

# **CERTIFICATE OF ANALYSIS**

DATE ISSUED 11/21/2021 | OVERALL BATCH RESULT: PASS

#### SAMPLE NAME: Cherry Punch 1/2 oz.

Flower, Inhalable

#### **CULTIVATOR / MANUFACTURER**

Business Name: Down Om Farms LLC License Number: CCL20-0000227 Address: 20866 Covert Way North San Juan CA 95960

#### SAMPLE DETAIL

Batch Number: 2666808-231221-951

Sample ID: 211116M007 Source Metrc UID:

1A406030000633F000008330

### **DISTRIBUTOR**

**Business Name: REDWOOD ROOTS** 

DISTRIBUTION, LLC.

License Number: C11-0000711-LIC Address: 6840 BENBOW DR, SUITE B, GARBERVILLE, CA 95542-3604

Date Collected: 11/16/2021 Date Received: 11/17/2021 Batch Size: 4230.0 grams Sample Size: 15.0 grams Unit Mass: 15 grams per Unit

Serving Size:

Sampling Method: QSP 1265 - Sampling of Cannabis and Product Batches











Scan QR code to verify authenticity of results.

## **CANNABINOID ANALYSIS - SUMMARY**

Sum of Cannabinoids: 22.15%

Total Cannabinoids: 19.7%

Total THC: 19.25%

Total CBD: 0.058%

Sum of Cannabinoids =  $\Delta$ 9THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ8THC + 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

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))

CALCULATED USING DRY-WEIGHT

Moisture: 10.7%

#### **TERPENOID ANALYSIS - SUMMARY**

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 2.9842%

 $\beta$  Caryophyllene 9.898 mg/g

Limonene 4.896 mg/g

 $\alpha$  Bisabolol 4.458 mg/g

## SAFETY ANALYSIS - SUMMARY

Pesticides: PASS

Microbiology: PASS

Mycotoxins: PASS

Foreign Material: PASS

Heavy Metals: PASS

Water Activity: PASS

These results relate only to the sample included on this report.

This report shall not be reproduced, except in full, without written approval of the laboratory.

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)

LQC verified by: Reza Naemeh Date: 11/21/2021

roved by: Josh Wurzer, President



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#### **CANNABINOID TEST RESULTS** - 11/17/2021

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD). Calculated using Dry-Weight. **Method:** QSP 1157 - Analysis of Cannabinoids by

**TOTAL CANNABINOIDS: 19.7%** 

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ8THC + CBL + CBN

**TOTAL THC: 19.25%** Total THC (Δ9THC+0.877\*THCa)

TOTAL CBD: 0.058%

Total CBD (CBD+0.877\*CBDa)

**TOTAL CBG: 0.08%** Total CBG (CBG+0.877\*CBGa)

**TOTAL THCV: 0.036%** Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: 0.3%

Total CBC (CBC+0.877\*CBCa)

TOTAL CBDV: ND Total CBDV (CBDV+0.877\*CBDVa)

ND

ND

ND

221.5 mg/g

ND

ND

ND

22.15%

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
THCa	0.04 / 0.24	±7.913	191.61	19.161
Δ9ΤΗС	0.1/0.4	±0.96	24.5	2.45
CBCa	0.1/0.4	±0.27	3.1	0.31
CBGa	0.1/0.4	±0.06	0.9	0.09
CBDa	0.06 / 0.22	±0.028	0.66	0.066
THCVa	0.05 / 0.17	±0.012	0.41	0.041
CBC	0.1/0.2	±0.01	0.3	0.03
CBG	0.2 / 0.5	N/A	<l0q< th=""><th><loq< th=""></loq<></th></l0q<>	<loq< th=""></loq<>
Δ8ΤΗС	0.05 / 0.50	N/A	ND	ND
THCV	0.07 / 0.21	N/A	ND	ND
CBD	0.1 / 0.3	N/A	ND	ND
CBDV	0.1/0.3	N/A	ND	ND

N/A

N/A

N/A

**MEASUREMENT** 

### **UNIT MASS: 15 grams per Unit**

**SUM OF CANNABINOIDS** 

0.02 / 0.22

0.1/0.4

0.07 / 0.20

CBDVa

CBL

CBN

Δ9THC per Unit	367.5 mg/unit
Total THC per Unit	2889.1 mg/unit
CBD per Unit	ND
Total CBD per Unit	8.73 mg/unit
Sum of Cannabinoids per Unit	3322.5 mg/unit
Total Cannabinoids per Unit	2960.2 mg/unit

