

### **Hemp Quality Assurance Testing**

### **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 08/02/2020** 

**SAMPLE NAME: Orange Cookies** 

Other

**CULTIVATOR / MANUFACTURER** 

**Business Name:** License Number:

Address:

SAMPLE DETAIL

**Batch Number:** 

Sample ID: 200729Q003

**DISTRIBUTOR** 

Business Name: Eybna License Number:

Address: None CA

Date Collected: 07/29/2020 Date Received: 07/29/2020

Batch Size:

Sample Size: 10.0 Unit(s)

Unit Mass: Serving Size:







Scan QR code to verify authenticity of results.

### **CANNABINOID ANALYSIS - SUMMARY**

**Total THC: Not Detected** 

**Total CBD: Not Detected** 

Sum of Cannabinoids: Not Detected

**Total Cannabinoids: Not Detected** 

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step: Total THC =  $\Delta$ 9THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids =  $\Delta$ 9THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa +  $\Delta$ 8THC + CBL + CBN Total Cannabinoids = (Δ9THC+0.877\*THCa) + (CBD+0.877\*CBDa) +

(CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) +

(CBDV+0.877\*CBDVa) + Δ8THC + CBL + CBN

Moisture: NT

Density: 0.8575 g/mL

Viscosity: NT

#### SAFETY ANALYSIS - SUMMARY

Pesticides: PASS

Heavy Metals: PASS

Foreign Material: NT

Mycotoxins: NT

Microbial Impurities (PCR): NT

Water Activity: NT

Residual Solvents: PASS

Microbial Impurities (Plating): NT

Vitamin E Acetate: NT

### **TERPENOID ANALYSIS - SUMMARY**

35 TESTED, TOP 3 HIGHLIGHTED

Terpinolene 297.81 mg/g

Myrcene 147.18 mg/g

β Caryophyllene 140.10 mg/g

For quality assurance purposes. Not a Pre-Harvest Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written

Sample Certification: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)

pproved by: Josh Wurzer, President ate: 08/02/2020



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ORANGE COOKIES | DATE ISSUED 08/02/2020

# Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP - (1157) Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: Not Detected
Total THC (Δ9THC+0.877\*THCa)

TOTAL CBD: Not Detected
Total CBD (CBD+0.877\*CBDa)

### **TOTAL CANNABINOIDS: Not Detected**

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) +  $\Delta$ 8THC + CBL + CBN

TOTAL CBG: ND
Total CBG (CBG+0.877\*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: ND
Total CBC (CBC+0.877\*CBCa)

TOTAL CBDV: ND

Total CBDV (CBDV+0.877\*CBDVa)

#### **CANNABINOID TEST RESULTS - 07/30/2020**

СОМ	POUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Δ9ΤΗ	С	0.002 / 0.005	N/A	ND	ND
Δ8ΤΗ	С	0.01/0.02	N/A	ND	ND
THCa		0.001/0.002	N/A	ND	ND
THCV		0.002 / 0.008	N/A	ND	ND
THCV	a	0.002 / 0.005	N/A	ND	ND
CBD		0.004 / 0.011	N/A	ND	ND
CBDa		0.001 / 0.003	N/A	ND	ND
CBDV	,	0.002 / 0.007	N/A	ND	ND
CBDV	a	0.001/0.003	N/A	ND	ND
CBG		0.002 / 0.005	N/A	ND	ND
CBGa		0.002 / 0.006	N/A	ND	ND
CBL		0.003/0.008	N/A	ND	ND
CBN		0.001 / 0.004	N/A	ND	ND
СВС		0.003 / 0.010	N/A	ND	ND
CBCa		0.001/0.004	N/A	ND	ND
SUM	OF CANNABI	NOIDS		ND	ND

4	MOISTURE TEST RESULT	DENSITY TEST RESULT	VISCOSITY TEST RESULT
	Not Tested	0.8575 g/mL	Not Tested
		Tested 07/30/2020	
		<b>Method:</b> QSP - (1152) Sample Preparation	







ORANGE COOKIES | DATE ISSUED 08/02/2020





# **Terpenoid Analysis**

Terpene analysis utilizing gas chromatographyflame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

Method: QSP - (1192) Analysis of Terpenoids by GC-FID



### Terpinolene

Also known as  $\delta$ -terpinene, it is of four isomers of the monoterpene Terpinene. It has a fragrance that can be described as fresh, woody, piney, herbal with a hint of lemon. Found in conifers, cumin, apple, rosemary, sage, tea tree, lilac, nutmeg...etc.



### Myrcene

A monoterpene with a fragrance that can be described as peppery, spicy, herbal, floral and woody. Although it has a pleasant odor, it is typically used by the perfume industry as precursor for developing other fragrances. Found in hops, houttuynia, bay, thyme, lemon grass, mango, verbena, cardamom, citrus...etc.



