



DEA No. RA0571996  
FL License # CMTL-0003  
CLIA No. 10D1094068

# Certificate of Analysis

R&D

**3 TALL PINES LLC**  
W6326 COUNTY ROAD Z  
PLYMOUTH  
PLYMOUTH, WI 53073

Batch # D9-DI-072022  
Batch Date: 2022-07-20  
Extracted From: Hemp

Test Reg State: Florida

Order # 3TA220817-010002  
Order Date: 2022-08-17  
Sample # AADG699

Sampling Date: 2022-08-19  
Lab Batch Date: 2022-08-19  
Completion Date: 2022-08-26

Initial Gross Weight: 102.300 g



Product Image

Potency Tested  
 Heavy Metals Passed  
 2,3-Butanedione Passed  
 Mycotoxins Passed  
 Pesticides Passed  
 Residual Solvents Passed  
 Pathogenic Microbiology Passed  
 Listeria Monocytogenes Passed  
 Vitamin E Passed

**Potency 10** Tested SOP13.001 (LCUV)

Specimen Weight: 46.670 mg

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBD	1000.000	5.40E-5	0.0015	740.7600	74.0760
Delta-9 THC	1000.000	1.30E-5	0.0015	185.2800	18.5280
CBDV	1000.000	6.50E-5	0.0015	3.6400	0.3640
CBC	1000.000	1.80E-5	0.0015	3.0300	0.3030
CBG	1000.000	2.48E-4	0.0015	1.7200	0.1720
CBN	1000.000	1.40E-5	0.0015	0.3600	0.0360
CBDA	1000.000	1.00E-5	0.0015	<LOQ	<LOQ
CBGA	1000.000	8.00E-5	0.0015	<LOQ	<LOQ
THCA	1000.000	3.20E-5	0.0015	<LOQ	<LOQ
THCV	1000.000	7.00E-6	0.0015	<LOQ	<LOQ

**Potency Summary**

Total THC 18.528%	Total CBD 74.076%
Total CBG 0.172%	Total CBN 0.036%
Other Cannabinoids 0.667%	Total Cannabinoids 93.479%

**Pathogenic Microbiology** Passed SOP13.019 (Micro Array)  
**SAE (MicroArray)**

Specimen Weight: 1048.400 mg  
Dilution Factor: 1.000

Analyte	Result (cfu/g)	Analyte	Result (cfu/g)
Aspergillus flavus	Absence in 1g	Aspergillus terreus	Absence in 1g
Aspergillus fumigatus	Absence in 1g	Salmonella	Absence in 1g
Aspergillus niger	Absence in 1g	STEC E. Coli	Absence in 1g

*Xueli Gao*  
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Lab Toxicologist

*Aixia Sun*  
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Lab Director/Principal Scientist



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Initial Gross Weight: 102.300 g

**Pesticides FL V4** **Passed**  
SOP13.007  
(LCMS/GCMS)

Specimen Weight: 257.300 mg

Dilution Factor: 5.830

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	2.8800E-1	28.23	300	<LOQ	Fludioxonil	1.7400E+0	48	3000	<LOQ
Acephate	2.3000E-2	30	3000	<LOQ	Hexythiazox	4.9000E-2	30	2000	<LOQ
Acequinocyl	9.5640E+0	48	2000	<LOQ	Imazalil	2.4800E-1	30	100	<LOQ
Acetamiprid	5.2000E-2	30	3000	<LOQ	Imidacloprid	9.4000E-2	30	3000	<LOQ
Aldicarb	2.6000E-2	30	100	<LOQ	Kesoxim Methyl	4.2000E-2	30	1000	<LOQ
Azoxystrobin	8.1000E-2	10	3000	<LOQ	Malathion	8.2000E-2	30	2000	<LOQ
Bifenazate	1.4150E+0	30	3000	<LOQ	Metaxyl	8.1000E-2	10	3000	<LOQ
Bifenthrin	4.3000E-2	30	500	<LOQ	Methiocarb	3.2000E-2	30	100	<LOQ
Boscalid	5.5000E-2	10	3000	<LOQ	Methomyl	2.2000E-2	30	100	<LOQ
Captan	6.1200E+0	30	3000	<LOQ	methyl-Parathion	1.7100E+0	10	100	<LOQ
Carbaryl	2.2000E-2	10	500	<LOQ	Mevinphos	2.1500E+0	10	100	<LOQ
Carbofuran	3.4000E-2	10	100	<LOQ	Myclobutanil	1.0290E+0	30	3000	<LOQ
Chlorantraniliprole	3.3000E-2	10	3000	<LOQ	Naled	9.5000E-2	30	500	<LOQ
Chloridane	1.0000E+1	10	100	<LOQ	Oxamyl	2.5000E-2	30	500	<LOQ
Chlorfenapyr	3.4000E-2	30	100	<LOQ	Pacllobutrazol	6.5000E-2	30	100	<LOQ
Chlomequat Chloride	1.0800E-1	10	3000	<LOQ	Pentachloronitrobenzene	1.3200E+0	10	200	<LOQ
Chlorpyrifos	3.5000E-2	30	100	<LOQ	Permethrin	3.4300E-1	30	1000	<LOQ
Clofentezine	1.1900E-1	30	500	<LOQ	Phosmet	8.2000E-2	30	200	<LOQ
Coumaphos	3.7700E+0	48	100	<LOQ	Piperonylbutoxide	2.9000E-2	30	3000	<LOQ
Cyfluthrin	3.1100E+0	30	1000	<LOQ	Prallethrin	7.9800E-1	30	400	<LOQ
Cypermethrin	1.4490E+0	30	1000	<LOQ	Propiconazole	7.0000E-2	30	1000	<LOQ
Daminozide	8.8500E-1	30	100	<LOQ	Propoxur	4.6000E-2	30	100	<LOQ
Diazinon	4.4000E-2	30	200	<LOQ	Pyrethrins	2.3593E+1	30	1000	<LOQ
Dichlorvos	2.1820E+0	30	100	<LOQ	Pyridaben	3.2000E-2	30	3000	<LOQ
Dimethoate	2.1000E-2	30	100	<LOQ	Spinetoram	8.0000E-2	10	3000	<LOQ
Dimethomorph	5.8300E+0	48	3000	<LOQ	Spinosad	8.8000E-2	30	3000	<LOQ
Ethoprophos	3.6000E-1	30	100	<LOQ	Spiromesifen	2.6100E-1	30	3000	<LOQ
Etofenprox	1.1600E-1	30	100	<LOQ	Spirotetramat	8.9000E-2	30	3000	<LOQ
Etoxazole	9.5000E-2	30	1500	<LOQ	Spiroxamine	1.3100E-1	30	100	<LOQ
Fenhexamid	5.1000E-1	10	3000	<LOQ	Tebuconazole	6.7000E-2	30	1000	<LOQ
Fenoxycarb	1.0700E-1	30	100	<LOQ	Thiacloprid	6.4000E-2	30	100	<LOQ
Fenpyroximate	1.3800E-1	30	2000	<LOQ	Thiamethoxam	5.0000E-2	30	1000	<LOQ
Fipronil	1.0700E-1	30	100	<LOQ	Trifloxystrobin	3.7000E-2	30	3000	<LOQ
Fonicamid	5.1700E-1	30	2000	<LOQ					

