Certificate of Analysis

Customer Information

Client: Steding and Sons Mercantile
Attention: (737) 895-2303
Address: 1501 Panther Loop #7A
Pflugerville, TX 78660

Testing Facility

Lab: Cora Science, LLC
Address 8000 Anderson Square, STE 113
Austin, Texas 78757
Contact: info@corascience.com
(512) 856-5007

Sample Image(s)



Sample Information

Name: Texas Red
Lot Number: TR151930
Description: Finely ground plant material
Condition: Good
Job ID: ISO08171
Sample ID: I22831
Received: 17SEP2026
Completed: 27OCT2026
Report Date: 03NOV2026

Test Results

Elemental Impurities (ICP-MS) **Method Code: T301** **Tested: 18SEP2026 | 1428**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Arsenic	NMT 2.00	0.287	ug/g	0.006	PASS
Cadmium	NMT 0.82	0.038	ug/g	0.002	PASS
Mercury	NMT 0.40	0.020	ug/g	0.002	PASS
Lead	NMT 1.20	0.580	ug/g	0.002	PASS

Pesticides (GC-MS/MS) **Method Code: T401** **Tested: 24SEP2026 | 1505**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Acephate	NMT 0.1	0.0098	mg/Kg	0.01	PASS
Azinphos-ethyl	NMT 0.1	ND	mg/Kg	0.01	PASS
Azinphos-methyl	NMT 1	ND	mg/Kg	0.01	PASS
Bromophos-ethyl	NMT 0.05	ND	mg/Kg	0.01	PASS
Bromophos-methyl	NMT 0.05	ND	mg/Kg	0.01	PASS
Chlorfenvinphos	NMT 0.5	ND	mg/Kg	0.01	PASS
Deltamethrin	NMT 0.5	ND	mg/Kg	0.01	PASS
Diazinon	NMT 0.5	ND	mg/Kg	0.01	PASS
Dichlofluanid	NMT 0.1	ND	mg/Kg	0.01	PASS
Dichlorvos	NMT 1	ND	mg/Kg	0.02	PASS
Dimethoate (and Omethoate, sum)	NMT 0.1	ND	mg/Kg	0.01	PASS
Omethaote	Report Results	ND	mg/Kg	0.01	N/A
Dithiocarbamates (sum, as CS2)	NMT 2	ND	mg/Kg	0.10	PASS
Dithiocarbamate, manganese	Report Results	ND	mg/Kg	0.05	N/A
Dithiocarbamate, zinc	Report Results	ND	mg/Kg	0.05	N/A

