

### Certificate of Analysis

<b>Company:</b> Grass Roots Vermont	<b>Sample ID:</b> Mac+Cheese	<b>Report Date:</b> 5/24/2023
84 Lovers LN	<b>Lot:</b> FAD-GRVT204309	<b>Date Analyzed:</b> 5/23/2023
Brandon, VT 05733	<b>Matrix:</b> Flower	<b>Analyst:</b> 011
<b>Customer ID:</b> 230207-0	<b>Date Sampled:</b> N/A	<b>Report ID:</b> C230517AY
<b>Grower License #:</b> RD3083365	<b>Date Received:</b> 5/17/2023	

### Cannabinoid Summary

Cannabinoid Profile	LOQ (mg/g)	Concentration (mg/g)	Weight (%)
CBDVA	0.0005	<LOQ	<LOQ
CBDV	0.0012	<LOQ	<LOQ
CBDA	0.0008	1.10	0.11
CBGA	0.0008	7.60	0.76
CBG	0.0019	1.02	0.10
CBD	0.0019	<LOQ	<LOQ
THCV	0.0021	<LOQ	<LOQ
CBN	0.0013	1.22	0.12
Δ9-THC	0.0020	17.61	1.76
Δ8-THC	0.0019	<LOQ	<LOQ
THC-A	0.0034	284.54	28.45
CBC	0.0024	<LOQ	<LOQ
<b>Total THC</b>		<b>267.15</b>	<b>26.71</b>
<b>Total CBD</b>		<b>0.97</b>	<b>0.10</b>
<b>Total Cannabinoids</b>		<b>313.10</b>	<b>31.31</b>

<b>26.71%</b>	<b>0.1%</b>
<b>Total THC</b>	<b>Total CBD</b>

<b>31.31%</b>	<b>1.76%</b>
<b>Total Cannabinoids</b>	<b>Δ9-THC</b>

<b>10.50%</b>	<b>1 : 0</b>
<b>Percent Moisture</b>	<b>THC : CBD Ratio</b>

**Cannabinoids Methodology:** High Performance Liquid Chromatography (HPLC) using PerkinElmer FLEXAR™ with Photo Diode Array Detector (PDA)

Total CBD and total THC are calculated values, to account for assumed decarboxylation from the acid form (THCA or CBDA) to the neutral form, causing weight loss of the acid group: These values are calculated as follows:  
 Total THC = (THCA x 0.877) + Δ9-THC      Total CBD = (CBDA x 0.877) + CBD  
 Ratio of Total CBD: Total THC      Reagent Blanks: < LOQs for all analytes

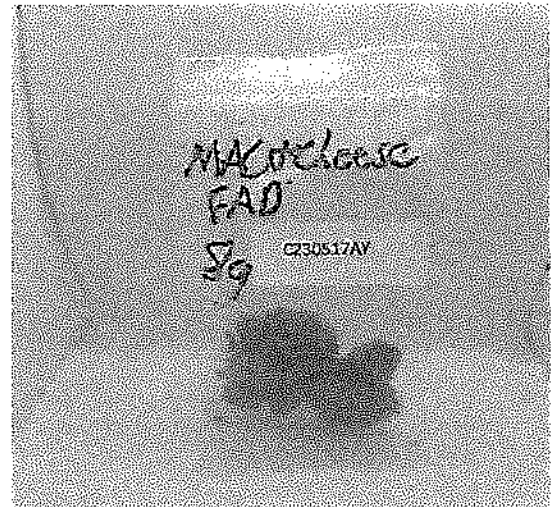
LOQ = The lowest quantity that this method can reliably detect. Any cannabinoid that was not detected is assumed to be less than the stated LOQ (<LOQ).

All results reflect dry weight of material, based on % moisture of the sample.

Measurement of Uncertainty (MU): the parameter, associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to measurement.  
 Δ9-THC MU = ±0.005%      Total THC MU = ±0.007%

All other cannabinoid MU values are available upon request.

All moisture analysis is determined by loss-on-drying measurement using OHAUS Model MB90 Moisture Content Readers.



