ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

PO Box 50004
Minneapolis, MN 55405

tel. 203.506.1814
fax 612.284.8909
michaelklema@landspread.com
www.landspread.com

Wednesday December 18, 2024

Theresa Stiner
Iowa Department of Natural Resources
Land Quality Bureau
502 E 9th Street
Des Moines, IA 50319-0034

RE: Smithfield Packaged Meats Corp. Permit # 84-SDP-11-22
Additional Sites Application

Dear Ms. Stiner,

Enclosed is an application to add additional land application sites to the referenced permit for Smithfield Packaged Meats.

There are two items to note in the additional sites checklist.

- There will be no increased volume for storage since the original permit application so the closure cost estimate has not been revised.
- Land application sites have been or will be soil sampled as necessary prior to each application for each site when conditions are suitable.

If you have any questions, please do not hesitate to call.

Sincerely,

MJ Klema

Michael Klema
Environmental Land Management, LLC

cc: IDNR FO #3, 1900 N Grand Ave, Ste E17, Spencer, IA 51301

IOWA DEPARTMENT OF NATURAL RESOURCES

Land Application of Solid Waste

Additional Sites

Application to add sites to an existing solid waste land application permit must be accompanied by the information required by the applicable solid waste rules under Iowa Administrative Code 567 Chapter 121.

Send completed applications with attached information to:

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste Section
502 East Ninth Street
Des Moines, IA 50319-0034

For questions concerning this application please contact the Department at (515) 725-8350.

SECTION 1. FACILITY CONTACT INFORMATION

Permit # 84 -SDP- 11 - 22 -LAN

Solid Waste Generator Name/Address:

Smithfield Packaged Meats
251 15th St NE
Sioux Center, IA 51250

Phone #: 712-722-3675 **Fax #:**

SECTION 2. PERMIT APPLICATION CHECKLIST

Checking the appropriate boxes below certifies that the documents submitted in conjunction with this application form are complete and in compliance with the applicable chapters of the Iowa Administrative Code. One (1) copy of each document shall be submitted. If an application is found by the department to be incomplete, it may be denied and returned to the applicant.

Required Documents			Attached
	Document/Information	**Administrative Code**	
Section A	List of all the sites being added. For each site include: • Name of site • Legal description of the site • Total acres in the site • Acres to be used for disposal • Name of landowner or tenant		X
Section B	Financial Assurance. **If** the additional site(s) will include additional storage of materials, include a revised cost estimate and proof of financial assurance in the revised amount.	IAC 567 121.8	*Checklist

For each site attach the following:			
Section C	Site map or aerial photo of the site showing the following: • The specific area where the material will be applied • Buildings, lakes, ponds, watercourses, wetlands, dry runs, rock outcroppings, roads, and other applicable details. • Soil types and slope • Location of wells *Please remember that the area to be used for land disposal:* • *may not have a slope of greater than 9%,* • *may not be within 200 feet of an occupied residence* • *may not be within 500 feet of a well* ***If the specific area requested includes any of the above the entire field will not be approved.***	IAC 567 121.7(1)"a"(1) IAC 567 121.7(1)"a"(1) IAC 567 121.7(1)"a"(2) IAC 567 121.7(1)"a"(1)	X
Section D	Soil testing	IAC 567 121.7(1)"a"(9)	*Checklist
Section E	Water table levels	IAC 567121.7(1)"a"(10)	X
Section F	Review by Soil Conservation District that includes the following: • Soil loss limits applicable to the site • Design soil loss levels for the site • Estimated current soil loss levels *The review may be done by the Natural Resources Conservation Service or a Professional Agronomist in lieu of the Soil Conservation District.*	IAC 567 121.7(1)"a"(3) IAC 567 121.7(1)"a"(6) IAC 567 121.7(1)"a"(7) IAC 567 121.7(1)"a"(8)	X
Section G	Proof of ownership or legal entitlement to use the site. (Agreement with landowner or tenant) *One document may be submitted for multiple sites with the same landowner or tenant.*	IAC 567 121.7(1)"b"(6)	X

SECTION 3. APPLICANT CERTIFICATION

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I further certify that the construction and operation of the above described facility will be in accordance with the plans, specifications, reports and related communications accepted by the Iowa Department of Natural Resources and on file in its office; and in accordance with conditions imposed in the permit issued by the Iowa Department of Natural Resources.

