

SAMPLE NAME: Pineapple Express

Flower, Hemp

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR / TESTED FOR

Business Name: Budding Ventures

License Number:

Address:

SAMPLE DETAIL

Batch Number: CS-21326-PE

Sample ID: 211207R009

Date Collected: 12/07/2021

Date Received: 12/07/2021

Batch Size:

Sample Size:

Unit Mass:

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

CALCULATED USING DRY-WEIGHT

Total THC: 0.68%

Total CBD: 15.1%

Sum of Cannabinoids: 19.32%

Total Cannabinoids: 17.2%

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 = $\Delta 9\text{THC} + (\text{THCa} \cdot 0.877)$

Total CBD = $\text{CBD} + (\text{CBDa} \cdot 0.877)$

Sum of Cannabinoids = $\Delta 9\text{THC} + \text{THCa} + \text{CBD} + \text{CBDa} + \text{CBG} + \text{CBGa} + \text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Total Cannabinoids = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDa}) +$

$(\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) +$

$(\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Moisture: 13.1%

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 1.5648%



SAFETY ANALYSIS - SUMMARY

Pesticides: ND

Mycotoxins: ND

Heavy Metals: DETECTED

Microbiology (PCR): ND

Foreign Material: ✔ PASS

Water Activity: DETECTED

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 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: Kelsey Cochran
 Date: 12/09/2021
 Approved by: Josh Wurzer, President
 Date: 12/09/2021



Cannabinoid Analysis

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

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

TOTAL THC: 0.68%

Total THC ($\Delta^9\text{THC} + 0.877 * \text{THCa}$)

TOTAL CBD: 15.1%

Total CBD ($\text{CBD} + 0.877 * \text{CBDA}$)

TOTAL CANNABINOIDS: 17.2%

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

TOTAL CBG: 0.64%

Total CBG ($\text{CBG} + 0.877 * \text{CBGa}$)

TOTAL THCV: ND

Total THCV ($\text{THCV} + 0.877 * \text{THCVa}$)

TOTAL CBC: 0.69%

Total CBC ($\text{CBC} + 0.877 * \text{CBCa}$)

TOTAL CBDV: 0.049%

Total CBDV ($\text{CBDV} + 0.877 * \text{CBDVa}$)

CANNABINOID TEST RESULTS - 12/09/2021

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBDA	0.06 / 0.22	±6.616	156.78	15.678
CBD	0.1 / 0.3	±0.74	13.5	1.35
CBCa	0.1 / 0.4	±0.60	6.8	0.68
CBGa	0.1 / 0.4	±0.44	6.4	0.64
THCa	0.04 / 0.24	±0.244	5.90	0.590
$\Delta^9\text{THC}$	0.1 / 0.4	±0.06	1.6	0.16
CBC	0.1 / 0.2	±0.04	0.9	0.09
CBG	0.2 / 0.5	±0.07	0.8	0.08
CBDVa	0.02 / 0.22	±0.006	0.56	0.056
$\Delta^8\text{THC}$	0.05 / 0.50	N/A	ND	ND
THCV	0.07 / 0.21	N/A	ND	ND
THCVa	0.05 / 0.17	N/A	ND	ND
CBDV	0.1 / 0.3	N/A	ND	ND
CBL	0.1 / 0.4	N/A	ND	ND
CBN	0.07 / 0.20	N/A	ND	ND
SUM OF CANNABINOIDS			193.2 mg/g	19.32%

MOISTURE TEST RESULT

13.1%

Tested 12/08/2021

Method: QSP 1224 - Loss on Drying (Moisture)



Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

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

TERPENOID TEST RESULTS - 12/09/2021

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Myrcene	0.007 / 0.025	±0.2074	4.569	0.4569
β Caryophyllene	0.004 / 0.013	±0.1788	2.584	0.2584
α Bisabolol	0.008 / 0.026	±0.1105	1.999	0.1999
α Pinene	0.005 / 0.015	±0.0724	1.575	0.1575
Guaiol	0.011 / 0.035	±0.0845	1.210	0.1210
α Humulene	0.009 / 0.031	±0.0531	0.768	0.0768
β Pinene	0.004 / 0.015	±0.0275	0.663	0.0663
Limonene	0.005 / 0.016	±0.0226	0.539	0.0539
Linalool	0.009 / 0.030	±0.0210	0.416	0.0416
Caryophyllene Oxide	0.011 / 0.038	±0.0223	0.292	0.0292



Continued on next page

 **Terpenoid Analysis** *Continued*

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

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

1 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.

