

# Hawaiian Choice CBD Independent Lab Report

Markings in RED are by Hawaiian Choice to highlight key findings

## Fruit Jelly

### Test Summary

**Batch 6609**

View any other batch by scanning QR code on the box or visit our website **Manufacturing Date**

**Broad Spectrum**

CBG & CBN also detected in significant levels (beneficial non-psychoactive cannabinoids)

**THC None Detected**

**CBD 24.7 mg/piece**  
- Box 4 pieces = 99mg

**Microbial None Detected**  
Bacteria, spores, molds, fungus

**Steep Hill Hawaii**  
1150 S. KING STREET, HONOLULU, HI 96814  
LICENSE # 92630

**CERTIFICATE OF ANALYSIS**

Sample Name: 6609 Customer: Hawaiian Choice  
Steep Hill ID: HI80102  
Batch ID:  
State ID:  
Sample Type: Edible  
Date Received: 1/16/2020  
Date Reported: 1/24/2020  
Pkg. Mass: 32 g  
# of Servings: 4

**OVERALL BATCH SUMMARY: PASS**

Residual Pesticides	Microbial Impurities	Mycotoxins	Heavy Metals	Moisture	Residual Solvents	Foreign Material
Pass	Pass	Pass	Pass	NT	NT	NT

**Cannabinoid Results – Standard Potency** 1/20/2020  
Standard potency analysis utilizing Ultra High Performance Liquid Chromatography (UHPLC; HI-SOP-024)

Analyte	%	mg/g	mg/pkg	mg/serv	LOD mg/g	LOQ mg/g
CBD	0.309	3.09	99.0	24.7	0.00980	0.0103
CBDA	ND	ND	ND	ND	0.00980	0.0176
CBG	0.00690	0.0690	2.21	0.552	0.00980	0.0113
CBN	0.0147	0.147	4.72	1.18	0.00980	0.00980
THC	ND	ND	ND	ND	0.00980	0.00980
THCA	ND	ND	ND	ND	0.00980	0.0225
Total	0.331	3.31	106	26.5		

**Total THC** 0.309 %  
Not Detected  
**Total CBD** 3.09 mg/g  
Not Detected  
99.0 mg/pkg  
Not Detected  
24.7 mg/serv

Total THC = [THCA x 0.877] + [THC]  
Total CBD = [CBDA x 0.877] + [CBD]

**Cannabinoid Results – Extended Cannabinoids** NT  
Extended cannabinoid analysis utilizing Ultra High Performance Liquid Chromatography (UHPLC; HI-SOP-024)

Analyte	%	mg/g	mg/pkg	mg/serv	LOD mg/g	LOQ mg/g
CBC	NT	NT	NT	NT	NT	NT
CBD	NT	NT	NT	NT	NT	NT
CBDA	NT	NT	NT	NT	NT	NT
CBDV	NT	NT	NT	NT	NT	NT
CBDVA	NT	NT	NT	NT	NT	NT
CBG	NT	NT	NT	NT	NT	NT
CBGA	NT	NT	NT	NT	NT	NT
CBN	NT	NT	NT	NT	NT	NT
THC	NT	NT	NT	NT	NT	NT
Δ8-THC	NT	NT	NT	NT	NT	NT
THCA	NT	NT	NT	NT	NT	NT
THCV	NT	NT	NT	NT	NT	NT
THCVA	NT	NT	NT	NT	NT	NT
Total	NT	NT	NT	NT	NT	NT

Nelson Lazaga, Ph.D  
Laboratory Director  
Date: 1/31/2020

The following results relate only to the samples tested and for the specific tests conducted. Steep Hill grants permission to reproduce this document in full only.