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Certified by: Luke E. M.  
 Luke Emerson Mason (Laboratory Director, Bia Diagnostics)

**Certificate of Analysis**

<b>Company:</b> Grass Roots Vermont 84 Lovers LN Brandon, VT 05733	<b>Sample ID:</b> Mac+Cheese <b>Lot:</b> FAD-GRVT204309 <b>Matrix:</b> Flower	<b>Report Date:</b> 5/30/2023 <b>Date Analyzed:</b> 5/26/2023 <b>Analyst:</b> 011
<b>Customer ID:</b> 230207-0 <b>Grower License #:</b> RD3083365	<b>Date Sampled:</b> N/A <b>Date Received:</b> 5/17/2023	<b>Report ID:</b> C230517AY

**Pathogen Summary**

Target Pathogens	Method	LOD (cfu/g)	Result (cfu/g)
Aspergillus - flavus, fumigatus, niger, terreus	Aspergillus AOAC PTM No. 032104	5	Detected
STEC	STEC Virx AOAC PTM No. 121203	5	<LOD
Salmonella spp.	Salmonella II AOAC PTM No. 010803	5	<LOD



Test Methodology: Bio-Rad IQ-Check PCR Kits

cfu/g = colony forming units per gram

LOD = The lowest quantity that this method can reliably detect. Any microbial growth that was not detected is assumed to be less than the stated LOD (<LOD).

Reagent Blanks: <LOD for all analytes

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**Certificate of Analysis**
**Company:** Grass Roots Vermont  
 84 Lovers LN  
 Brandon, VT 05733

**Sample ID:** Mac+Cheese  
**Lot:** FAD-GRVT204309  
**Matrix:** Flower

**Report Date:** 5/30/2023  
**Date Analyzed:** 5/25/2023  
**Analyst:** 045

**Customer ID:** 230207-0

**Date Sampled:** N/A

**Report ID:** C230517AY

**Grower License #:** RD3083365

**Date Received:** 5/17/2023

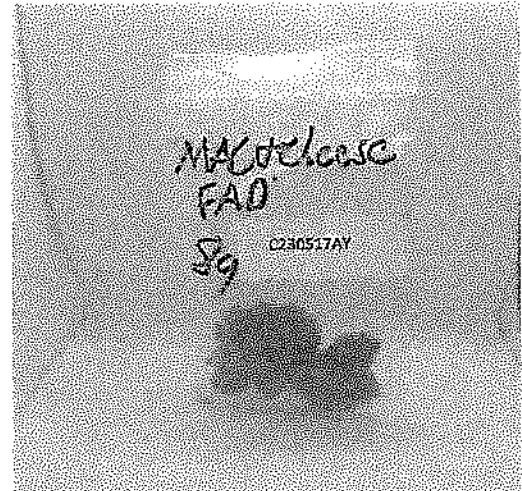
**Pesticides/Mycotoxins Summary**

Category II Residual Pesticide	LOQ (ppm)	Concentration (ppm)
Abamectin	0.0100	<LOQ
Acephate	0.0010	<LOQ
Acequinocyl	0.0010	<LOQ
Azoxystrobin	0.0010	<LOQ
Bifenazate	0.0010	<LOQ
Bifenthrin	0.0010	<LOQ
Carbaryl	0.0010	<LOQ
Cypermethrin	0.0100	<LOQ
Etoxazole	0.0010	<LOQ
Imidacloprid	0.0010	<LOQ
Myclobutanil	0.0010	<LOQ
Pyrethrin I	0.0010	<LOQ
Pyrethrin II	0.0010	<LOQ
Spinosyn A	0.0010	<LOQ
Spinosyn D	0.0010	<LOQ

Category II Mycotoxin	LOQ (ppm)	Concentration (ppm)
Ochratoxin A	0.0020	NOT TESTED
Aflatoxin B1	0.0002	NOT TESTED
Alfatoxin B2	0.0010	NOT TESTED
Alfatoxin G1	0.0002	NOT TESTED
Alfatoxin G2	0.0010	NOT TESTED

Category I Residual Pesticide	LOQ (ppm)	Concentration (ppm)
Chlorpyrifos	0.0010	<LOQ
Imazalil	0.0010	<LOQ

<b>10.50%</b>
<b>Percent Moisture</b>



LOQ = The lowest quantity this method can reliably detect. Any pesticide or mycotoxins that was not detected is assumed to be less than the stated LOQ (<LOQ).

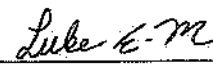
All results reflect dry weight of material, based on % moisture of the sample.

ppb = parts per billion

Pesticides/Mycotoxin Methodology: Liquid Chromatography with Tandem Mass Spectrometry using PerkinElme QSight® LX50 UHPLC and QSight 220 Mass Spectrometer

All moisture analysis is determined by loss-on-drying measurement using OHAUS Model MB90 Moisture Content Readers.

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