Signature: Nathan J. Frens **Date:** 12-12-2024

Printed Name: Nathan J. Frens **Title:** General Manager

Smithfield Packaged Meats Corp.
Sioux Center, Orange City, Sioux City

Iowa DNR Land Application Permit # 84-SDP-11-22P-LAN
Additional Sites Application Checklist: Sections A-G

A. List of All Sites Being Added

1. See attached Additional Sites List and Table 1 Master Site List including all additional land application sites and all previously approved land application sites. Each site list includes:
    - i. Name of Site
    - ii. Legal Description of Site
    - iii. Total Acres in the Site
    - iv. Acres to be used for disposal / Suitable Acres
    - v. Name of Landowner or Tenant

B. Financial Assurance

1. Financial assurance will not be updated or changed due to this being a new site addition with no additional volumes expected.

C. Site Map or Aerial Photo of Sites

1. See attached aerial site map of additional site detailing:
    - i. The specific area where the material will be applied
        1. Site boundaries outlined on each aerial map
    - ii. Buildings, lakes, ponds, watercourses, wetlands, dry runs, rock outcroppings, roads, and other applicable details
        1. Site features and setbacks detailed on aerial maps
    - iii. Soil types and slope
        1. NRCS soil maps attached for each site
    - iv. Location of wells
        1. IDNR Well Search information attached for each site and active wells highlighted on aerial maps by 500 foot circular setback

D. Soil Testing

1. Soil testing will be completed for each additional site prior to application of that site. Additional site soil sampling will be completed each time site is used for application.

E. Water Table Levels

1. See attached Depth to Water Table outline for each specific site provided by NRCS.

F. Review by Professional Agronomist

1. See attached land application site suitability review performed by Extended Ag Services of Lakefield, MN discussing soil loss levels through erosion and flooding potential.
    i. Extended Ag Services - Jim Nesseth, Certified Agronomist, License # 17118 and Andy Nesseth, Environmental Consultant.
2. See attached T Factor erosion potential outlines for each specific site provided by NRCS.

G. Proof of Ownership or Legal Entitlement to Use the Site

1. See attached Contractual Consent of Landowner, Lessee and/or Land Operator for the specific individual with this additional sites application.

Smithfield Master Site List (Table 1): Permit 84-SDP-11-22

Site Name	Farmer	Landowner	County	Township	T, R	Section	Section Description	Total Acres	Acceptable Land Application Acres
Ken Less Home	Ken Less	Ken Less	Plymouth	Johnson	T92N, R47W	32, 33	N 1/2 SE 1/4 Sec 32, NW 1/4 SW 1/4 Sec 33	100	80
Site 10 Krienert	Stan Krienert	Stan Krienert	Plymouth	Washington	T92N, R46W	8	NE 1/4	154	140
Site 11 Krienert Home	Dan Langel	Dan Langel / Phil Krienert	Plymouth	America	T92N, R45W	18	E 1/2 of SW 1/4, SE 1/4, SE 1/4 of NE 1/4	200	190
Site 12 Krienert	Phil Krienert	Phil Krienert	Plymouth	Washington	T92N, R46W	5	S 1/2 of NW 1/4	57	48
Site 13 Krienert	Ed Krienert	Arlene Boysen Trust	Plymouth	Washington	T92N, R46W	9	NW 1/4	156	156
Site 14 Krienert	Ed Krienert	Ed Krienert	Plymouth	Grant	T93N, R46W	21	S 1/2 NW 1/4, SW 1/4, W 1/2 SE 1/4	275	176
Site 17 Krienert	Ken Krienert	Ken Krienert	Plymouth	Washington	T92N, R46W	8	N1/2 of NW 1/4	66	66
Site 18 Krienert	Ed Krienert	Julie Bell	Plymouth	Grant	T93N, R46W	31, 32	S 1/2 of SE 1/4 Sec 31; S 1/2 of SW 1/4 Sec 32	153	153
Ken Less North	Ken Less	Greg Brown	Plymouth	Johnson	T92N, R47W	33	SW 1/4 of NW 1/4	53	53
Langel Garfield 8	Cole Langel	Dan & Cole Langel	Plymouth	Garfield	T90N, R43W	8	E 1/2	315	315
Langel Henry 28	Dan Langel	D&JL LLC	Plymouth	Henry	T91N, R43W	28	S 1/2 of NW 1/4, N 1/2 of SW 1/4, SE 1/4	309	266
Kent Allen 155	Kent Allen	Sue Ann Wilms Trust	Plymouth	Johnson	T92N, R47W	32	SW 1/4	155	103
Tentingers	Jim Tentinger	GMT Properties	Plymouth	Johnson	T92N, R47W	32	NE 1/4 & E 1/2 of NW 1/4	185	173
Vanderschaaf	Wally Vanderschaaf	Jacob Griend & Jeanette Vande Trust	Sioux	Holland	T95N, R44W	5	SE 1/4	140	140