CERTIFICATE #: HI80102  
REVISION #: HI80102.1  
Page 1 of 3

© 2020 STEEP HILL, INC. ALL RIGHTS RESERVED

**Steep Hill Hawaii**  
1150 S. KING STREET, HONOLULU, HI 96814  
LICENSE # 92630

**CERTIFICATE OF ANALYSIS**

**Terpenoid Results - Standard Terpenes** NT  
Standard terpene analysis utilizing Liquid Chromatography – Mass Spectrometry (LC-MS; HI-SOP-024)

Analyte	%	mg/g	LOD mg/g	LOQ mg/g
Caryophyllene Oxide	NT	NT	NT	NT
β-Caryophyllene	NT	NT	NT	NT
Citronellol	NT	NT	NT	NT
α-Humulene	NT	NT	NT	NT
Linalool	NT	NT	NT	NT
β-Myrcene	NT	NT	NT	NT
Total	NT	NT	NT	NT

**Terpenoid Results - Extended Terpenes** NT  
Extended terpene analysis utilizing Gas Chromatography – Mass Spectrometry (GC-MS)

Analyte	%	mg/g	LOD mg/g	LOQ mg/g
α-Bisabolol	NT	NT	NT	NT
Camphene	NT	NT	NT	NT
3-Carene	NT	NT	NT	NT
Caryophyllene Oxide	NT	NT	NT	NT
β-Caryophyllene	NT	NT	NT	NT
Eucalyptol	NT	NT	NT	NT
Geraniol	NT	NT	NT	NT
Guaiol	NT	NT	NT	NT
Humulene	NT	NT	NT	NT
p-Isopropyltoluene	NT	NT	NT	NT
Isopulegol	NT	NT	NT	NT
Limonene	NT	NT	NT	NT
Linalool	NT	NT	NT	NT
β-Myrcene	NT	NT	NT	NT
Nerolidol	NT	NT	NT	NT
Ocimene	NT	NT	NT	NT
α-Pinene	NT	NT	NT	NT
β-Pinene	NT	NT	NT	NT
α-Terpinene	NT	NT	NT	NT
γ-Terpinene	NT	NT	NT	NT
Terpinolene	NT	NT	NT	NT
Total	NT	NT	NT	NT

**Moisture Results** NT  
Moisture content analysis utilizing Moisture Balance (MB; HI-SOP-033) - Limit units: %

Analyte	Pass/Fail	%	Limit
Moisture	NT	NT	NT

**Foreign Material Results** NT  
Foreign material analysis utilizing visual inspection with 10x magnification (HI-SOP-016)

Analyte	Pass/Fail
Visual Inspection	NT

**Microbial Impurities Results** Pass 1/24/2020  
Microbiological screening utilizing PathogenDx and TEMPO (HI-SOP-008 + HI-SOP-007) - Limit units: CFU/g

Analyte	Pass/Fail	Result	Limit	LOQ
Aspergillus flavus	Pass	ND	ND	Not Detected in 1 gram
Aspergillus fumigatus	Pass	ND	ND	Not Detected in 1 gram
Aspergillus niger	Pass	ND	ND	Not Detected in 1 gram
Salmonella	Pass	ND	ND	Not Detected in 1 gram
Aerobic	Pass	<100	10000	1 CFU/g
Coliform	Pass	<100	100	1 CFU/g
Enterobacteria	Pass	<100	100	1 CFU/g
General E. coli	Pass	<1	ND	1 CFU/g
Yeast & Mold	Pass	<100	1000	1 CFU/g

Nelson Lazaga, Ph.D  
Laboratory Director  
Date: 1/31/2020

The following results relate only to the samples tested and for the specific tests conducted. Steep Hill grants permission to reproduce this document in full only.

CERTIFICATE #: HI80102  
REVISION #: HI80102.1  
Page 3 of 3

© 2020 STEEP HILL, INC. ALL RIGHTS RESERVED

LOD: Limit of Detection  
LOQ: Limit of Quantitation  
NT: Not Tested  
ND: Not Detected

# Hawaiian Choice CBD Independent Lab Report

Markings in RED are by Hawaiian Choice to highlight key findings

## Fruit Jelly

**Pesticides** None Detected  
**Mycotoxins** None Detected  
**Heavy Metals** None Detected

**Shelf Life Stability** Pass  
 Low water activity (aW <0.86) and high acidity (pH <4.5) for improved anti-microbial shelf life and stability.



