



# **Comprehensive Analysis Report**

## Sample Overview

Lot#: CBD0032522

Client: Farmer & Chemist

7719 S Main St, Midvale, UT 84047

Sample Name: Dog Treats

Sample Matrix: Edible Sample Lot: N/A Date Received: 11/22/2022 APRC #: RMH221123AA



Assay	Disposition	Date Tested		
Cannabinoid Testing (Potency)	Tested	11-23-2022		
Heavy Metals - Utah State Cannabis Panel	Tested	11-30-2022		
Microbial Impurities	Tested	11-28-2022		
Pesticide Screen (APRC Panel)	Tested	11-28-2022		
<b>Residual Solvents</b>	Tested	11-23-2022		
Mycotoxin Quantitation	Tested	11-28-2022		



Accreditation #115229 Aromatic Plant Research Center is an ISO 17025:2017 certified laboratory.

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## Potency

### Lot#: CBD0032522

Method: SOP 1-2026.01	Sample Name: Dog Treats	APRC Lot Number: RMH221123A		
Cannabinoid	RT	Total %	Total mg/g	
Cannabidivarinic Acid (CBDVA)	ND	ND	ND	
Cannabidivarin (CBDV)	ND	ND	ND	
Cannabidiolic Acid (CBDA)	ND	ND	ND	
Cannabigerolic Acid (CBGA)	ND	ND	ND	
Cannabinol (CBN)	ND	ND	ND	
Cannabidiol (CBD)	3.23	0.22	2.17	
Cannabigerol (CBG)	3.07	0.06	0.62	
Tetrahydrocannabivarin (THCV)	ND	ND	ND	
Tetrahydrocannabivarin Acid (THCVA)	ND	ND	ND	
Delta-9-Tetrahydrocannabinol (Δ9-THC)	ND	ND	ND	
Delta-8-Tetrahydrocannabinol (Δ8-THC)	ND	ND	ND	
Tetrahydrocannabinolic acid (THCA-A)	ND	ND	ND	
Cannabichromene (CBC)	ND	ND	ND	
Cannabichromene Acid (CBCA)	ND	ND	ND	
$\Delta 10$ and $\Delta 6a, 10a$ -Tetrahydrocannabinol	ND	ND	ND	

### Performed by: Sujan Timsina

Reviewed by: Spencer Kipfmueller

	%	mg/g
Total Cannabinoids	0.28	2.79
Total THC <sup>t</sup>	ND	ND
Total CBD <sup>s</sup>	0.22	2.17

 $^{t}$  Total Thc is calculated by  $\Delta9\text{-THC}$  +(THCA-A\*0.877)

<sup>s</sup>Total CBD is calculated by CBD + (CBDA\*0.877)

LOD > 0.005% by mass, LOQ > 0.01% by mass





# **Heavy Metals**

Lot#: CBD0032522

Method: CTLA	Sample	Name: Dog Treats	APRC Lot Number: RMH221123A		
Analyte	Result (ppm)	LOD (ppm)	Threshold (ppm)	Pass/Fail	
Arsenic	0.007	0.001	2.00	Pass	
Cadmium	0.002	0.001	0.82	Pass	
Lead	0.015	0.001	1.20	Pass	
Mercury	<0.001	0.001	0.40	Pass	

Heavy metal analysis is completed in partnership with Contract Testing Laboratories of America, Orem UT.

Performed by: CTLA

Reviewed by: William Deutschman

Method: SOP 1-2034.01





APRC Lot Number: RMH221123AA

### Instrument Analysis Report

## **Microbial Impurities**

Lot#: CBD0032522

Total Counts				
Microbial Group:	Result (CFU/g):	Specification:	Disposition:	
Total Aerobic Bacteria	<10	≤10,000	Pass	
Total Yeast and Mold	<10	≤1,000	Pass	

Sample Name: Dog Treats

Specific Organism Identification				
Microbial Organism:	Result:	Specification:	Disposition	
Aspergillus flavus	ND	Report Only	Tested	
Aspergillus fumigatus	ND	Report Only	Tested	
Aspergillus niger	ND	Report Only	Tested	
Aspergillus terreus	ND	Report Only	Tested	
Escherichia coli - Non shigella	ND	Not Detected	Pass	
Escherichia coli - Shigella spp	ND	Not Detected	Pass	
STEC	ND	Report Only	Tested	
Listeria monocytogenes	ND	Report Only	Tested	
Salmonella - Specific Gene	ND	Report Only	Tested	
Staphylococcus aureus	ND	Not Detected	Pass	
Pseudomonas aeruginosa	ND	Not Detected	Pass	

Performed by: Jordan Morley

Notes: Foreign Matter: Not Detected.

