



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794

**Report Number:** 24-002725/D001.R001  
**Report Date:** 03/29/2024  
**Purchase Order:**  
**Received:** 03/11/24 02:25 PM



24007310

### Cover Letter

Malama Mushrooms  
74-5587 Alapa Street  
Kailua Kona Hawaii 96740  
United States of America (USA)

Dear Benjamin Lillibridge,

Enclosed please find Columbia Laboratories analytical report for samples received as order number 24-002725 on 03/11/2024 at 14:25. Should you have any questions about this report or any other matter, please do not hesitate to contact us. We are here to help you.

Thank you for allowing Columbia Laboratories to be of service to you, we appreciate your business.

Sincerely,

Derrick Tanner  
General Manager



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794

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This is an amended version of report# 24-002725/D001.R000.

Reason: Added missing pesticide panel results

**Customer:** Malama Mushrooms  
74-5587 Alapa Street  
Kailua Kona Hawaii 96740  
United States of America (USA)

**Sample ID:** 8 Mushroom

**Sample Matrix:** Powder

**Laboratory ID:** 24-002725-0001-00

**Evidence of Cooling:** No

**Temp:** 19.3 °C

### Sample Results

#### Metals

##### Heavy Metals Profile A

Analyte	Result	Units	LOQ	Analyzed	Method	Notes
Arsenic	0.0736	mg/kg	0.0184	03/14/24	AOAC 2013.06 (mod.) <sup>p</sup>	
Cadmium	0.198	mg/kg	0.0184	03/14/24	AOAC 2013.06 (mod.) <sup>p</sup>	
Lead	0.146	mg/kg	0.0184	03/14/24	AOAC 2013.06 (mod.) <sup>p</sup>	
Mercury	0.0164	mg/kg	0.00922	03/14/24	AOAC 2013.06 (mod.) <sup>p</sup>	

#### Microbiology

##### Micro Profile X

Analyte	Result	Units	LOQ	Analyzed	Method	Notes
Aerobic Plate Count	< LOQ	cfu/g	100	03/15/24	AOAC 990.12 (Petrifilm) <sup>p</sup>	
E.coli	< LOQ	cfu/g	100	03/15/24	AOAC 991.14 (Petrifilm) <sup>p</sup>	
Total Coliforms	< LOQ	cfu/g	100	03/15/24	AOAC 991.14 (Petrifilm) <sup>p</sup>	
Staphylococcus aureus	< LOQ	cfu/g	100	03/14/24	AOAC 2003.07 <sup>p</sup>	
Mold (RAPID Petrifilm)	< LOQ	cfu/g	100	03/16/24	AOAC 2014.05 (RAPID) <sup>p</sup>	
Yeast (RAPID Petrifilm)	< LOQ	cfu/g	100	03/16/24	AOAC 2014.05 (RAPID) <sup>p</sup>	
Listeria spp.	Negative	/25g		03/14/24	AOAC 2019.10 <sup>b</sup> <sub>1</sub>	
Salmonella spp. by PCR	Negative	/25g		03/14/24	AOAC 2020.02 <sup>b</sup> <sub>2</sub>	
EHEC including STEC	Negative	/25g		03/14/24	AOAC RI 121806 <sup>b</sup> <sub>3</sub>	

- 1) GENE-UP® Assay  
2) GENE-UP® Assay  
3) GENE-UP® Assay, Enterohemorrhagic Escherichia coli

#### Nutrition

##### Beta-Glucan Profile (Yeast & Mushroom)

Analyte	Result	Units	LOQ	Analyzed	Method	Notes
Beta-glucan	360	mg/g	1.0	03/28/24	Novel Method <sub>4</sub>	SU19

- 4) Megazyme - 1,3:1,6 Beta-Glucan



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24007310  
**Pesticides**

**Multi-Residue Pesticide Profile**

Analyte	Result	Units	Analyzed	Method	Notes
Multi-Residue Pesticide Profile	< LOQ for all analytes	mg/kg	03/18/24	AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>	

**Abbreviations**

**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

**Glossary of Qualifiers**

SU19: Analysis performed by American Testing Lab, Inc. San Diego, California

<sup>p</sup> = ISO/IEC 17025:2017 accredited method.

