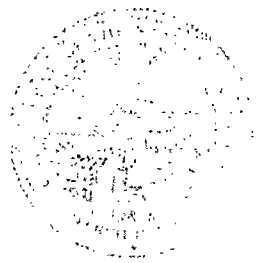


NEBRASKA

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DEPT. OF ENVIRONMENT AND ENERGY

MAR 26 2021



Public Information Center

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Scott Tingelhoff, General Manager
CAPITOL CORPORATE SERVICES, INC.
SUITE 800
1125 S. 103RD ST.
OMAHA, NE 68124

RE: AltEn, LLC Storage and Use of Biochar Material
NDEQ ID: 84069 Program ID: NE0204447

Dear Mr. Tingelhoff,

On March 3, 2021, the Nebraska Department of Environment and Energy (NDEE) obtained samples of the material generated by the biochar unit (biochar) using the contaminated distillers' grain, a solid waste, as a feedstock. These samples were sent to an independent lab to be tested for the presence of pesticides. The preliminary results are attached to this letter.

The preliminary test results indicate that the biochar process does not remove the pesticides from the distillers' grain when converting it to biochar. Therefore, NDEE continues to consider the biochar to be a solid waste as defined by Title 132. Due to the nature of the pesticides contained in the waste, NDEE is prohibiting land application of biochar per Title 132, Chapter 2, Sections 002.0102 and Chapter 6, Sections 003.01 and 003.02.

Because the biochar cannot be land applied, AltEn may dispose of the biochar at a permitted solid waste disposal facility (landfill) or re-process the biochar through the biochar unit to remove the pesticides. Should AltEn choose to re-process the biochar, or process additional distillers' grain through the biochar unit, NDEE must approve an operational plan, in writing, that thoroughly describes how the processing will occur before it may begin. The operational plan must include the following information:

1. A technical evaluation of the process explaining how pesticides will be removed.
2. A summary of the operating process identifying the flow of material through the biochar process.
3. A sampling plan identifying frequency, sample collection location(s), which pesticides are being tested, the name and location of the lab processing the test, and the procedures used to collect, package, and transport the samples.
4. A description of the measures that will be taken to prevent spills, discharges, or other environmental contamination.

Furthermore, any biochar stored onsite must be stored in a manner that prevents contact with stormwater or will result in land contamination. Acceptable storage methods include relocating the biochar to the grain storage building.

If you have any questions regarding this letter please contact me via e-mail at daniel.lemaistre@nebraska.gov.

Sincerely,

Daniel LeMaistre, PE
Waste Permits Section Supervisor

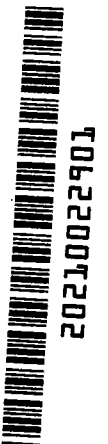
Enclosure (1), Cc: Tanner Shaw, AltEn, LLC

Department of Environment and Energy

P O Box 98922
Lincoln, Nebraska 68509-8922

Jim Macy, Director

OFFICE 402-471-2186 FAX 402-471-
ndee.moreinfo@nebraska.gov



Performed By:

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Report Date: 2021-03-24**Preliminary Report****South Dakota Agricultural Laboratories has examined the sample of**

Limfinite Package Id : 20210305-004
 Lab Sample Id : 21PE001511
 Customer Sample Id : Biochar Bagged
 Sample Description : Biochar
 Date Collected : 2021-03-03
 Date Received : 2021-03-05

RESULTS

ANALYTE	UNIT	AS RECEIVED	DETECTION LIMIT	METHOD	DATE OF EXTRACTION	DATE OF ANALYSIS
Abamectin	ppb	Pending				
Acetamiprid	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Azoxystrobin	ppb	208	5	LC-MS/MS	2021-03-08	2021-03-10
Brassinazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Clothianidin	ppb	8790	5	JAOACI 86(5)	2021-03-08	2021-03-09
Cyproconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Desthio-Prothioconazole	ppb	194	5	LC-MS/MS	2021-03-08	2021-03-08
Difenoconazole	ppb	437	5	LC-MS/MS	2021-03-08	2021-03-08
Dimoxystrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Dinotefuran	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Epoxiconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Fluconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Fluoxastrobin	ppb	1860	5	LC-MS/MS	2021-03-08	2021-03-10
				J. Agric. Food		
Glufosinate	ppb	ND	10	Chem. 34 535-538	2021-03-08	2021-03-11
				J. Agric. Food		
Glyphosate	ppb	ND	10	Chem. 34 535-538	2021-03-08	2021-03-11
Imidacloprid	ppb	449	5	JAOACI 86(5)	2021-03-08	2021-03-09
Ipconazole	ppb	1210	5	LC-MS/MS	2021-03-08	2021-03-08
Isavuconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Metconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Nitenpyram	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Orysastrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Picoxystrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Propiconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Prothioconazole	ppb	794	5	LC-MS/MS	2021-03-08	2021-03-08

Pyraclostrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Ravuconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Sulfonic Acid Prothioconazole	ppb	22.6	5	LC-MS/MS	2021-03-08	2021-03-23
Tebuconazole	ppb	362	5	LC-MS/MS	2021-03-08	2021-03-08
Tetraconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Thiabendazole	ppb	4520	5	LC-MS/MS	2021-03-08	2021-03-08
Thiacloprid	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Thiamethoxam	ppb	213	5	JAOACI 86(5)	2021-03-08	2021-03-09
Trifloxystrobin	ppb	98.1	5	LC-MS/MS	2021-03-08	2021-03-10
Uniconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Voriconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08

QUALITY ASSURANCE

ANALYTE	UNIT	DUPLICATE	SPIKE RECOVERY	MATRIX BLANK	PROCESS BLANK	INSTRUMENT BLANK
Abamectin	ppb					
Acetamiprid	ppb	ND	102	ND	ND	ND
Azoxystrobin	ppb	216	112	ND	ND	ND
Brassinazole	ppb	21PE001511	88.6	ND	ND	ND
Clothianidin	ppb	7880	127	ND	ND	ND
Cyproconazole	ppb	21PE001511	89.4	ND	ND	ND
Desthio-Prothioconazole	ppb	209	81.7	ND	ND	ND
Difenoconazole	ppb	467	99.5	ND	ND	ND
Dimoxystrobin	ppb	ND	109	ND	ND	ND
Dinotefuran	ppb	ND	88.7	ND	ND	ND
Epoxiconazole	ppb	21PE001511	115	ND	ND	ND
Fluconazole	ppb	ND	115	ND	ND	ND
Fluxastrobin	ppb	1990	119	ND	ND	ND
Glufosinate	ppb	ND	103	ND	ND	ND
Glyphosate	ppb	ND	101	ND	ND	ND
Imidacloprid	ppb	430	108	ND	ND	ND
Ipconazole	ppb	1370	104	ND	ND	ND
Isavuconazole	ppb	ND	114	ND	ND	ND
Metconazole	ppb	ND	108	ND	ND	ND
Nitenpyram	ppb	ND	125	ND	ND	ND
Orysastrobin	ppb	ND	96.4	ND	ND	ND
Picoxystrobin	ppb	ND	113	ND	ND	ND
Propiconazole	ppb	ND	94.0	ND	ND	ND
Prothioconazole	ppb	921	85.8	ND	ND	ND
Pyraclostrobin	ppb	ND	107	ND	ND	ND
Ravuconazole	ppb	ND	82.0	ND	ND	ND
Sulfonic Acid Prothioconazole	ppb	23.8	121	ND	ND	ND
Tebuconazole	ppb	366	107	ND	ND	ND
Tetraconazole	ppb	ND	82.1	ND	ND	ND
Thiabendazole	ppb	5040	103	ND	ND	ND
Thiacloprid	ppb	ND	106	ND	ND	ND
Thiamethoxam	ppb	205	97.6	ND	ND	ND
Trifloxystrobin	ppb	106	115	ND	ND	ND
Uniconazole	ppb	ND	88.2	ND	ND	ND
Voriconazole	ppb	ND	83.7	ND	ND	ND

Comments:

Definitions:

ppb - parts per billion

Detection Limit - Lowest concentration that can be quantitatively reported with confidence

ND - Not Detected above the limit of quantification

Duplicate - Concentration found in repeat sample analysis

Spike Recovery - Recovery based on a known amount of active ingredient spiked into a similar-matrix, blank sample

Matrix Blank - A similar-matrix, blank sample is evaluated

Process Blank - A sample without any matrix (soil, vegetation etc) is processed through the sample analysis procedure

Instrument Blank - Injection solvent is run to demonstrate no carryover between injections on the instrument

Reviewed and approved by Regina Wixon, Ph.D.

Performed By:

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Collected By:

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 E-Mail: david.schumacher@nebraska.gov

Report Date: 2021-03-24**Preliminary Report****South Dakota Agricultural Laboratories has examined the sample of**

Limfinite Package Id : 20210305-004
 Lab Sample Id : 21PE001512
 Customer Sample Id : Biochar Furnace
 Sample Description : Biochar
 Date Collected : 2021-03-03
 Date Received : 2021-03-05