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PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Ethion	NMT 2	ND	mg/Kg	0.01	PASS
Etrimphos	NMT 0.05	ND	mg/Kg	0.01	PASS
Fenchlorphos	NMT 0.1	ND	mg/Kg	0.02	PASS
Fenchlorphos oxon	Report Results	ND	mg/Kg	0.01	N/A
Fenitrothion	NMT 0.5	ND	mg/Kg	0.01	PASS
Fenpropathrin	NMT 0.03	ND	mg/Kg	0.01	PASS
Fensulfothions (sum)	NMT 0.05	ND	mg/Kg	0.04	PASS
Fensulfothion-oxon	Report Results	ND	mg/Kg	0.01	N/A
Fensulfothion-oxonsulfone	Report Results	ND	mg/Kg	0.01	N/A
Fensulfothion-sulfone	Report Results	ND	mg/Kg	0.01	N/A
Fenthions (sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
Fenthion oxon	Report Results	ND	mg/Kg	0.02	N/A
Fenthion oxonsulfone	Report Results	ND	mg/Kg	0.02	N/A
Fenthion oxonsulfoxide	Report Results	ND	mg/Kg	0.02	N/A
Fenthion sulfone	Report Results	ND	mg/Kg	0.02	N/A
Fenthion sulfoxide	Report Results	ND	mg/Kg	0.02	N/A
Flucythrinate	NMT 0.05	ND	mg/Kg	0.01	PASS
Fluvalinate	NMT 0.05	ND	mg/Kg	0.01	PASS
Fonophos	NMT 0.05	ND	mg/Kg	0.01	PASS
Malathion (and oxon, sum)	NMT 1	ND	mg/Kg	0.02	PASS
Malathion oxon	Report Results	ND	mg/Kg	0.01	N/A
Mecarbam	NMT 0.05	ND	mg/Kg	0.01	PASS
Methacriphos	NMT 0.05	ND	mg/Kg	0.01	PASS
Methamidophos	NMT 0.05	ND	mg/Kg	0.01	PASS
Methadathion	NMT 0.2	ND	mg/Kg	0.01	PASS
Monocrotophos	NMT 0.1	ND	mg/Kg	0.01	PASS
Parathion-ethyl (and oxon, sum)	NMT 0.5	ND	mg/Kg	0.02	PASS
Paraoxon ethyl	Report Results	ND	mg/Kg	0.01	N/A
Parathion-methyl (and oxon, sum)	NMT 0.2	ND	mg/Kg	0.02	PASS
Paraoxon methyl	Report Results	ND	mg/Kg	0.01	N/A
Pendimethalin	NMT 0.1	ND	mg/Kg	0.01	PASS
Phosalone	NMT 0.1	ND	mg/Kg	0.01	PASS
Pirimiphos ethyl	NMT 0.05	ND	mg/Kg	0.01	PASS
Pirimphos methyl (and N-desethyl-, sum)	NMT 4	ND	mg/Kg	0.03	PASS
N-desethylpirimiphos methyl	Report Results	ND	mg/Kg	0.02	N/A
Procymidone	NMT 0.1	ND	mg/Kg	0.01	PASS
Profenofos	NMT 0.1	ND	mg/Kg	0.01	PASS
Prothiophos	NMT 0.05	ND	mg/Kg	0.01	PASS
Pyrethrum (sum of following six)	NMT 3	ND	mg/Kg	0.05	PASS
Cinerin I	Report Results	ND	mg/Kg	0.05	N/A
Cinerin II	Report Results	ND	mg/Kg	0.05	N/A
Jasmoline I	Report Results	ND	mg/Kg	0.05	N/A
Jasmoline II	Report Results	ND	mg/Kg	0.05	N/A
Pyrethrin I	Report Results	ND	mg/Kg	0.05	N/A