**Units of Measure**

- /25g = Per 25g
- cfu/g = Colony forming units per gram
- mg/g = Milligram per gram
- mg/kg = Milligram per kilogram = parts per million (ppm)

Approved Signatory

Derrick Tanner  
General Manager

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**P2220 Multi-Residue Pesticide Profile**

Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)
1, NAA	0.01	Bromoxynil	0.01	Cychoxydim	0.01	Disulfoton sulfoxide	0.01
2,4,5-T	0.01	Bromuconazole	0.01	Cyflumetofen	0.01	Dithianon	0.01
2,4,5-TP	0.01	Bupirimate	0.01	Cyfluthrin	0.03	Dithiopyr	0.01
2,4-D	0.01	Buprofezin	0.01	Cyhalothrin, lambda	0.01	Diuron	0.01
2,4-DB	0.01	Butachlor	0.01	Cymoxanil	0.01	DNOC	0.01
2,4-DP (Dichlorprop)	0.01	Butoxy carb	0.01	Cypermethrin	0.01	Edifenphos	0.01
Abamectin (Avermectin)	0.01	Butoxycarboxim	0.01	Cyprodinil	0.01	Endosulfan (α isomer)	0.02
Acephate	0.02	Butralin	0.02	Cyromazine	0.01	Endosulfan (β isomer)	0.02
Acequinocyl	0.01	Butylate	0.01	DCPMU	0.01	Endosulfan sulfate	0.01
Acetamiprid	0.01	Cadusafos	0.01	DDD, o,p'-	0.01	Endrin	0.02
Acetochlor	0.02	Captafol	0.1	DDD, p,p'-	0.01	Endrin aldehyde	0.02
Acibenzolar-s-methyl	0.01	Captan	0.02	DDE, o,p'-	0.01	EPN	0.01
Acifluorfen	0.01	Carbaryl	0.01	DDE, p,p'-	0.01	EPTC	0.01
Acrinathrin	0.01	Carbendazim	0.01	DDT, o,p'-	0.01	Esfenvalerate/Fenvalerate	0.02
Afidopyropen	0.01	Carbofuran	0.01	DDT, p,p'-	0.01	Etaconazole	0.01
Alachlor	0.02	Carbofuran, 3-hydroxy	0.01	DEF (Tribufos)	0.01	Ethaboxam	0.01
Aldicarb	0.01	Carbophenothion	0.01	Deltamethrin	0.01	Ethalfuralin	0.01
Aldicarb sulfone (Aldoxycarb)	0.01	Carbophenothion methyl	0.01	Demeton-S	0.02	Ethiofencarb	0.01
Aldicarb-sulfoxide	0.01	Carboxin	0.01	Demeton-S methyl-sulfone	0.02	Ethion	0.01
Aldrin	0.01	Carfentrazone-ethyl	0.01	Demeton-s-methyl	0.02	Ethirimol	0.01
Ametoctradin	0.01	Chlorantraniliprole	0.01	Desmedipham	0.01	Ethofumesate	0.01
Ametryn	0.01	Chlordane, cis-	0.01	Diallate	0.01	Ethoprophos	0.01
Aminocyclopyrachlor	0.01	Chlordane, trans-	0.01	Diazinon	0.01	Ethoxyquin	0.01
Anilazine	0.03	Chlordimeform	0.01	Diazoxon	0.01	Etofenprox	0.01
Aspon	0.01	Chlorfenapyr	0.02	Dicamba (Banvel)	0.01	Etoxazole	0.01
