EXCELBIS LABS

Regulatory Compliance Testing
Certificate of Analysis

MM-Mambas-Very_Berry-10_pack

Overall Batch Result PASS

Total THC	Total CBD	Total Cannabinoids
9.860 mg per serving	0.032 mg per serving	10.647 mg per serving
98.603 mg per package	0.316 mg per package	106.475 mg per package

Batch
Lot / Batch: **MM-Mambas-VB-120622**
Source UID: **1A406030002A29F000000859**
Package UID: **1A4060300007083000051575**

Distributor
Green Spectrum Trading
14835 Bessemer St
Van Nuys CA 91411
C11-0000760-LIC

Producer
Green Acre Management (Muha Meds)
515 W 17th St
Long Beach CA 90813
CDPH-10004540

Sample
Account: **Green Spectrum Trading**
Sample ID: **1923955**
Sample Matrix: **Gummy**
Batch Size: **1080 units**
Sample Size: **8 units**
Package Size: **50 g**
Serving Size: **5 g**
Collected Date: **12/08/22**
Received Date: **12/09/22**
Completed Date: **12/16/22**

Cannabinoids	TESTED
Residual Solvents	PASS
Heavy Metals	PASS
Microbials	PASS
Mycotoxins	PASS
Chemical Residues	PASS
Foreign Materials	PASS
Water Activity	PASS

Quality Review
Dr. Jerry White PhD
Jerry White, PhD
Chief Scientific Officer
12/16/22

Data Review
Bryan Zahakaylo
Bryan Zahakaylo
Analyst
12/16/22

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Cannabinoids Analysis TESTED

Analytical Technique: **HPLC UV VIS**
Instrumentation: **2030C**
Method: **SOP-001**
Analysis Performed: **12/12/22**
Panel Completed: **12/13/22**

THC per serving: **9.844 mg**
THC per package: **98.439 mg**
Total THC: **0.1972%, 1.972 mg/g**

CBD per serving: **0.032 mg**
CBD per package: **0.316 mg**
Total CBD: **0.0006%, 0.006 mg/g**

Sum Cannabinoids: **0.2130%, 2.130 mg/g**
Total Cannabinoids: **0.2129%, 2.129 mg/g**

Analyte	LOD (mg/g)	LOQ (mg/g)	Results (mg/g)	Results (%)
Cannabidivarin (CBDV)	0.0000	0.0000	0.004	0.0004
Cannabidiolic Acid (CBDA)	0.0000	0.0000	<1	<0.100
Cannabigerolic Acid (CBGA)	0.0000	0.0000	0.004	0.0004
Cannabigerol (CBG)	0.0000	0.0000	0.080	0.0080
Cannabidiol (CBD)	0.0000	0.0000	0.006	0.0006
Tetrahydrocannabivarin (THCV)	0.0000	0.0000	0.011	0.0011
Cannabinol (CBN)	0.0000	0.0000	0.018	0.0018
Δ9-Tetrahydrocannabinol (Δ9-THC)	0.0000	0.0000	1.969	0.1969
Δ8-Tetrahydrocannabinol (Δ8-THC)	0.0000	0.0000	0.015	0.0015
Cannabichromene (CBC)	0.0000	0.0000	0.019	0.0019
Δ9-Tetrahydrocannabinolic Acid (Δ9-THCA)	0.0000	0.0000	0.004	0.0004

Sum Cannabinoids = Acidic Cannabinoids + Neutral Cannabinoids | Total Cannabinoids = (Acidic Cannabinoids x 0.877) + Neutral Cannabinoids | Total THC = (THCA x 0.877) + Δ9-THC | Total CBD = (CBDA x 0.877) + CBD

Residual Solvents Analysis PASS

Analytical Technique: **GC-MS**
Instrumentation: **2020**
Method: **SOP-004**
Analysis Performed: **12/13/22**
Panel Completed: **12/13/22**