### β Caryophyllene

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB<sub>2</sub> receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

#### TERPENOID TEST RESULTS - 08/02/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Terpinolene	0.03 / 0.09	±20.400	297.81	29.781
Myrcene	0.04 / 0.11	±11.863	147.18	14.718
$\beta$ Caryophyllene	0.02 / 0.07	±6.641	140.10	14.010
Limonene	0.02 / 0.05	±2.495	67.99	6.799
$\alpha$ Humulene	0.02 / 0.05	±1.735	53.55	5.355
β Pinene	0.04 / 0.11	±2.181	28.51	2.851
Linalool	0.03 / 0.08	±1.268	24.47	2.447
α Pinene	0.03 / 0.09	±1.557	23.80	2.380
Terpineol	0.02 / 0.07	±2.464	22.84	2.284
$\alpha$ Phellandrene	0.05 / 0.1	±1.98	18.8	1.88
Fenchol	0.03 / 0.09	±0.700	12.19	1.219
3 Carene	0.04 / 0.1	±0.89	10.7	1.07
α Bisabolol	0.02 / 0.07	±0.473	10.66	1.066
Caryophyllene Oxide	0.04 / 0.11	±0.518	6.95	0.695
$\alpha$ Terpinene	0.04 / 0.1	±0.59	6.5	0.65
$\gamma$ Terpinene	0.04 / 0.1	±0.36	4.4	0.44
Valencene	0.01 / 0.03	±0.030	1.48	0.148
Eucalyptol	0.03 / 0.08	±0.019	0.35	0.035
Camphene	0.04 / 0.11	±0.025	0.33	0.033
Sabinene	0.04 / 0.11	±0.021	0.26	0.026
α Cedrene	0.02 / 0.07	±0.010	0.24	0.024
Guaiol	0.03 / 0.09	±0.005	0.09	0.009
Ocimene	0.03 / 0.09	N/A	ND	ND
Sabinene Hydrate	0.02 / 0.07	N/A	ND	ND
Fenchone	0.04 / 0.12	N/A	ND	ND
(-)-Isopulegol	0.02 / 0.05	N/A	ND	ND
Camphor	0.1 / 0.2	N/A	ND	ND
Isoborneol	0.04 / 0.1	N/A	ND	ND
Borneol	0.1 / 0.2	N/A	ND	ND
Menthol	0.03 / 0.09	N/A	ND	ND
Nerol	0.03 / 0.09	N/A	ND	ND
R-(+)-Pulegone	0.03 / 0.09	N/A	ND	ND
Geraniol	0.02 / 0.07	N/A	ND	ND
Geranyl Acetate	0.02 / 0.06	N/A	ND	ND
Nerolidol	0.3 / 0.8	N/A	ND	ND
Cedrol	0.04 / 0.11	N/A	ND	ND
TOTAL TERPENOIDS			879.20 mg/g	87.92%







ORANGE COOKIES | DATE ISSUED 08/02/2020





# **Pesticide Analysis**

### **CATEGORY 1 AND 2 PESTICIDES**

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). \*GC-MS utilized where indicated.

**Method:** QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS or QSP - (1213) Analysis of Pesticides by GC-MS

### CATEGORY 1 PESTICIDE TEST RESULTS - 07/31/2020 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Aldicarb	0.03 / 0.09	≥LOD	N/A	ND	PASS
Carbofuran	0.01 / 0.04	≥LOD	N/A	ND	PASS
Chlordane*	0.03 / 0.08	≥LOD	N/A	ND	PASS
Chlorfenapyr*	0.03 / 0.10	≥LOD	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Coumaphos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Daminozide	0.03 / 0.10	≥LOD	N/A	ND	PASS
DDVP (Dichlorvos)	0.02 / 0.07	≥LOD	N/A	ND	PASS
Dimethoate	0.02 / 0.07	≥LOD	N/A	ND	PASS
Ethoprop(hos)	0.03 / 0.08	≥LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.05	≥LOD	N/A	ND	PASS
Fenoxycarb	0.02 / 0.06	≥LOD	N/A	ND	PASS
Fipronil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Methiocarb	0.02 / 0.06	≥LOD	N/A	ND	PASS
Methyl parathion	0.03 / 0.10	≥LOD	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥LOD	N/A	ND	PASS
Paclobutrazol	0.02 / 0.05	≥LOD	N/A	ND	PASS
Propoxur	0.02 / 0.06	≥LOD	N/A	ND	PASS
Spiroxamine	0.02 / 0.05	≥LOD	N/A	ND	PASS
Thiacloprid	0.03 / 0.07	≥LOD	N/A	ND	PASS

