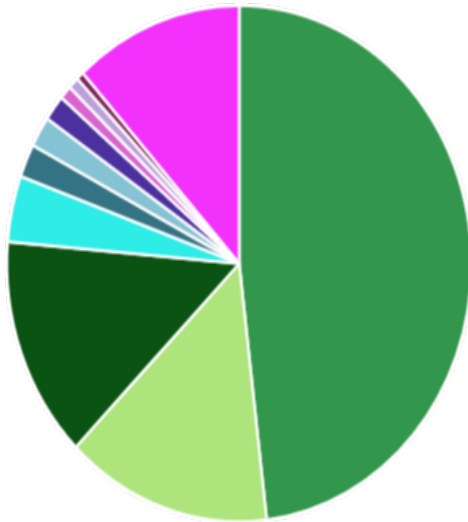




Lot ID:	ZUM-1501-P11	7 %	6.1 %
Variety:	Zumo (ZUM)	Alpha Acids	Beta Acids
Crop Year:	2025	0.25	0.8 %
		HSI	Total Oil

Production Date:	11/06/2025	Beta Acids by HPLC:	5.44 %
Pellet Density (lbs/cu-ft):	33.7	Cohumulone:	33.1 %
Analysis Date:	11/06/2025	Colupulone:	57.9 %
Alpha Acids by HPLC:	7.04 %		

- Myrcene
- Humulene
- Farnesene
- Caryophyllene
- Methyl Heptanoate
- 2-Undecanone
- Geranyl Acetate 2
- Linalool
- b_Pinene
- Methyl Octanoate
- Unidentified



Aroma Compound	% of Total Oil
2-Undecanone	1.89%
a_Pinene	0.07%
b_Pinene	0.73%
b_Ionone	0%
Caryophyllene	4.09%
Caryophyllene Oxide	0.13%
Citral	0.11%
Citronellene	0%
Octanol2	0%
Citronellol	0%
Farnesene	13.72%
Geraniol	0.24%
Geranyl Acetate 1	0.04%
Geranyl Acetate 2	1.6%

Aroma Compound	% of Total Oil
Humulene	14.09%
Limonene	0.14%
Linalool	0.84%
Methyl Heptanoate	2.05%
Methyl Laurate	0.09%
Methyl Octanoate	0.51%
Methyl Thio Hexanoate	0.24%
Myrcene	47.38%
Nerol	0.02%
Nerolidol 1	0.09%
Nerolidol 2	0.12%
Ocimene	0.2%
Terpinolene	0.03%
Unidentified	11.58%

Methods of Analysis

ASBC Hops 6a - α-acids/β-acids by Spectrophotometry
 ASBC Hops 12 - Hop Storage Index (HSI)
 ASBC Hops 13 - Total Oil by Steam Distillation
 ASBC Hops 14 - α-acids/β-acids by HPLC (CoH, CoL)
 ASBC Hops 17 - Hops Essential Oils by GC-FID

Approved by:

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