Asulam	0.01	Chlorfenson (Ovex)	0.01	Dichlobenil	0.01	Etridiazole	0.01
Atrazine	0.01	Chlorfenvinphos	0.01	Dichlofenthion	0.01	Etrimfos	0.01
Atrazine-desethyl	0.01	Chlorimuron-ethyl	0.01	Dichlofluanid	0.01	Famoxadone	0.02
Azadirachtin	0.01	Chlornitrofen (CNP)	0.02	Dichlorobenzamide	0.01	Famphur	0.01
Azinphos-ethyl	0.01	Chlorobenzilate	0.01	Dichlorvos	0.01	Fenamidone	0.01
Azinphos-methyl	0.01	Chloroneb	0.01	Diclobutrazol	0.01	Fenamiphos	0.01
Azoxystrobin	0.01	Chlorothalonil	0.04	Diclofop (acid)	0.01	Fenamiphos Sulfone	0.01
Benalaxyl	0.01	Chlorpropham (CIPC)	0.01	Diclofop-methyl	0.01	Fenamiphos Sulfoxide	0.01
Bendiocarb	0.01	Chlorpyrifos (ethyl)	0.01	Dicloran	0.04	Fenarimol	0.01
Benfluralin	0.01	Chlorpyrifos-methyl	0.01	Dicofof, p,p'-/o,p'-	0.02	Fenazaquin	0.01
Benoxacor	0.01	Chlorsulfuron	0.01	Dicrotophos	0.01	Fenbuconazole	0.01
Bensulide	0.01	Chlorthal-dimethyl (Dacthal)	0.01	Dieldrin	0.01	Fenbutatin oxide	0.01
Bentazon	0.01	Chlorthion	0.02	Diethofencarb	0.01	Fenchlorphos	0.01
Benzovindiflupyr	0.01	Chlorthiophos	0.01	Diethyltoluamide (DEET)	0.01	Fenchlorphos-oxon	0.01
BHC alpha isomer	0.01	Clethodim	0.01	Difenoconazole	0.01	Fenhexamid	0.01
BHC beta isomer	0.01	Clethodim sulfone	0.01	Diflubenzuron	0.01	Fenitrothion	0.01
BHC delta isomer	0.01	Clethodim sulfoxide	0.01	Diflufenzopyr	0.01	Fenobucarb (Baycarb)	0.01
Bifenazate	0.01	Clofentezine	0.01	Dimethenamid	0.01	Fenoxaprop-P-Ethyl	0.01
Bifenox	0.01	Clomazone	0.01	Dimethoate	0.01	Fenoxycarb	0.01
Bifenthrin	0.01	Clopyralid	0.01	Dimethomorph	0.01	Fenpropathrin	0.01
Binapacryl	0.04	Clothianidin	0.01	Diniconazole	0.01	Fenpyroximate	0.01
Bioresmethrin	0.01	Coumaphos	0.01	Dinocap	0.01	Fenson	0.02
Bitertanol	0.02	Crotoxypfos	0.01	Dinoseb (Dinitro)	0.01	Fensulfothion	0.01
Boscalid	0.01	Cyanazine	0.01	Dinotefuran	0.01	Fenthion	0.01
Broflanilide	0.01	Cyanofenphos	0.01	Dioxathion	0.01	Fenuron	0.01
Bromacil	0.02	Cyanophos	0.04	Diphenamid	0.01	Fipronil	0.01
Bromophos-methyl	0.01	Cyantraniliprole	0.01	Diphenylamine (DPA)	0.01	Fonicamid	0.01
Bromophos-ethyl	0.02	Cyazofamid	0.01	Disulfoton	0.02	Fluzifop	0.01
Bromopropylate	0.01	Cyoclate	0.01	Disulfoton sulfone	0.01	Fluzinam	0.01