### CERTIFICATE OF ANALYSIS

#### Residual Pesticides Results

Pass

1/20/2020

Residual pesticide analysis utilizing Liquid Chromatography - Mass Spectrometry (LC-MS/MS; HI-SOP-025) - Limit units:  $\mu\text{g/g} = \text{ppm}$

Analyte	Pass/Fail	$\mu\text{g/g}$	Limit	LOD $\mu\text{g/g}$	LOQ $\mu\text{g/g}$	Analyte	Pass/Fail	$\mu\text{g/g}$	Limit	LOD $\mu\text{g/g}$	LOQ $\mu\text{g/g}$
Abamectin B1a	Pass	ND	1	0.249	0.754	Hexythiazox	Pass	ND	1	0.218	0.660
Acephate	Pass	ND	1	0.0711	0.215	Imazalil	Pass	ND	1	0.0487	0.148
Acequinocyl	Pass	ND	1	0.00363	0.980	Imidacloprid	Pass	ND	1	0.0706	0.214
Acelamiprid	Pass	ND	1	0.118	0.357	Kresoxim methyl	Pass	ND	1	0.0667	0.202
Aldicarb	Pass	ND	1	0.0391	0.119	Malathion	Pass	ND	1	0.0610	0.185
Azoxystrobin	Pass	ND	1	0.0906	0.275	Metolachlor	Pass	ND	1	0.0584	0.177
Bifenazate	Pass	ND	1	0.105	0.317	Methidathion	Pass	ND	1	0.0995	0.301
Bifenthrin	Pass	ND	1	0.205	0.621	Methomyl	Pass	ND	1	0.0387	0.117
Boscalid	Pass	ND	1	0.214	0.648	Methyl Parathion	Pass	ND	1	0.148	0.448
Carbaryl	Pass	ND	1	0.0414	0.125	MGK-264	Pass	ND	1	0.194	0.586
Carburethion	Pass	ND	1	0.0290	0.0880	Myclobutanil	Pass	ND	1	0.0599	0.182
Chlorantraniliprole	Pass	ND	1	0.0890	0.270	Naled	Pass	ND	1	0.0552	0.167
Chlorfenapyr	Pass	ND	1	0.0383	0.116	Oxamyl	Pass	ND	1	0.0385	0.117
Chlorpyrifos	Pass	ND	1	0.0874	0.265	Paclbutrazol	Pass	ND	1	0.0390	0.118
Clofentezine	Pass	ND	1	0.165	0.500	Permethrin	Pass	ND	1	0.266	0.805
Cyfluthrin	Pass	ND	1	0.411	0.990	Phosmet	Pass	ND	1	0.138	0.417
Cypermethrin	Pass	ND	1	0.262	0.794	Piperonyl Butoxide	Pass	ND	1	0.0451	0.137
Diazinon	Pass	ND	1	0.0346	0.105	Prallethrin	Pass	ND	1	0.0818	0.248
Dichlorvos	Pass	ND	1	0.176	0.533	Propiconazole	Pass	ND	1	0.0834	0.253
Dimethoate	Pass	ND	1	0.0486	0.147	Propoxur	Pass	ND	1	0.0305	0.0924
Ethoprophos	Pass	ND	1	0.0923	0.280	Pyrethrins	Pass	ND	1	0.0390	0.118
Etofenprox	Pass	ND	1	0.239	0.725	Pyridaben	Pass	ND	1	0.208	0.629
Etoazole	Pass	ND	1	0.0492	0.149	Spinosad	Pass	ND	1	0.0326	0.0989
Fenpyroximate	Pass	ND	1	0.00145	0.00441	Spiromesifen	Pass	ND	1	0.0617	0.187
Fipronil	Pass	ND	1	0.11	0.337	Spirotetramat	Pass	ND	1	0.0524	0.159
Fonicamid	Pass	ND	1	0.0949	0.288	Tebuconazole	Pass	ND	1	0.0796	0.241
Fludioxonil	Pass	ND	1	0.0612	0.186	Thiacloprid	Pass	ND	1	0.0609	0.184

#### Mycotoxin Results

Pass

1/20/2020

Mycotoxin analysis utilizing Liquid Chromatography - Mass Spectrometry (LC-MS; HI-SOP-025) - Limit units:  $\mu\text{g/kg} = \text{ppb}$