### MOISTURE TEST RESULT

10.7% Tested 11/17/2021 Method: QSP 1224 -Loss on Drying (Moisture)

#### TERPENOID TEST RESULTS - 11/18/2021

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). Method: QSP 1192 - Analysis of Terpenoids by GC-FID

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β Caryophyllene	0.004 / 0.013	±0.6849	9.898	0.9898
Limonene	0.005 / 0.016	±0.2051	4.896	0.4896
α Bisabolol	0.008 / 0.026	±0.2465	4.458	0.4458
α Humulene	0.009 / 0.031	±0.1894	2.741	0.2741
Myrcene	0.007 / 0.025	±0.0920	2.026	0.2026
α Pinene	0.005 / 0.015	±0.0526	1.143	0.1143
βPinene	0.004 / 0.015	±0.0394	0.950	0.0950
Terpineol	0.014 / 0.046	±0.0623	0.792	0.0792
Fenchol	0.009 / 0.029	±0.0328	0.694	0.0694
Linalool	0.009 / 0.030	±0.0243	0.482	0.0482
$trans\text{-}\beta\text{-}Farnesene$	0.008 / 0.028	±0.0269	0.368	0.0368
Caryophyllene Oxide	0.011/0.038	±0.0261	0.342	0.0342
Nerolidol	0.008 / 0.028	±0.0276	0.272	0.0272
Borneol	0.004 / 0.014	±0.0112	0.186	0.0186
Ocimene	0.015 / 0.034	±0.0060	0.119	0.0119
Camphene	0.004/0.014	±0.0048	0.116	0.0116
Valencene	0.010 / 0.033	±0.0074	0.112	0.0112
Citronellol	0.003 / 0.010	±0.0025	0.070	0.0070
Terpinolene	0.008 / 0.027	±0.0012	0.061	0.0061
Fenchone	0.008 / 0.026	±0.0023	0.047	0.0047
Sabinene Hydrate	0.007 / 0.022	±0.0014	0.030	0.0030
Geraniol	0.002 / 0.007	±0.0018	0.027	0.0027
Nerol	0.003 / 0.011	±0.0005	0.012	0.0012
$\gamma Terpinene$	0.005 / 0.018	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Sabinene	0.004 / 0.014	N/A	ND	ND
$\alpha\text{Phellandrene}$	0.006/0.019	N/A	ND	ND
3 Carene	0.005 / 0.018	N/A	ND	ND
$\alpha$ Terpinene	0.006/0.019	N/A	ND	ND
p-Cymene	0.005 / 0.015	N/A	ND	ND
Eucalyptol	0.005 / 0.018	N/A	ND	ND
(-)-Isopulegol	0.004 / 0.013	N/A	ND	ND
Camphor	0.005 / 0.015	N/A	ND	ND
Isoborneol	0.003 / 0.011	N/A	ND	ND
Menthol	0.008 / 0.025	N/A	ND	ND
R-(+)-Pulegone	0.003 / 0.010	N/A	ND	ND
Geranyl Acetate	0.004 / 0.012	N/A	ND	ND
$\alpha$ Cedrene	0.005 / 0.017	N/A	ND	ND
Guaiol	0.011/0.035	N/A	ND	ND
Cedrol	0.009 / 0.032	N/A	ND	ND
TOTAL TERPEN	IOIDS		29.842 mg/g	2.9842%



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PASS

### CATEGORY 1 PESTICIDE TEST RESULTS - 11/17/2021 PASS

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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
Aldicarb	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Carbofuran	0.02 / 0.05	≥ 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 / 0.07	≥ LOD	N/A	ND	PASS
Daminozide	0.02 / 0.07	≥ LOD	N/A	ND	PASS
DDVP (Dichlorvos)	0.03/0.09	≥LOD	N/A	ND	PASS
Dimethoate	0.03/0.08	≥ LOD	N/A	ND	PASS
Ethoprop(hos)	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Fenoxycarb	0.03/0.08	≥LOD	N/A	ND	PASS
Fipronil	0.03/0.08	≥ LOD	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Methiocarb	0.02 / 0.07	≥ 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	0.03/0.09	≥ LOD	N/A	ND	PASS
Spiroxamine	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Thiacloprid	0.03 / 0.10	≥LOD	N/A	ND	PASS