2 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 CB₂ receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

3 α Bisabolol

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.

TERPENOID TEST RESULTS - 12/09/2021 *continued*

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Nerolidol	0.008 / 0.028	±0.0257	0.253	0.0253
Terpineol	0.014 / 0.046	±0.0179	0.228	0.0228
Fenchol	0.009 / 0.029	±0.0077	0.162	0.0162
trans-β-Farnesene	0.008 / 0.028	±0.0102	0.140	0.0140
Borneol	0.004 / 0.014	±0.0049	0.081	0.0081
Ocimene	0.015 / 0.034	±0.0023	0.046	0.0046
Camphene	0.004 / 0.014	±0.0017	0.041	0.0041
Citronellol	0.003 / 0.010	±0.0013	0.036	0.0036
R-(+)-Pulegone	0.003 / 0.010	±0.0020	0.024	0.0024
γ Terpinene	0.005 / 0.018	±0.0007	0.022	0.0022
α Phellandrene	0.006 / 0.019	N/A	<LOQ	<LOQ
p-Cymene	0.005 / 0.015	N/A	<LOQ	<LOQ
Eucalyptol	0.005 / 0.018	N/A	<LOQ	<LOQ
Sabinene Hydrate	0.007 / 0.022	N/A	<LOQ	<LOQ
Fenchone	0.008 / 0.026	N/A	<LOQ	<LOQ
Terpinolene	0.008 / 0.027	N/A	<LOQ	<LOQ
Nerol	0.003 / 0.011	N/A	<LOQ	<LOQ
Sabinene	0.004 / 0.014	N/A	ND	ND
3 Carene	0.005 / 0.018	N/A	ND	ND
α Terpinene	0.006 / 0.019	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
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.012	N/A	ND	ND
α Cedrene	0.005 / 0.017	N/A	ND	ND
Valencene	0.010 / 0.033	N/A	ND	ND
Cedrol	0.009 / 0.032	N/A	ND	ND
TOTAL TERPENOIDS			15.648 mg/g	1.5648%

 **Pesticide Analysis**

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 Analysis of Pesticides by GC-MS



PESTICIDE TEST RESULTS - 12/09/2021 ND

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Abamectin	0.03 / 0.10	N/A	ND
Acephate	0.02 / 0.07	N/A	ND
Acequinocyl	0.02 / 0.07	N/A	ND
Acetamiprid	0.02 / 0.05	N/A	ND
Aldicarb	0.03 / 0.08	N/A	ND
Azoxystrobin	0.02 / 0.07	N/A	ND