Analyte	Pass/Fail	$\mu\text{g/kg}$	Limit	LOD $\mu\text{g/kg}$	LOQ $\mu\text{g/kg}$
Aflatoxin B1	ND		5.09		15.4
Aflatoxin B2	ND		4.66		14.1
Aflatoxin G1	ND		4.83		14.6
Aflatoxin G2	ND		6.99		21.2
Ochratoxin A	Pass	ND	<20	9.01	27.3
Total Aflatoxins	Pass	ND	<20	6.99	21.2

#### Heavy Metals Results

Pass

1/23/2020

Heavy metals analysis utilizing Atomic Absorption Spectroscopy (AAS; HI-SOP-015) - Limit units:  $\mu\text{g/g} = \text{ppm}$

Analyte	Pass/Fail	$\mu\text{g/g}$	Limit	LOD $\mu\text{g/g}$	LOQ $\mu\text{g/g}$
Arsenic	Pass	ND	10	0.00122	1.27
Cadmium	Pass	ND	4	0.0000102	1.27
Lead	Pass	ND	6	0.00148	1.27
Mercury	Pass	ND	2	0.00109	1.27

#### Residual Solvents Results

NT

Residual solvents and processing chemicals analysis utilizing Headspace Gas Chromatography - Mass Spectrometry (HS-GC-MS; HI-SOP-010) - Limit units:  $\mu\text{g/g} = \text{ppm}$

Analyte	Pass/Fail	$\mu\text{g/g}$	Limit	LOD $\mu\text{g/g}$	LOQ $\mu\text{g/g}$	Analyte	Pass/Fail	$\mu\text{g/g}$	Limit	LOD $\mu\text{g/g}$	LOQ $\mu\text{g/g}$
Acetone	NT	NT	NT	NT	NT	Isobutane	NT	NT	NT	NT	NT
Acetonitrile	NT	NT	NT	NT	NT	Isopropanol	NT	NT	NT	NT	NT
Benzene	NT	NT	NT	NT	NT	Methanol	NT	NT	NT	NT	NT
Butanes	NT	NT	NT	NT	NT	n-Pentane	NT	NT	NT	NT	NT
Chloroform	NT	NT	NT	NT	NT	Tetrahydrofuran	NT	NT	NT	NT	NT
Ethanol	NT	NT	NT	NT	NT	Toluene	NT	NT	NT	NT	NT
Heptanes	NT	NT	NT	NT	NT	Total Xylenes	NT	NT	NT	NT	NT
n-Hexane	NT	NT	NT	NT	NT						

Nelson Lazaga, Ph.D.  
 Laboratory Director  
 Date: 1/31/2020

The following results relate only to the samples tested and for the specific tests conducted. Steep Hill grants permission to reproduce this document in full only.

© 2020 STEEP HILL, INC. ALL RIGHTS RESERVED

CERTIFICATE #: HI80102  
 REVISION #: HI80102.1

Page 2 of 3

### FQ Labs

3170 Ualena Street, Unit A  
 Honolulu, HI 96819

Phone: 808-839-9444, Fax: 808-839-9744

Hawaiian Choice  
 P.O. Box 61242  
 Honolulu, HI, 96839  
 Attn:  
 Project Name: 6609

### CERTIFICATE OF ANALYSIS

Received: 01/27/2020 @ 4:20 PM  
 Completed: 01/27/2020 @ 4:40 PM  
 Project Number: 200127-3472-011  
 Temperature: 24.2 °C  
 Client Project No: 6609

Sample ID: 200127-3472-011-01	Food Sample: 13 6609	Sampled: 1/16/2020	Sampler: Jared Dalgamouni			
Analysis	Results	Units	MDL	Test Method	Analyzed	By
Water Activity	0.63	aW	-	AOAC 978.18	01/27/2020 4:22 PM	JA
pH	3.08	pH unit	0.10	AOAC 981.12	01/27/2020 4:25 PM	JL

Approved By: *Janelle D. Owens*  
 Tuesday, January 28, 2020

Page 1 of 1