## CATEGORY 2 PESTICIDE TEST RESULTS - 11/17/2021 PASS

		ACTION	NAT A CLUDENATION		
COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Acephate	0.02 / 0.07	0.1	N/A	ND	PASS
Acequinocyl	0.02 / 0.07	0.1	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	0.1	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	0.1	N/A	ND	PASS
Bifenazate	0.01 / 0.04	0.1	N/A	ND	PASS
Bifenthrin	0.02 / 0.05	3	N/A	ND	PASS
Boscalid	0.03 / 0.09	0.1	N/A	ND	PASS
Captan	0.19/0.57	0.7	N/A	ND	PASS
Carbaryl	0.02 / 0.06	0.5	N/A	ND	PASS
Chlorantranilip- role	0.04 / 0.12	10	N/A	ND	PASS
Clofentezine	0.03 / 0.09	0.1	N/A	ND	PASS

### CATEGORY 2 PESTICIDE TEST RESULTS - 11/17/2021 continued

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Cyfluthrin	0.12/0.38	2	N/A	ND	PASS
Cypermethrin	0.11/0.32	1	N/A	ND	PASS
Diazinon	0.02 / 0.05	0.1	N/A	ND	PASS
Dimethomorph	0.03/0.09	2	N/A	ND	PASS
Etoxazole	0.02 / 0.06	0.1	N/A	ND	PASS
Fenhexamid	0.03/0.09	0.1	N/A	ND	PASS
Fenpyroximate	0.02 / 0.06	0.1	N/A	ND	PASS
Flonicamid	0.03 / 0.10	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.10	0.1	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	0.1	N/A	ND	PASS
Imidacloprid	0.04 / 0.11	5	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	0.1	N/A	ND	PASS
Malathion	0.03 / 0.09	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.07	2	N/A	ND	PASS
Methomyl	0.03 / 0.10	1	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	0.1	N/A	ND	PASS
Naled	0.02 / 0.07	0.1	N/A	ND	PASS
Oxamyl	0.04 / 0.11	0.5	N/A	ND	PASS
Pentachloronitro- benzene*	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.04 / 0.12	0.5	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonylbu- toxide	0.02 / 0.07	3	N/A	ND	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Pyrethrins	0.04 / 0.12	0.5	N/A	ND	PASS
Pyridaben	0.02 / 0.07	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.07	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.02 / 0.06	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiamethoxam	0.03 / 0.10	5	N/A	ND	PASS
Trifloxystrobin	0.03 / 0.08	0.1	N/A	ND	PASS



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MYCOTOXIN TEST RESULTS - 11/17/2021 PASS

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS). Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	2.0 / 6.0		N/A	ND	
Aflatoxin B2	1.8 / 5.6		N/A	ND	
Aflatoxin G1	1.0/3.1		N/A	ND	
Aflatoxin G2	1.2 / 3.5		N/A	ND	
Total Aflatoxin		20		ND	PASS
Ochratoxin A	6.3 / 19.2	20	N/A	ND	PASS

## HEAVY METALS TEST RESULTS - 11/17/2021 PASS

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
Arsenic	0.02 / 0.1	0.2	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	0.1	N/A	<loq< th=""><th>PASS</th></loq<>	PASS

### MICROBIOLOGY TEST RESULTS - 11/18/2021 PASS

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants. Method: QSP 1221 - Analysis of Microbiological Contaminants

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing Escherichia coli	Not Detected in 1g	ND	PASS
Salmonella spp.	Not Detected in 1g	ND	PASS
Aspergillus fumigatus	Not Detected in 1g	ND	PASS
Aspergillus flavus	Not Detected in 1g	ND	PASS
Aspergillus niger	Not Detected in 1g	ND	PASS
Aspergillus terreus	Not Detected in 1g	ND	PASS

#### FOREIGN MATERIAL TEST RESULTS - 11/17/2021 PASS

Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta. Method: QSP 1226 - Analysis of Foreign Material in Cannabis and Cannabis Products

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS

### WATER ACTIVITY TEST RESULTS - 11/17/2021 PASS



Method: QSP 1227 - Analysis of Water Activity in Cannabis and Cannabis Products

COMPOUND	ACTION LIMIT (Aw)	MEASUREMENT UNCERTAINTY (Aw)	RESULT (Aw)	RESULT
Water Activity	0.65	±0.00306	0.4438	PASS