 LOQ= Limit of Quantitation  
 mg/kg= milligram per kilogram (ppm)



**P2220 Multi-Residue Pesticide Profile**

Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)
Fluchloralin	0.01	Isufenphos-OA	0.01	Naled	0.01	Pirimisulfuron-Methyl	0.01
Flucythrinate	0.03	Isfetamid	0.01	Napropamide	0.01	Prallethrin	0.01
Fludioxonil	0.01	Isoprocarb	0.01	Neburon	0.01	Prochloraz	0.01
Flufenacet	0.01	Isopropalin	0.01	Nicosulfuron	0.01	Procymidone	0.01
Flumetsulam	0.01	Isoprothiolane	0.01	Nitrapyrin	0.02	Prodiamine	0.01
Flumioxazin	0.01	Isoproturon	0.01	Nitrofen	0.02	Profenofos	0.01
Fluometuron	0.01	Isoxaben	0.01	Norflurazon	0.01	Profuralin	0.01
Fluopicolide	0.01	Isoxaflutole	0.01	Novaluron	0.01	Promecarb	0.01
Fluopyram	0.01	Kresoxim-methyl	0.01	Nuarimol	0.02	Prometon	0.01
Fluoxastrobin	0.01	Lactofen	0.02	Omethoate	0.01	Prometryne	0.01
Flupyradifurone	0.01	Lenacil	0.01	O-Phenylphenol	0.01	Pronamide (Propyzamide)	0.01
Fluprimidol	0.01	Lindane	0.01	Oryzalin	0.01	Propachlor	0.01
Fluridone	0.01	Linuron	0.01	Oxadiazon	0.01	Propamocarb	0.01
Fluroxypyr (free acid)	0.01	Malaoxon (Malathion-o-analog)	0.01	Oxadixyl	0.01	Propanil	0.01
Flusilazol	0.01	Malathion	0.01	Oxamyl	0.01	Propargite	0.01
Fluthiacet Methyl	0.01	Mandipropamid	0.01	Oxamyl-oxime	0.01	Propazine	0.01
Flutolanil	0.01	MCPA	0.01	Oxathiapiprolin	0.01	Propetamphos	0.01
Flutriafol	0.01	MCPB	0.01	Oxychlorthane	0.01	Propham	0.01
Fluvalinate -tau	0.01	MCPP (Mecoprop)	0.01	Oxydemeton-Methyl	0.01	Propiconazole	0.01
Fluxapyroxad	0.01	MCPP-P	0.01	Oxyfluorfen	0.01	Propoxur	0.01
Folpet	0.02	Mecarbam	0.01	Oxythioquinox	0.02	Propoxycarbazone sodium	0.01
Fomesafen	0.01	Mefentrifluconazole	0.01	Paclobotrazol	0.01	Prosulfuron	0.01
Fonofos	0.01	Mepanipyrim	0.01	Paraoxon-ethyl	0.01	Prothioconazole	0.01
Foramsulfuron	0.01	Mesosulfuron Methyl	0.01	Paraoxon-methyl	0.01	Prothiofos	0.01
Forchlorfenuron	0.01	Mesotrione	0.01	Parathion-ethyl	0.01	Pydiflumetofen	0.01
Formetanate	0.01	Metalaxyl/Mefenoxam	0.01	Parathion-methyl	0.03	Pymetrozine	0.01
Furathiocarb	0.01	Metalddehyde	0.01	PCP (Pentachlorophenol)	0.01	Pyraclostrobin	0.01
Halosulfuron-methyl	0.01	Metconazole	0.01	Penconazole	0.01	Pyraflufen-ethyl	0.01
Haloxyfop (free acid)	0.01	Methacrifos	0.01	Pendimethalin	0.01	Pyrazophos	0.01
Heptachlor	0.01	Methamidophos	0.01	Penflufen	0.01	Pyrethrins	0.01
Heptachlor epoxide	0.01	Methidathion	0.01	Pentachloroaniline (PCA)	0.01	Pyridaben	0.01
Hexachlorobenzene (HCB)	0.01	Methiocarb	0.01	Pentachloroanisole	0.01	Pyridate	0.01
Hexaconazole	0.01	Methiocarb sulfone	0.01	Pentachlorobenzene (PCB)	0.01	Pyrifluquinazon	0.01
Hexazinone (Velpar)	0.01	Methiocarb sulfoxide	0.01	Pentachlorothioanisole (PCTA)	0.03	Pyrimethanil	0.01
Hexythiazox	0.01			Penthiopyrad	0.01	Pyriproxifen	0.01
Hydroprene	0.01	Methomyl	0.01	Permethrin	0.01	Pyroxasulfone	0.01
Imazalil	0.01	Methoxychlor	0.01	Perthane	0.01	Pyroxulam	0.01
Imazamox	0.01	Methoxyfenozide	0.01	Phenmedipham	0.01	Quinalphos	0.01
Imazapic	0.01	Metobromuron	0.01	Phenothrin	0.01	Quinclorac	0.01
Imazapyr	0.01	Metolachlor	0.01	Phenthoate	0.01	Quinoxifen	0.01
Imazaquin	0.01	Metolcarb	0.01	Phorate	0.01	Quintozene(PCNB)	0.01
Imazethapyr	0.01	Metrafenone	0.01	Phorate OA	0.01	Quizalofop (free acid)	0.01
Imidacloprid	0.01	Metribuzin	0.01	Phorate Sulfone	0.01	Resmethrin	0.01
Imidoxone (Phosmet-Oxon)	0.01	Metsulfuron-methyl	0.01	Phorate Sulfoxide	0.01	Rimsulfuron	0.01
Indaziflam	0.01	Mevinphos	0.01	Phosalone	0.01	Rotenone	0.01
Indoxacarb	0.01	Mexacarbate	0.01	Phosmet	0.01	S-421	0.01
Iprobenfos	0.01	MGK-264	0.01	Phosphamidon	0.01	Saflufenacil	0.01
Iprodione	0.02	Mirex	0.01	Phoxim	0.01	Sebuthylazine	0.01
Isazophos	0.01	Molinate	0.01	Picloram	0.01	Sedaxane	0.01
Isobenzan	0.01	Monocrotophos	0.01	Pinoxaden	0.01	Sethoxydim	0.01
Isocarbophos	0.01	Monolinuron	0.01	Piperonyl Butoxide	0.01	Siduron	0.01
Isodrin	0.01	Myclobutanil	0.01	Pirimicarb	0.01	Simazine	0.01
Isufenphos	0.01	N-desethyl-pirimiphos-methyl	0.01	Pirimiphos-Ethyl	0.01	Simetryn	0.01
Isufenphos-methyl	0.01	N-dimethyl-N-phenyl Sulfonamide	0.01	Pirimiphos-Methyl	0.01	Spinetoram	0.01