Farmer Information

Name	Phone	Address	City	State
Philip Krienert	712-540-3197	18493 Lake Ave	Le Mars	IA
Ed Krienert	712-533-6125	13328 Iris Ave	Le Mars	IA
Ken Less	712-548-8623	21601 Fir Ave	Merrill	IA
Ken Krienert	712-533-6400	PO Box 116	Brunsville	IA
Dan Langel	712-540-9956	35855 C-38	Le Mars	IA
Cole Langel	712-540-9253	20921 Nature Ave	Le Mars	IA
Kent Allen	712-548-6080	21448 190th St	Arkon	IA
Wally Vanderschaaf	712-395-1726	PO Box 213	Sioux Center	IA
Jim Tentinger	712-660-0982	24332 220th St	Merrill	IA

Smithfield New Site List 11/21/24: Permit 84-SDP-11-22

Site Name	Farmer	Landowner	County	Township	T, R	Section	Section Description	Total Acres	Acceptable Land Application Acres
Tentingers	Jim Tentinger	GMT Properties	Plymouth	Johnson	T92N, R47W	32	NE 1/4 & E 1/2 of NW 1/4	185	173

Farmer/Owner Information

Name	Phone	Address	City	State
Jim Tentinger	712-660-0982	24332 220th St	Merrill	IA

ENVIRONMENTAL
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waste byproduct landspreading specialists