Continued on next page



Pesticide Analysis *Continued*

PESTICIDE TEST RESULTS - 12/09/2021 *continued ND*

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)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Bifenazate	0.01 / 0.04	N/A	ND
Bifenthrin	0.02 / 0.05	N/A	ND
Boscalid	0.03 / 0.09	N/A	ND
Captan	0.19 / 0.57	N/A	ND
Carbaryl	0.02 / 0.06	N/A	ND
Carbofuran	0.02 / 0.05	N/A	ND
Chlorantraniliprole	0.04 / 0.12	N/A	ND
Chlordane*	0.03 / 0.08	N/A	ND
Chlorfenapyr*	0.03 / 0.10	N/A	ND
Chlorpyrifos	0.02 / 0.06	N/A	ND
Clofentezine	0.03 / 0.09	N/A	ND
Coumaphos	0.02 / 0.07	N/A	ND
Cyfluthrin	0.12 / 0.38	N/A	ND
Cypermethrin	0.11 / 0.32	N/A	ND
Daminozide	0.02 / 0.07	N/A	ND
DDVP (Dichlorvos)	0.03 / 0.09	N/A	ND
Diazinon	0.02 / 0.05	N/A	ND
Dimethoate	0.03 / 0.08	N/A	ND
Dimethomorph	0.03 / 0.09	N/A	ND
Ethoprop(hos)	0.03 / 0.10	N/A	ND
Etofenprox	0.02 / 0.06	N/A	ND
Etoazole	0.02 / 0.06	N/A	ND
Fenhexamid	0.03 / 0.09	N/A	ND
Fenoxycarb	0.03 / 0.08	N/A	ND
Fenpyroximate	0.02 / 0.06	N/A	ND
Fipronil	0.03 / 0.08	N/A	ND
Flonicamid	0.03 / 0.10	N/A	ND
Fludioxonil	0.03 / 0.10	N/A	ND
Hexythiazox	0.02 / 0.07	N/A	ND
Imazalil	0.02 / 0.06	N/A	ND
Imidacloprid	0.04 / 0.11	N/A	ND
Kresoxim-methyl	0.02 / 0.07	N/A	ND
Malathion	0.03 / 0.09	N/A	ND
Metalaxyl	0.02 / 0.07	N/A	ND
Methiocarb	0.02 / 0.07	N/A	ND
Methomyl	0.03 / 0.10	N/A	ND
Methyl parathion	0.03 / 0.10	N/A	ND
Mevinphos	0.03 / 0.09	N/A	ND
Myclobutanil	0.03 / 0.09	N/A	ND
Naled	0.02 / 0.07	N/A	ND
Oxamyl	0.04 / 0.11	N/A	ND

Continued on next page





Pesticide Analysis *Continued*

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

PESTICIDE TEST RESULTS - 12/09/2021 *continued ND*

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Paclobutrazol	0.02 / 0.05	N/A	ND
Pentachloronitrobenzene*	0.03 / 0.09	N/A	ND
Permethrin	0.04 / 0.12	N/A	ND
Phosmet	0.03 / 0.10	N/A	ND
Piperonylbutoxide	0.02 / 0.07	N/A	ND
Prallethrin	0.03 / 0.08	N/A	ND
Propiconazole	0.02 / 0.07	N/A	ND
Propoxur	0.03 / 0.09	N/A	ND
Pyrethrins	0.04 / 0.12	N/A	ND
Pyridaben	0.02 / 0.07	N/A	ND
Spinetoram	0.02 / 0.07	N/A	ND
Spinosad	0.02 / 0.07	N/A	ND
Spiromesifen	0.02 / 0.05	N/A	ND
Spirotetramat	0.02 / 0.06	N/A	ND
Spiroxamine	0.03 / 0.08	N/A	ND
Tebuconazole	0.02 / 0.07	N/A	ND
Thiacloprid	0.03 / 0.10	N/A	ND
Thiamethoxam	0.03 / 0.10	N/A	ND
Trifloxystrobin	0.03 / 0.08	N/A	ND



Mycotoxin Analysis

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS

MYCOTOXIN TEST RESULTS - 12/09/2021 ND

COMPOUND	LOD/LOQ (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)
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			ND
Ochratoxin A	6.3 / 19.2	N/A	ND



Heavy Metals Analysis

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

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

HEAVY METALS TEST RESULTS - 12/08/2021 DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Arsenic	0.02 / 0.1	±0.01	0.3
Cadmium	0.02 / 0.05	±0.015	0.15
Lead	0.04 / 0.1	±0.01	0.3
Mercury	0.002 / 0.01	N/A	<LOQ



Microbiology Analysis

PCR

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

Method: QSP 1221 - Analysis of Microbiological Contaminants

MICROBIOLOGY TEST RESULTS (PCR) - 12/09/2021 ND

COMPOUND	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	ND
<i>Salmonella</i> spp.	ND
<i>Aspergillus fumigatus</i>	ND
<i>Aspergillus flavus</i>	ND
<i>Aspergillus niger</i>	ND
<i>Aspergillus terreus</i>	ND

Foreign Material Analysis

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

FOREIGN MATERIAL TEST RESULTS - 12/09/2021 ✔ PASS

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 Analysis

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

WATER ACTIVITY TEST RESULTS - 12/08/2021 DETECTED

COMPOUND	MEASUREMENT UNCERTAINTY (Aw)	RESULT (Aw)
Water Activity	±0.00392	0.5682