LOQ= Limit of Quantitation  
mg/kg= milligram per kilogram (ppm)



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**P2220 Multi-Residue Pesticide Profile**

Analyte	LOQ (mg/kg)	Analyte	LOQ (mg/kg)
Spinosad (α, β isomers)	0.01	Trifloxysulfuron -sodium	0.01
Spirodiclofen	0.01	Triflumizole	0.01
Spiromesifen	0.01	Trifluralin	0.01
Spirotetramat	0.01	Triflusaluron-methyl	0.01
Spirotetramat-enol	0.01	Triforin	0.01
Spiroxamine	0.01	Trinexapac (acid)	0.01
Sulfallate	0.01	Trinexapac Ethyl	0.01
Sulfentrazone	0.03	Triticonazole	0.01
Sulfometuron-methyl	0.01	Vinclozolin	0.01
Sulfosulfuron	0.01	Zoxamide	0.01
Sulfotep	0.01		
Sulfoxaflor	0.01		
Sulprofos	0.01		
Tebuconazole	0.01		
Tebufenozide	0.01		
Tebuthiuron	0.01		
Tecnazene	0.01		
Tefluthrin	0.01		
Tembotrione	0.01		
Terbacil	0.04		
Terbufos	0.01		
Terbufos sulfone	0.01		
Terbufos sulfoxide	0.01		
Terbutylazine	0.01		
Terbutryn	0.01		
Tertrachlorvinphos	0.01		
Tetraconazole	0.01		
Tetradifon	0.01		
Tetramethrin	0.01		
Tetrasul	0.01		
Thiabendazole	0.01		
Thiabendazole, 5-hydroxy	0.01		
Thiacloprid	0.01		
Thiamethoxam	0.01		
Thifensulfuron-methyl	0.01		
Thiobencarb (benthiocarb)	0.01		
Thiodicarb	0.01		
Thiometon	0.02		
Thionazin	0.01		
Thiophanate-methyl	0.01		
Tolclofos-methyl	0.01		
Tolfenpyrad	0.01		
Tolyfluanid	0.01		
Topramezone	0.01		
Tralkoxydim	0.01		
Triadimefon	0.01		
Triadimenol	0.01		
Tri-allate	0.01		
Triasulfuron	0.01		
Triazophos	0.01		
Tribenuron-methyl	0.01		
Trichlorfon	0.01		
Triclopyr	0.02		
Trifloxystrobin	0.01		

LOQ= Limit of Quantitation  
 mg/kg= milligram per kilogram (ppm)

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Food and Feed Cha  
Document Control ID: 2  
Effective: 05/07

MALAMAMUSHROOM 24-002725



Malama Mushrooms

Company: <u>Malama Mushrooms</u>			<b>Testing requested</b>				PO Number: _____	
Contact: <u>Benjamin Lillibridge</u>							Project Number: _____	
Street: <u>74-5587 Alapa St. Unit 105</u>			Beta-Glucans - N401	MicrobesX - M9000	Heavy Metals - N1700	Pesticides - P2220	Project Name: _____	
City: <u>Kailua-Kona</u> State: <u>HI</u> Zip: <u>96740</u>							Report Instructions: _____	
<input checked="" type="checkbox"/> Email Results: <u>Benjamin@malamamushrooms.com</u>							Turnaround time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush * <input type="checkbox"/> Priority Rush *	
Phone: (808) <u>9605325</u> <input type="checkbox"/> Fax Results: (____) _____							*Ask for availability	
Billing (if different): _____							Sampled by: <u>Ben</u>	
Lab Smp#	Client Sample Identification	Date Collected					Sample Type	Comments
	8 Mushroom	03/06/24	X	X	X	X	Powder	
* Relinquished by (Signature)	Date	Time	Received by (Signature)			Date	Time	Lab Use Only
Benjamin Lillibridge	03/06/24		slm			3/11/24	14:25	<input type="checkbox"/> Shipped Via: <u>USPS</u> or <input type="checkbox"/> Client drop off Evidence of cooling: <input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No - Temp (°C): <u>19.3</u> Sample in good condition: <input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No <input type="checkbox"/> Cash   <input type="checkbox"/> Check   <input type="checkbox"/> CC   <input type="checkbox"/> Net: _____ Prelog storage: _____

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service. By signing "Relinquished by" you are agreeing to these terms

12423 NE Whitaker Way  
Portland, OR 97230

P: (503) 254-1794 | Fax: (503) 254-1452  
Info@columbiaboratories.com

Page \_\_\_\_ of \_\_\_\_  
www.columbiaboratories.com

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