Analyte	LOD (µg/g)	LOQ (µg/g)	Action Limit (µg/g)	Results (µg/g)	
1,2-Dichloroethane	0.1547	0.4688	1.00	ND	PASS
Acetone	15.4688	46.875	5000.00	ND	PASS
Acetonitrile	15.4688	46.875	410.00	ND	PASS
Benzene	0.1547	0.4688	1.00	ND	PASS
Butane	15.4688	46.875	5000.00	ND	PASS
Chloroform	0.1547	0.4688	1.00	ND	PASS
Ethanol	15.4688	46.875	5000.00	ND	PASS
Ethyl acetate	15.4688	46.875	5000.00	ND	PASS
Ethyl ether	15.4688	46.875	5000.00	ND	PASS
Ethylene oxide	0.1547	0.4688	1.00	ND	PASS
Heptane	15.4688	46.875	5000.00	ND	PASS
Hexane	15.4688	46.875	290.00	ND	PASS
Isopropyl alcohol	15.4688	46.875	5000.00	ND	PASS
Methanol	15.4688	46.875	3000.00	ND	PASS
Methylene chloride	0.1547	0.4688	1.00	ND	PASS
Pentane	15.4688	46.875	5000.00	ND	PASS
Propane	15.4688	46.875	5000.00	ND	PASS
Toluene	15.4688	46.875	890.00	ND	PASS
Trichloroethylene	0.1547	0.4688	1.00	ND	PASS
Total xylenes	-	-	2170.00	ND	PASS
(meta, para-xylene)	46.4063	140.625	-	ND	
(ortho-xylene)	46.4063	140.625	-	ND	

Heavy Metals Analysis PASS

Analytical Technique: **ICP-MS**
Instrumentation: **NexION**
Method: **SOP-005**
Analysis Performed: **12/13/22**
Panel Completed: **12/13/22**

Analyte	LOD (µg/g)	LOQ (µg/g)	Action Limit (µg/g)	Results (µg/g)	
Arsenic 75	0.0165	0.0500	0.200	ND	PASS
Cadmium 111	0.0165	0.0500	0.200	ND	PASS
Lead 208	0.0413	0.1250	0.500	ND	PASS
Mercury 202	0.0033	0.0100	0.100	ND	PASS

Microbials Analysis PASS

Analytical Technique: **Colorimetric Microarray**
Instrumentation: **SensoSpot**
Method: **SOP-006**
Analysis Performed: **12/12/22**
Panel Completed: **12/12/22**

Analyte	Action Limit	Results	
Aspergillus flavus	Detected in 1 gram	ND	PASS
Aspergillus fumigatus	Detected in 1 gram	ND	PASS
Aspergillus niger	Detected in 1 gram	ND	PASS
Aspergillus terreus	Detected in 1 gram	ND	PASS
Salmonella spp.	Detected in 1 gram	ND	PASS
Escherichia coli (STEC)	Detected in 1 gram	ND	PASS

Mycotoxins Analysis PASS

Analytical Technique: **HPLC-MS/MS**
Instrumentation: **5500**
Method: **SOP-003**
Analysis Performed: **12/09/22**
Panel Completed: **12/12/22**

Analyte	LOD (µg/kg)	LOQ (µg/kg)	Action Limit (µg/kg)	Results (µg/kg)	
Ochratoxin A	6.6000	20.0000	20	ND	PASS
Total Aflatoxins	-	-	20	ND	PASS
(Aflatoxin B1)	1.7000	5.0000	-	ND	
(Aflatoxin B2)	1.7000	5.0000	-	ND	
(Aflatoxin G1)	1.7000	5.0000	-	ND	
(Aflatoxin G2)	1.7000	5.0000	-	ND	

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Chemical Residues Analysis PASS

Analytical Technique: **HPLC-MS/MS**
Instrumentation: **5500**
Method: **SOP-003**
Analysis Performed: **12/09/22**
Panel Completed: **12/12/22**