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PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Pyrethrin II	Report Results	ND	mg/Kg	0.05	N/A
Quinalphos	NMT 0.05	ND	mg/Kg	0.01	PASS
Tetradifon	NMT 0.3	ND	mg/Kg	0.01	PASS
Vinclozolin	NMT 0.4	ND	mg/Kg	0.01	PASS
Aldrin (and Dieldrin, sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
Dieldrin	Report Results	ND	mg/Kg	0.01	N/A
Alachlor	NMT 0.05	ND	mg/Kg	0.01	PASS
Bromopropylate	NMT 3	ND	mg/Kg	0.01	PASS
Chlordanes (sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
cis-Chlordane	Report Results	ND	mg/Kg	0.01	N/A
trans-Chlordane	Report Results	ND	mg/Kg	0.01	N/A
oxy-Chlordane	Report Results	ND	mg/Kg	0.02	N/A
Chlorpyrifos-ethyl	NMT 0.2	ND	mg/Kg	0.01	PASS
Chlorpyrifos-methyl	NMT 0.1	ND	mg/Kg	0.01	PASS
Chlorthal-dimethyl	NMT 0.01	ND	mg/Kg	0.01	PASS
Cyfluthrin	NMT 0.1	ND	mg/Kg	0.02	PASS
lambda-Cyhalothrin	NMT 1	ND	mg/Kg	0.01	PASS
Cypermethrins	NMT 1	ND	mg/Kg	0.02	PASS
DDT (sum of DDT, DDE, DDD)	NMT 1	ND	mg/Kg	0.01	PASS
o,p-DDT	Report Results	ND	mg/Kg	0.01	N/A
p,p-DDT	Report Results	ND	mg/Kg	0.01	N/A
o,p-DDE	Report Results	ND	mg/Kg	0.01	N/A
p,p-DDE	Report Results	ND	mg/Kg	0.01	N/A
o,p-DDD	Report Results	ND	mg/Kg	0.01	N/A
p,p-DDD	Report Results	ND	mg/Kg	0.01	N/A
Dicofol	NMT 0.5	ND	mg/Kg	0.01	PASS
Endosulfans	NMT 3	ND	mg/Kg	0.01	PASS
Endosulfan I	Report Results	ND	mg/Kg	0.01	N/A
Endosulfan II	Report Results	ND	mg/Kg	0.01	N/A
Endosulfan sulfate	Report Results	ND	mg/Kg	0.01	N/A
Endrin	NMT 0.05	ND	mg/Kg	0.01	PASS
Fenvalderate (and esfen-, sum)	NMT 1.5	ND	mg/Kg	0.02	PASS
Esfenvalerate	Report Results	ND	mg/Kg	0.02	N/A
Heptachlor (and epoxide, sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
Heptachlor epoxide (cis/trans)	Report Results	ND	mg/Kg	0.01	N/A
Hexachlorobenzene	NMT 0.1	ND	mg/Kg	0.01	PASS
Hexachlorohexanes (sum)	NMT 0.3	ND	mg/Kg	0.01	PASS
alpha-Hexachlorocyclohexane	Report Results	ND	mg/Kg	0.01	N/A
beta-Hexachlorocyclohexane	Report Results	ND	mg/Kg	0.01	N/A
delta-Hexachlorocyclohexane	Report Results	ND	mg/Kg	0.01	N/A
Lindane	NMT 0.6	ND	mg/Kg	0.01	PASS
Methoxychlor	NMT 0.05	ND	mg/Kg	0.01	PASS
Mirex	NMT 0.01	ND	mg/Kg	0.01	PASS
Pentachloroanisole	NMT 0.01	ND	mg/Kg	0.01	PASS

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PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Permethrins (sum)	NMT 1	ND	mg/Kg	0.01	PASS
cis-Permethrin	Report Results	ND	mg/Kg	0.01	N/A
trans-Permethin	Report Results	ND	mg/Kg	0.01	N/A
Piperonyl butoxide	NMT 3	ND	mg/Kg	0.01	PASS
Quintozene (sum of following two)	NMT 1	ND	mg/Kg	0.09	PASS
Pentachloroaniline	Report Results	ND	mg/Kg	0.02	N/A
Methyl pentachlorophenyl sulfide	Report Results	ND	mg/Kg	0.05	N/A
Tecnazene	NMT 0.05	ND	mg/Kg	0.01	PASS
S-421	NMT 0.02	ND	mg/Kg	0.01	PASS

Mitragyna Alkaloids (UHPLC-DAD) **Method Code: T102** **Tested: 23SEP2026 | 0024**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	MDL
Mitragynine	Report Results	9.59	mg/g	0.15	0.054
7-Hydroxymitragynine	Report Results	ND	mg/g	0.15	0.054
Paynantheine	Report Results	1.62	mg/g	0.15	0.054
Speciogynine	Report Results	1.19	mg/g	0.15	0.054
Speciociliatine	Report Results	3.32	mg/g	0.15	0.054
Component Sum	Report Results	15.7	mg/g	0.15	0.054

Moisture Content **Method Code: T505** **Tested: 22SEP2026 | 1343**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Moisture	Report Results	4.64	%	0.1	N/A

Foreign Matter Inspection **Method Code: T501** **Tested: 23SEP2026 | 0848**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Foreign Matter	NMT 3%	<LOQ	%	0.05	PASS