### CATEGORY 2 PESTICIDE TEST RESULTS - 07/31/2020 PASS

Abamectin	0.03 / 0.10	0.3	N/A	ND	PASS
Acephate	0.01 / 0.04	5	N/A	ND	PASS
Acequinocyl	0.02 / 0.05	4	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	5	N/A	ND	PASS
Azoxystrobin	0.01 / 0.04	40	N/A	ND	PASS
Bifenazate	0.01 / 0.02	5	N/A	ND	PASS
Bifenthrin	0.01/0.02	0.5	N/A	ND	PASS
Boscalid	0.02 / 0.06	10	N/A	ND	PASS
Captan	0.2 / 0.5	5	N/A	ND	PASS
Carbaryl	0.01 / 0.02	0.5	N/A	ND	PASS
Chlorantraniliprole	0.01 / 0.03	40	N/A	ND	PASS

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ORANGE COOKIES | DATE ISSUED 08/02/2020





# **Pesticide Analysis** Continued

### **CATEGORY 1 AND 2 PESTICIDES**

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). \*GC-MS utilized where indicated.

**Method:** QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS or QSP - (1213) Analysis of Pesticides by GC-MS

### CATEGORY 2 PESTICIDE TEST RESULTS - 07/31/2020 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Clofentezine	0.02 / 0.06	0.5	N/A	ND	PASS
Cyfluthrin	0.1 / 0.4	1	N/A	ND	PASS
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon	0.01 / 0.04	0.2	N/A	ND	PASS
Dimethomorph	0.01 / 0.03	20	N/A	ND	PASS
Etoxazole	0.010 / 0.028	1.5	N/A	ND	PASS
Fenhexamid	0.02 / 0.1	10	N/A	ND	PASS
Fenpyroximate	0.03 / 0.08	2	N/A	ND	PASS
Flonicamid	0.01 / 0.04	2	N/A	ND	PASS
Fludioxonil	0.03 / 0.08	30	N/A	ND	PASS
Hexythiazox	0.01 / 0.04	2	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	3	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	1	N/A	ND	PASS
Malathion	0.02 / 0.05	5	N/A	ND	PASS
Metalaxyl	0.02 / 0.06	15	N/A	ND	PASS
Methomyl	0.03 / 0.1	0.1	N/A	ND	PASS
Myclobutanil	0.03 / 0.1	9	N/A	ND	PASS
Naled	0.03 / 0.1	0.5	N/A	ND	PASS
Oxamyl	0.02 / 0.06	0.2	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.2	N/A	ND	PASS
Permethrin	0.03 / 0.09	20	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.2	N/A	ND	PASS
Piperonylbutoxide	0.003 / 0.009	8	N/A	ND	PASS
Prallethrin	0.03 / 0.08	0.4	N/A	ND	PASS
Propiconazole	0.01 / 0.03	20	N/A	ND	PASS
Pyrethrins	0.03 / 0.08	1	N/A	ND	PASS
Pyridaben	0.006 / 0.019	3	N/A	ND	PASS
Spinetoram	0.02 / 0.07	3	N/A	ND	PASS
Spinosad	0.02 / 0.06	3	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	12	N/A	ND	PASS
Spirotetramat	0.01 / 0.02	13	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	2	N/A	ND	PASS
Thiamethoxam	0.03 / 0.08	4.5	N/A	ND	PASS
Trifloxystrobin	0.01 / 0.03	30	N/A	ND	PASS





### **CERTIFICATE OF ANALYSIS**

ORANGE COOKIES | DATE ISSUED 08/02/2020



# **Residual Solvents Analysis**

### **CATEGORY 1 AND 2 RESIDUAL SOLVENTS**

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP - (1204) Analysis of Residual Solvents by GC-MS

### CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 07/31/2020 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Ethylene Oxide	0.1 / 0.4	1	N/A	ND	PASS
Methylene chloride	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS

#### CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS - 07/31/2020 PASS

Acetone	20/50	5000	±25.9	681	PASS
Acetonitrile	2/7	410	N/A	ND	PASS
Butane	10/50	5000	N/A	ND	PASS
Ethanol	20 / 50	5000	N/A	ND	PASS
Ethyl acetate	20/60	5000	N/A	ND	PASS
Ethyl ether	20 / 50	5000	N/A	ND	PASS
Heptane	20/60	5000	N/A	ND	PASS
Hexane	2/5	290	N/A	ND	PASS
Isopropyl Alcohol	10/40	5000	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Methanol	50/200	3000	N/A	ND	PASS
Pentane	20/50	5000	N/A	ND	PASS
Propane	10/20	5000	N/A	ND	PASS
Toluene	7/21	890	±2.8	67	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS



## **Heavy Metals Analysis**

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP - (1160) Analysis of Heavy Metals by ICP-MS

### 

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Cadmium	0.02 / 0.05	0.5	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Arsenic	0.02 / 0.1	1.5	N/A	ND	PASS
Mercury	0.002/0.01	3	N/A	ND	PASS