RESULTS

ANALYTE	UNIT	AS RECEIVED	DETECTION LIMIT	METHOD	DATE OF EXTRACTION	DATE OF ANALYSIS
Abamectin	ppb	31.2	10		2021-03-16	2021-03-17
Acetamiprid	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Azoxystrobin	ppb	6.91	5	LC-MS/MS	2021-03-08	2021-03-10
Brassinazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Clothianidin	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Cyproconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Desthio-Prothioconazole	ppb	10.1	5	LC-MS/MS	2021-03-08	2021-03-08
Difenoconazole	ppb	15.2	5	LC-MS/MS	2021-03-08	2021-03-08
Dimoxystrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Dinotefuran	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Epoxiconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Fluconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Fluoxastrobin	ppb	120	5	LC-MS/MS	2021-03-08	2021-03-10
				J. Agric. Food		
Glufosinate	ppb	ND	10	Chem. 34 535-538	2021-03-08	2021-03-11
				J. Agric. Food		
Glyphosate	ppb	ND	10	Chem. 34 535-538	2021-03-08	2021-03-11
Imidacloprid	ppb	<5	5	JAOACI 86(5)	2021-03-08	2021-03-09
Ispiconazole	ppb	41.6	5	LC-MS/MS	2021-03-08	2021-03-08
Isavuconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Metconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Nitenpyram	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Orysastrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Picoxystrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Propiconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Prothioconazole	ppb	20.2	5	LC-MS/MS	2021-03-08	2021-03-08

Pyraclostrobin	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-10
Ravuconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Sulfonic Acid Prothioconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-23
Tebuconazole	ppb	17.7	5	LC-MS/MS	2021-03-08	2021-03-08
Tetraconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Thiabendazole	ppb	30.6	5	LC-MS/MS	2021-03-08	2021-03-08
Thiacloprid	ppb	ND	5	JAOACI 86(5)	2021-03-08	2021-03-09
Thiamethoxam	ppb	10.7	5	JAOACI 86(5)	2021-03-08	2021-03-09
Trifloxystrobin	ppb	5.43	5	LC-MS/MS	2021-03-08	2021-03-10
Uniconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08
Voriconazole	ppb	ND	5	LC-MS/MS	2021-03-08	2021-03-08

QUALITY ASSURANCE

ANALYTE	UNIT	DUPLICATE	SPIKE RECOVERY	MATRIX BLANK	PROCESS BLANK	INSTRUMENT BLANK
Abamectin	ppb	21PE001511	75.9	ND	ND	ND
Acetamiprid	ppb	21PE001511	102	ND	ND	ND
Azoxystrobin	ppb	21PE001511	112	ND	ND	ND
Brassinazole	ppb	21PE001511	88.6	ND	ND	ND
Clothianidin	ppb	21PE001511	127	ND	ND	ND
Cyproconazole	ppb	21PE001511	89.4	ND	ND	ND
Desthio-Prothioconazole	ppb	21PE001511	81.7	ND	ND	ND
Difenoconazole	ppb	21PE001511	99.5	ND	ND	ND
Dimoxystrobin	ppb	21PE001511	109	ND	ND	ND
Dinotefuran	ppb	21PE001511	88.7	ND	ND	ND
Epoxiconazole	ppb	21PE001511	115	ND	ND	ND
Fluconazole	ppb	21PE001511	115	ND	ND	ND
Fluxastrobin	ppb	21PE001511	119	ND	ND	ND
Glufosinate	ppb	21PE001511	103	ND	ND	ND
Glyphosate	ppb	21PE001511	101	ND	ND	ND
Imidacloprid	ppb	21PE001511	108	ND	ND	ND
Ipconazole	ppb	21PE001511	104	ND	ND	ND
Isavuconazole	ppb	21PE001511	114	ND	ND	ND
Metconazole	ppb	21PE001511	108	ND	ND	ND
Nitenpyram	ppb	21PE001511	125	ND	ND	ND
Orysastrobin	ppb	21PE001511	96.4	ND	ND	ND
Picoxystrobin	ppb	21PE001511	113	ND	ND	ND
Propiconazole	ppb	21PE001511	94.0	ND	ND	ND
Prothioconazole	ppb	21PE001511	85.8	ND	ND	ND
Pyraclostrobin	ppb	21PE001511	107	ND	ND	ND
Ravuconazole	ppb	21PE001511	82.0	ND	ND	ND
Sulfonic Acid Prothioconazole	ppb	21PE001511	121	ND	ND	ND
Tebuconazole	ppb	21PE001511	107	ND	ND	ND
Tetraconazole	ppb	21PE001511	82.1	ND	ND	ND
Thiabendazole	ppb	21PE001511	103	ND	ND	ND
Thiacloprid	ppb	21PE001511	106	ND	ND	ND
Thiamethoxam	ppb	21PE001511	97.6	ND	ND	ND
Trifloxystrobin	ppb	21PE001511	115	ND	ND	ND
Uniconazole	ppb	21PE001511	88.2	ND	ND	ND
Voriconazole	ppb	21PE001511	83.7	ND	ND	ND

Comments:

Definitions:

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