7-Hydroxymitragynine Limit (0.04%) **Method Code: 813** **Tested: 24SEP2026 | 0411**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
7-Hydroxymitragynine	NMT 400 PPM	10.91	ppm	8.704	PASS

Microbial Examination **Method Code: T005** **Tested: 23SEP2026 | 1300**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Total Aerobic Plate Count	NMT 100,000 CFU/g	1,420	CFU/g	20 CFU/g	PASS
Total Yeast and Mold	NMT 100,000 CFU/g	4,380	CFU/g	20 CFU/g	PASS
Salmonella spp.	Not Detected in 25 g	Not Detected	N/A	1 CFU/25g	PASS
Shiga-toxin producing E. coli	Not Detected in 25 g	Not Detected	N/A	1 CFU/25g	PASS

Mitragynine Derivatives [UHPLC-MS] **Method Code: T191** **Tested: 24SEP2026 | 0411**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	MDL
7-hydroxymitragynine	Report Results	10.4	ug/g	8.3	2.8
9-hydroxycorynantheidine	Report Results	13.9	ug/g	8.3	2.8
Mitragynine Pseudoindoxyl	Report Results	ND	ug/g	8.3	2.8

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PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	MDL
7-acetoxymitragynine	Report Results	ND	ug/g	8.3	2.8
Dihydro-7-hydroxymitragynine (MGM-15)	Report Results	ND	ug/g	8.3	2.8
10-fluoro-dihydro-7-hydroxymitragynine (MGM-16)	Report Results	ND	ug/g	8.3	2.8
Component Sum	Report Results	24.2	ug/g	8.3	2.8

Aspergillus Detection [qPCR] **Method Code: T081** **Tested: 24SEP2026 | 1713**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Aspergillus Detection (A. fumigatus, A. flavus, A. niger, A. terreus)	Not Detected in 25 g	Not Detected	N/A	10CFU/ 25g	PASS

7-Hydroxymitragynine Relative Alkaloid Ratio **Method Code: T102/T191** **Tested: 24SEP2026 | 0411**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
7-Hydroxymitragynine	Report Results	0.066	% of Total Alkaloids	N/A	N/A

Mycotoxins **Method Code: T403** **Tested: 27SEP2026 | 1434**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Aflatoxin B1	Report Results	ND	mg/Kg	0.001	N/A
Aflatoxin B2	Report Results	ND	mg/Kg	0.001	N/A
Aflatoxin G1	Report Results	ND	mg/Kg	0.001	N/A
Aflatoxin G2	Report Results	ND	mg/Kg	0.001	N/A
Ochratoxin	Report Results	ND	mg/Kg	0.005	N/A

Expanded Pesticides **Method Code: T405** **Tested: 27OCT2026 | 2051**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Abamectin	Report Results	ND	mg/Kg	0.5	N/A
Acequinocyl	Report Results	ND	mg/Kg	0.05	N/A
Acetamiprid	Report Results	ND	mg/Kg	0.05	N/A
Aldicarb	Report Results	ND	mg/Kg	0.1	N/A
Azoxystrobin	Report Results	ND	mg/Kg	0.05	N/A
Boscalid	Report Results	ND	mg/Kg	0.05	N/A
Carbaryl	Report Results	ND	mg/Kg	0.05	N/A
Carbofuran	Report Results	ND	mg/Kg	0.05	N/A
Chlorfenapyr	Report Results	ND	mg/Kg	0.1	N/A
Daminozide	Report Results	ND	mg/Kg	0.1	N/A
Ethoprophos	Report Results	ND	mg/Kg	0.05	N/A
Etofenprox	Report Results	ND	mg/Kg	0.1	N/A
Fenoxycarb	Report Results	ND	mg/Kg	0.05	N/A
Flonicamid	Report Results	ND	mg/Kg	0.1	N/A
Fludioxinil	Report Results	ND	mg/Kg	0.1	N/A
Hexythiazox	Report Results	ND	mg/Kg	0.05	N/A
Imazalil	Report Results	ND	mg/Kg	0.05	N/A
Imidacloprid	Report Results	ND	mg/Kg	0.05	N/A
Metalaxyl	Report Results	ND	mg/Kg	0.1	N/A