**2,3-butanedione(Diacetyl)** **Passed**  
SOP13.039  
(GCMS)

Specimen Weight: 308.600 mg

Dilution Factor: 500.000

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
2,3-Butanedione	.024	0.024	<LOQ

**Listeria Monocytogenes** **Passed**  
SOP13.032  
(qPCR)

Specimen Weight: 990.970 mg

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g

**Vitamin E (Tocopheryl Acetate)** **Passed**  
SOP13.007 (LC-MS)

Specimen Weight: 257.300 mg

Dilution Factor: 5.830

Analyte	LOD (ppb)	Result (ppb)
Vitamin E Acetate	.705	Not Detected

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Initial Gross Weight: 102.300 g

## Residual Solvents - FL (CBD)

Passed  
SOP13.039 (GCMS)

Specimen Weight: 308.600 mg

Dilution Factor: 500.000

Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethane	0.0094	0.16	8	<LOQ	Heptane	0.0013	1.39	5000	60.800
1,2-Dichloroethane	0.0003	0.04	5	<LOQ	Hexane	0.068	1.17	290	<LOQ
Acetone	0.015	2.08	5000	<LOQ	Isopropyl alcohol	0.0048	1.39	500	<LOQ
Acetonitrile	0.06	1.17	410	<LOQ	Methanol	0.0005	0.69	3000	<LOQ
Benzene	0.0002	0.02	2	<LOQ	Methylene chloride	0.0029	2.43	600	<LOQ
Butanes	0.4167	2.5	2000	<LOQ	Pentane	0.037	2.08	5000	<LOQ
Chloroform	0.0001	0.04	60	<LOQ	Propane	0.031	5.83	2100	<LOQ
Ethanol	0.0021	2.78	5000	<LOQ	Toluene	0.0009	2.92	890	<LOQ
Ethyl Acetate	0.0012	1.11	5000	<LOQ	Total Xylenes	0.0001	2.92	2170	<LOQ
Ethyl Ether	0.0049	1.39	5000	<LOQ	Trichloroethylene	0.0014	0.49	80	<LOQ
Ethylene Oxide	0.0038	0.1	5	<LOQ					

## Mycotoxins

Passed  
SOP13.007 (LCMS)

Specimen Weight: N/A Dilution Factor: 5.830

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	3.0400E-1	6	20	<LOQ	Aflatoxin G2	2.7100E-1	6	20	<LOQ
Aflatoxin B2	7.7000E-2	6	20	<LOQ	Ochratoxin A	7.5400E-1	12	20	<LOQ
Aflatoxin G1	3.0400E-1	6	20	<LOQ					

## Heavy Metals

Passed  
SOP13.048 (ICP-MS)

Specimen Weight: 254.870 mg

Dilution Factor: 196

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	4.83	100	1500	<LOQ	Lead (Pb)	11.76	100	500	<LOQ
Cadmium (Cd)	.64	100	500	<LOQ	Mercury (Hg)	.58	100	3000	<LOQ

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Xueli Gao Lab Toxicologist  
Ph.D., DABT

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)



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