Reviewed by: Riley Hunter

# Pesticides

Method:

Aromatic Plant Research Cent	*	APRC Aromatic Plant Research Cent
		APRC

### Lot#: CBD0032522

Pesticide:	Finding	Action Limit (µg/g)	Pass/Fail	Pesticide:	Finding	Action Limit (µg/g)	Pass/Fail
Abamectin	ND	0.5	Pass	Hexythiazon	ND	1.0	Pass
Acephate	ND	0.4	Pass	Imazal	ND	0.2	Pass
Acequinocyl	ND	2.0	Pass	Imidacloprid	ND	0.4	Pass
Acetamiprid	ND	0.2	Pass	Kresoxim-methyl	ND	0.4	Pass
Aldicarb	ND	0.4	Pass	Malathion A	ND	0.2	Pass
Azoxystrobin	ND	0.2	Pass	Metalaxyl	ND	0.2	Pass
Bifenazate	ND	0.2	Pass	Methiocarb	ND	0.2	Pass
Bifenthrin	ND	0.2	Pass	Methomyl	ND	0.4	Pass
Boscalid	ND	0.4	Pass	Methylparathion	ND	0.2	Pass
Carbaryl	ND	0.2	Pass	MGK-264	ND	0.2	Pass
Carbofuran	ND	0.2	Pass	Myclobutanil	ND	0.2	Pass
Chlorantraniliprole	ND	0.2	Pass	Naled	ND	0.5	Pass
Chlorfenapyr	ND	1.0	Pass	Oxamyl	ND	1.0	Pass
Chlorpyrifos	ND	0.2	Pass	Paclobutrazol	ND	0.4	Pass
Clofentezine	ND	0.2	Pass	Permethrins	ND	0.2	Pass
Cyfluthrin	ND	1.0	Pass	Phosmet	ND	0.2	Pass
Cypermethrin	ND	1.0	Pass	Piperonylbutoxide	ND	2.0	Pass
Daminozide	ND	1.0	Pass	Prallethrin	ND	0.2	Pass
Dichlorvos	ND	0.1	Pass	Propiconazole	ND	0.4	Pass
Diazinon	ND	0.2	Pass	Propoxur	ND	0.2	Pass
Dimethoate	ND	0.2	Pass	Pyrethrin	ND	1.0	Pass
Ethoprophos	ND	0.2	Pass	Pyridaben	ND	0.2	Pass
Etofenprox	ND	0.4	Pass	Spinosad	ND	0.2	Pass
Etoxazole	ND	0.2	Pass	Spinetoram	ND	0.1	Pass
Fenoxycarb	ND	0.2	Pass	Spirotetramat	ND	0.2	Pass
Fenpyroximate	ND	0.4	Pass	Spiroxamine	ND	0.4	Pass
Fipronil	ND	0.4	Pass	Tebuconazole	ND	0.4	Pass
Flonicamid	ND	1.0	Pass	Thiacloprid	ND	0.2	Pass
Fludioxonil	ND	0.4	Pass	Thiamethoxam	ND	0.2	Pass
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Sample Name: Dog Treats

#### APRC Lot Number: RMH221123AA

	Hexythiazon	ND	1.0	Pass
	Imazal	ND	0.2	Pass
	Imidacloprid	ND	0.4	Pass
	Kresoxim-methyl	ND	0.4	Pass
	Malathion A	ND	0.2	Pass
	Metalaxyl	ND	0.2	Pass
	Methiocarb	ND	0.2	Pass
	Methomyl	ND	0.4	Pass
	Methylparathion	ND	0.2	Pass
	MGK-264	ND	0.2	Pass
	Myclobutanil	ND	0.2	Pass
	Naled	ND	0.5	Pass
	Oxamyl	ND	1.0	Pass
	Paclobutrazol	ND	0.4	Pass
	Permethrins	ND	0.2	Pass
	Phosmet	ND	0.2	Pass
	Piperonylbutoxide	ND	2.0	Pass
	Prallethrin	ND	0.2	Pass
	Propiconazole	ND	0.4	Pass
	Propoxur	ND	0.2	Pass
	Pyrethrin	ND	1.0	Pass
	Pyridaben	ND	0.2	Pass
RF	Spinosad	ND	0.2	Pass
	Spinetoram	ND	0.1	Pass
	Spirotetramat	ND	0.2	Pass
	Spiroxamine	ND	0.4	Pass
	Tebuconazole	ND	0.4	Pass
	Thiacloprid	ND	0.2	Pass
	Thiamethoxam	ND	0.2	Pass
	Trifloxystrobin	ND	0.2	Pass
Perfo by:	ormed <u>Noura</u> <u>Ahme</u>	-	eviewed y:	<u>Prabodh</u> <u>Satyal</u>