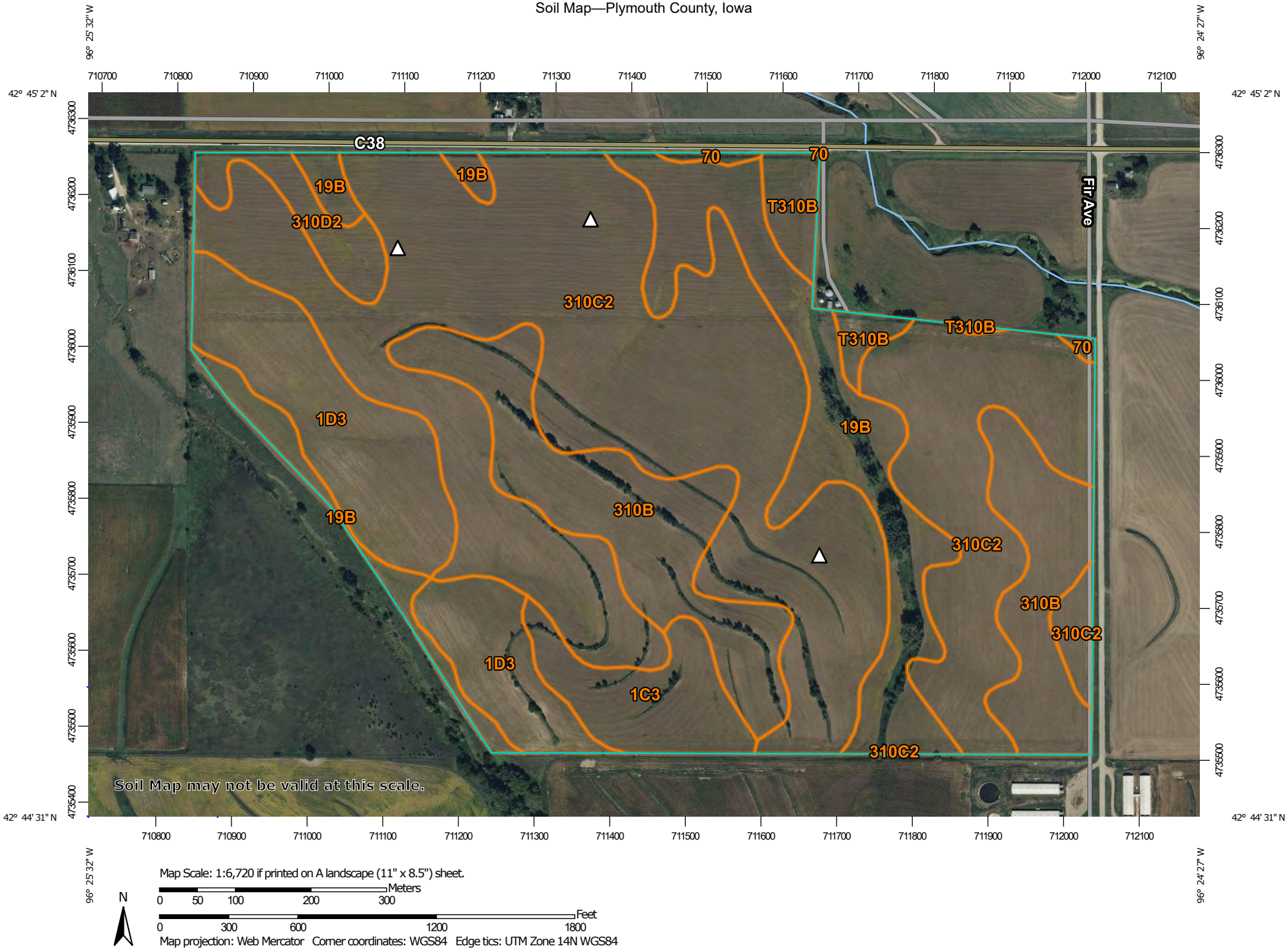
Site Name:Tentingers

Unsuitable for Land Application

Farmer Name: Jim Tentinger Phone: (712)540-4567 Spreadable Acres: 173 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____



Map Scale: 1:6,720 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Plymouth County, Iowa
Survey Area Data: Version 35, Aug 29, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2022—Sep 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	7.9	4.3%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	21.6	11.6%
19B	Kennebec-McPaul silt loams, 2 to 5 percent slopes	24.9	13.4%
70	McPaul silt loam, 0 to 2 percent slopes	0.6	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	28.1	15.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	94.5	50.9%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	4.0	2.1%
T310B	Galva silty clay loam, terrace, 2 to 5 percent slopes	3.8	2.1%
Totals for Area of Interest		**185.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	4	7.9	4.3%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	4	21.6	11.6%
19B	Kennebec-McPaul silt loams, 2 to 5 percent slopes	5	24.9	13.4%
70	McPaul silt loam, 0 to 2 percent slopes	5	0.6	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	28.1	15.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	94.5	50.9%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	4.0	2.1%
T310B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	3.8	2.1%
Totals for Area of Interest			**185.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	>200	7.9	4.3%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	>200	21.6	11.6%
19B	Kennebec-McPaul silt loams, 2 to 5 percent slopes	122	24.9	13.4%
70	McPaul silt loam, 0 to 2 percent slopes	122	0.6	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	28.1	15.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	94.5	50.9%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	4.0	2.1%
T310B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	3.8	2.1%
Totals for Area of Interest			**185.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Well Search Print | Help |

Well Search Report Site Name: Tentingers

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	1	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	2	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 220497/4738251
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
7738	11474	T92N, R47W, 33, SW NW SW NW	Calc. +/- 230 ft.	784 (m)	135	8/26/1959	Wright, Harold	Bedrock Depth: 0 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
7744	2146078	T92N, R47W, S32	nom. +/- 25m.	(m)	37	1/1/1950	Wilms, Sue	Status: Plugged

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
7574	40590	T92N, R47W, Sec. 33, NW, NW, NE	Calc. +/- 285m.	717 (m)	30	unkn	Hemmelman, Jane	Drilling method: Dug; Estimated well depth
7336	10317	T92N, R47W, Sec. 30, SE, SE, NW	Calc. +/- 570m.	(m)	35	unkn	Kroksh, Randy	Drilling method: Driven; Known well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