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PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Methiocarb	Report Results	ND	mg/Kg	0.05	N/A
Methomyl	Report Results	ND	mg/Kg	0.05	N/A
Myclobutanil	Report Results	ND	mg/Kg	0.1	N/A
Oxamyl	Report Results	ND	mg/Kg	0.1	N/A
Paclobutrazol	Report Results	ND	mg/Kg	0.1	N/A
Phosmet	Report Results	ND	mg/Kg	0.1	N/A
Propiconazole	Report Results	ND	mg/Kg	0.05	N/A
Propoxur	Report Results	ND	mg/Kg	0.05	N/A
Pyridaben	Report Results	ND	mg/Kg	0.05	N/A
Spinosad A	Report Results	ND	mg/Kg	0.05	N/A
Spiromesifen	Report Results	ND	mg/Kg	0.1	N/A
Spiroxamine	Report Results	ND	mg/Kg	0.1	N/A
Tebuconazole	Report Results	ND	mg/Kg	0.05	N/A
Thiacloprid	Report Results	ND	mg/Kg	0.05	N/A
Thiamethoxam	Report Results	ND	mg/Kg	0.05	N/A
Trifloxystrobin	Report Results	ND	mg/Kg	0.05	N/A
Bifenazate	Report Results	ND	mg/Kg	0.05	N/A
Bifenthrin	Report Results	ND	mg/Kg	0.05	N/A
Chlorantraniliprole	Report Results	ND	mg/Kg	0.1	N/A
Clofentezine	Report Results	ND	mg/Kg	0.05	N/A
Etoxazole	Report Results	ND	mg/Kg	0.05	N/A
Fenpyroximate	Report Results	ND	mg/Kg	0.05	N/A
Fipronil	Report Results	ND	mg/Kg	0.2	N/A
Kresoxim-methyl	Report Results	ND	mg/Kg	0.1	N/A
MGK-264	Report Results	ND	mg/Kg	0.1	N/A
Naled	Report Results	ND	mg/Kg	0.2	N/A
Prallethrin	Report Results	ND	mg/Kg	0.05	N/A
Spirotetramat	Report Results	ND	mg/Kg	0.1	N/A

Additional Report Notes

T813 results are reported on a dry-weight basis (DWB). Reported values converted from T191 results using the laboratory-measured moisture content by T505 for each sample:
DWB w/w% = (as-received w/w%) ÷ (1 − moisture%/100). T401, T403, and T405 performed by a registered outsourcing facility.

Revision History

Report ID: 94ebb246-a69f-5033-a522-2d6f65b69aa2
rev 00 - Initial release.
rev 01 - Added T401 and T403 results.
rev 02 - Added T405 results.

Abbreviations

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ID: identification, **N/A:** not applicable, **LOQ:** limit of quantitation, **CFU:** colony forming units, **w/w%:** weight by weight percent, **mg:** milligrams, **g:** grams, **ug:** micrograms, **mL:** milliliters, **ND:** not detected, **<LOQ:** below limit of quantitation, **NMT:** no more than, **NLT:** no less than, **UHPLC:** ultra-high performance liquid chromatography, **GC:** gas chromatography, **DAD:** diode array detection/detector, **MS:** mass spectroscopy/spectrometer, **ICP:** inductively coupled plasma, **ISO:** International Organization for Standardization, **USP:** United States Pharmacopeia

Authorization

This report has been authorized for release from Cora Science by:

Signature:		**Position:**	Laboratory Director
		Department:	Management
Name:	Tyler West	**Date:**	03NOV2026

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