Analyte	LOD (µg/g)	LOQ(µg/g)	Action Limit (µg/g)	Results (µg/g)	
Abamectin	0.0333	0.1000	0.30	ND	PASS
Acephate	0.0333	0.1000	5.00	ND	PASS
Acequinocyl	0.0333	0.1000	4.00	ND	PASS
Acetamiprid	0.0333	0.1000	5.00	ND	PASS
Aldicarb	0.0333	0.1000	>LOD	ND	PASS
Azoxystrobin	0.0333	0.1000	40.00	ND	PASS
Bifenazate	0.0333	0.1000	5.00	ND	PASS
Bifenthrin	0.0333	0.1000	0.50	ND	PASS
Boscalid	0.0333	0.1000	10.00	ND	PASS
Carbaryl	0.0333	0.1000	0.50	ND	PASS
Carbofuran	0.0333	0.1000	>LOD	ND	PASS
Chlorantraniliprole	0.0333	0.1000	40.00	ND	PASS
Chlorpyrifos	0.0333	0.1000	>LOD	ND	PASS
Clofentezine	0.0333	0.1000	0.50	ND	PASS
Coumaphos	0.0333	0.1000	>LOD	ND	PASS
Daminozide	0.0333	0.1000	>LOD	ND	PASS
Diazinon	0.1000	0.1000	0.20	ND	PASS
Dichlorvos	0.0333	0.1000	>LOD	ND	PASS
Dimethoate	0.0333	0.1000	>LOD	ND	PASS
Dimethomorph	0.0333	0.1000	20.00	ND	PASS
Ethoprophos	0.0333	0.1000	>LOD	ND	PASS
Etofenprox	0.0333	0.1000	>LOD	ND	PASS
Etoxazole	0.0333	0.1000	1.50	ND	PASS
Fenhexamid	0.0333	0.1000	10.00	ND	PASS
Fenoxycarb	0.0333	0.1000	>LOD	ND	PASS
Fenpyroximate	0.0333	0.1000	2.00	ND	PASS
Fipronil	0.0333	0.1000	>LOD	ND	PASS
Flonicamid	0.0333	0.1000	2.00	ND	PASS
Fludioxonil	0.0333	0.1000	30.00	ND	PASS
Hexythiazox	0.0333	0.1000	2.00	ND	PASS
Imazalil	0.0333	0.1000	>LOD	ND	PASS
Imidacloprid	0.0333	0.1000	3.00	ND	PASS
Kresoxim-Methyl	0.0333	0.1000	1.00	ND	PASS
Malathion	0.0333	0.1000	5.00	ND	PASS
Metalaxyl	0.0333	0.1000	15.00	ND	PASS
Methiocarb	0.0333	0.1000	>LOD	ND	PASS
Methomyl	0.0333	0.1000	0.10	ND	PASS
Mevinphos	0.0333	0.1000	>LOD	ND	PASS
Myclobutanil	0.0333	0.1000	9.00	ND	PASS
Naled	0.0333	0.1000	0.50	ND	PASS
Oxamyl	0.0333	0.1000	0.20	ND	PASS
Paclobutrazol	0.0333	0.1000	0.00	ND	PASS
Permethrin	0.0333	0.1000	20.00	ND	PASS
Phosmet	0.0333	0.1000	0.20	ND	PASS
Piperonyl Butoxide	0.0333	0.1000	8.00	ND	PASS
Prallethrin	0.0333	0.1000	0.40	ND	PASS
Propiconazole	0.0333	0.1000	20.00	ND	PASS
Propoxur	0.0333	0.1000	0.00	ND	PASS
Pyrethrins	0.0333	0.1000	1.00	ND	PASS
Pyridaben	0.0333	0.1000	3.00	ND	PASS
Spinetoram	0.0333	0.1000	3.00	ND	PASS
Spinosad	0.0333	0.1000	3.00	ND	PASS
Spiromesifen	0.0333	0.1000	12.00	ND	PASS
Spirotetramat	0.0333	0.1000	13.00	ND	PASS
Spiroxamine	0.0333	0.1000	0.00	ND	PASS
Tebuconazole	0.0333	0.1000	2.00	ND	PASS
Thiacloprid	0.0333	0.1000	0.00	ND	PASS
Thiamethoxam	0.0333	0.1000	4.50	ND	PASS
Trifloxystrobin	0.0333	0.1000	30.00	ND	PASS

Analytical Technique: **GC-MS/MS**
Instrumentation: **8050**
Method: **SOP-003**
Analysis Performed: **12/09/22**
Panel Completed: **12/12/22**

Analyte	LOD (µg/g)	LOQ(µg/g)	Action Limit (µg/g)	Results (µg/g)	
Captan	0.2310	0.7000	5.00	ND	PASS
Chlordane	0.0116	0.0350	>LOD	ND	PASS
Chlorfenapyr	0.0058	0.0175	>LOD	ND	PASS
Cyfluthrin	0.0231	0.0700	1.00	ND	PASS
Cypermethrin	0.0231	0.0700	1.00	ND	PASS
Methyl Parathion	0.0058	0.0175	>LOD	ND	PASS
Pentachloronitrobenzene	0.0231	0.0700	0.20	ND	PASS

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Foreign Material Analysis PASS

Analytical Technique: **Digital Microscopy**
Instrumentation: **HM16**
Method: **SOP-010**
Analysis Performed: **12/09/22**
Panel Completed: **12/09/22**

Analyte	Action Limit	Results	
Sand, Soil, Cinders, or Dirt	> 1/4 total sample area	ND	**PASS**
Mold	> 1/4 total sample area	ND	**PASS**
Insect Fragments, Hairs, or Mammalian Excreta	> 1 count per 3.0 grams	ND	**PASS**
Imbedded Foreign Material	> 1/4 total sample area	ND	**PASS**

Water Activity Analysis PASS

Analytical Technique: **Vapor Pressure Ratio**
Instrumentation: **HC2**
Method: **SOP-007**
Analysis Performed: **12/09/22**
Panel Completed: **12/09/22**

Analyte	Detection Range (a_w)	Action Limit (a_w)	Results (a_w)	
Water Activity	0.25 - 1.0	0.85	0.4440	**PASS**

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