Pesticide testing performed in a non-ISO 17025:2017 accredited facility.

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## **Residual Solvents**

### Lot#: CBD0032522

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### Method: SOP 1-2027.02

Sample Name: Dog Treats

### APRC Lot Number: RMH221123AA

<b>Residual Solvent</b>	Finding (µg/g)	Action Level (µg/g)	Pass/Fail
Dimethyl sulfoxide	ND	5000	Pass
N,N-dimethylacetamide	ND	1090	Pass
1,2 Dimethoxyethane	ND	100	Pass
1,4 Dioxane	ND	380	Pass
1-Butanol	ND	5000	Pass
1-Pentanol	ND	5000	Pass
1-Propanol	ND	5000	Pass
2-Butanone	ND	5000	Pass
2-Butanol	ND	5000	Pass
2-Ethoxyethanol	ND	160	Pass
2-Methylbutane	ND	5000	Pass
2-Propanol	ND	5000	Pass
Acetone	ND	5000	Pass
Acetonitrile	ND	410	Pass
Benzene	ND	2	Pass
Butane	ND	5000	Pass
Cumene	ND	70	Pass
Cyclohexane	ND	3880	Pass
Dichloromethane	ND	600	Pass
2,2-Dimethylbutane	ND	290	Pass
2,3-Dimethylbutane	ND	290	Pass
m,p-Xylene	ND	See Total Xylenes	Pass
o-Xylene	ND	See Total Xylenes	Pass
Ethanol	ND	5000	Pass
Ethyl Acetate	ND	5000	Pass
Ethyl Benzene	ND	See Total Xylenes	Pass
Ethyl Ether	ND	5000	Pass
Ethylene Glycol	12.605	620	Pass
Ethylene Oxide	ND	50	Pass

Residual Solvent	Finding (µg/g)	Action Level (µg/g)	Pass/Fail
Heptane	ND	5000	Pass
Hexane	ND	290	Pass
Isopropyl Acetate	ND	5000	Pass
Methanol	21.125	3000	Pass
Methylpropane	ND	5000	Pass
2-Methylpentane	ND	290	Pass
3-Methylpentane	ND	290	Pass
N,N-Dimethylformamide	ND	880	Pass
Pentane	ND	5000	Pass
Propane	ND	5000	Pass
Pyridine	ND	100	Pass
Sulfolane	ND	160	Pass
Tetrahydrofuran	ND	720	Pass
Toluene	ND	890	Pass
Total Xylenes	ND	2170	Pass

† Per Utah state code 4-41a-701(3) Section R68-29-6 ‡ Total Xylenes is a combination of the following: o-Xylene, m-Xylene, p-Xylene, and Ethylbenzene

> Overall Disposition: <u>Pass</u> Performed By: <u>Anil Rokaya</u> Reviewed By: <u>Spencer Kipfmueller</u>





## **Mycotoxins**

Lot#: CBD0032522

hod: Mycotoxin Sample Name: Dog Tre		APRC Lo	t Number: RMH221123A	
Mycotoxin	Finding (µg/kg)	Limit(µg/kg)	Pass/Fail	
Aflatoxin B1:	ND	- QV		
Aflatoxin B2:	ND			
Aflatoxin G1:	ND			
Aflatoxin G2:	ND			
Total Aflatoxins:	0	20	Pass	
Ochratoxin A:	ND	20	Pass	

### Performed by: Noura Ahmed

### Reviewed by: Prabodh Satyal

Will Det

Approved By: William A. Deutschman, Ph.D. Laboratory Director - APRC Lehi 12/01/2022

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