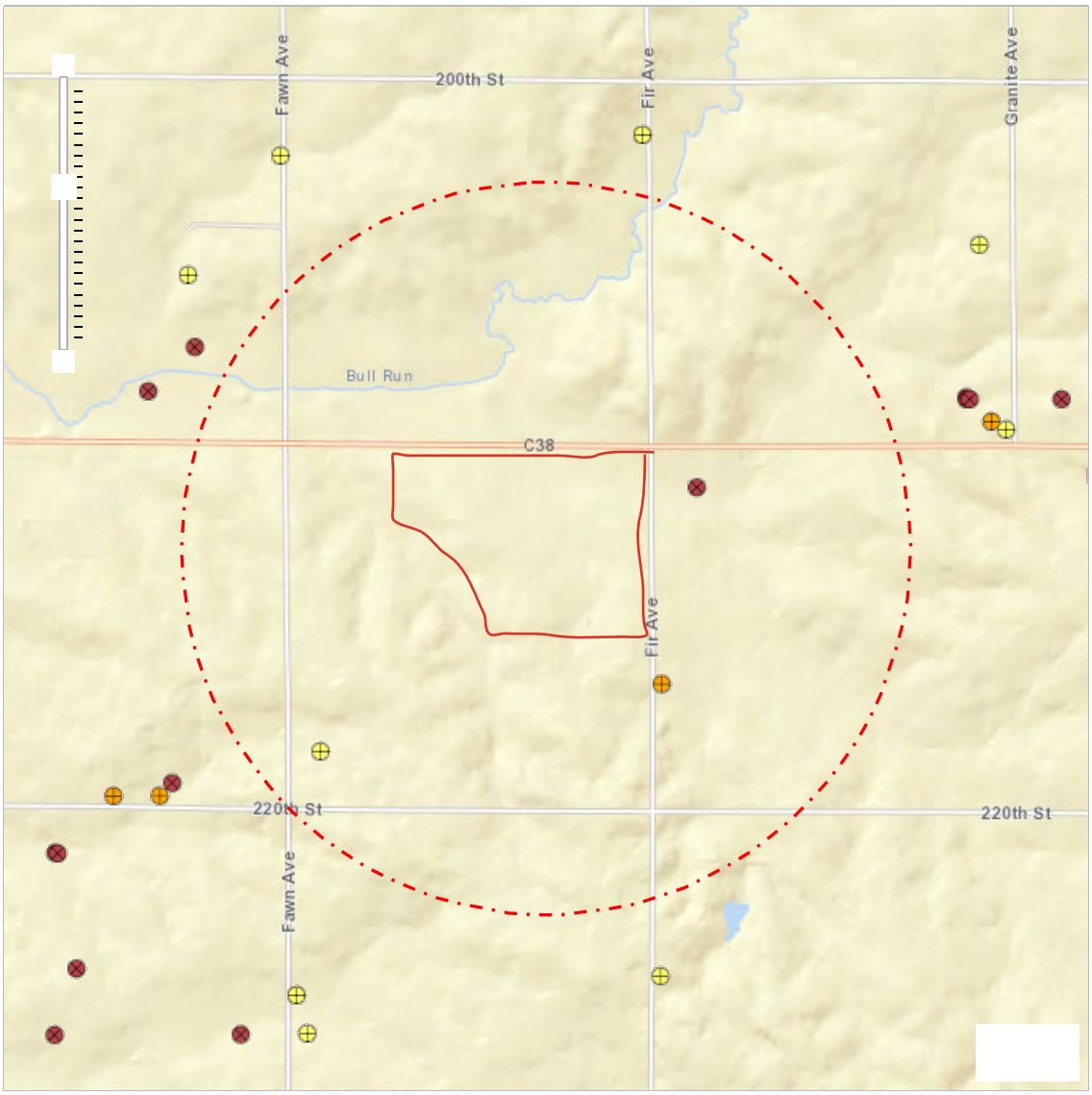
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 220497/4738251
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

EXTended Ag Services, Inc.

202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

November 19, 2024

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Smithfield Foods (Plymouth County, Iowa)

Michael,

We have completed our review of the proposed land application site for the Smithfield Foods facilities in Orange City & Sioux Center, Iowa. Thank you for the opportunity to provide our input on this project. The following fields were included in this review, all acres are approximate:

Site Name	Acres
Smithfield SC-OC-SC Tentingers	200.3
Grand Total	**200.3**

Imagery provided by the National Ag Imagery Program (2021) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application site has few limitations regarding slope steepness and length and general erosion potential.

There are approximately 200.3 acres available for land application of the industrial by-product. The land application site is dominated by silt loams and silty clay loams. All soils have an acceptable soil texture for land application.

According to the NRCS, 87.4% of the sites have acceptable slopes for the land application the Smithfield byproducts (0-9%). Despite the acceptable slopes, approximately 31.8% of the soils are classified as having slight concerns regarding erosion potential, 49.6% are classified as having moderate concerns and 15.0% as having severe concerns regarding erosion potential. According to the NRCS, 64.9% of the soils are classified as a Highly Erodible Map Unit.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with

the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
0-2%	7.3
2-5%	62.9
5-9%	104.8
9-14%	25.3
Grand Total	**200.3**

None of the soils in the potential land application site are listed by the NRCS soil survey as commonly or frequently flooded. Still, it is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
NONE	167.8
RARE	32.5
Grand Total	**200.3**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

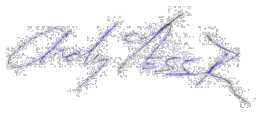
Application rates of approximately 12 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are very suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,



Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Jim Tentinger
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of wastewater sludge generated from the Premium Pet Health pet and livestock feed processing plant in Orange City, IA and wastewater sludge generated from the Golden Crisp Premium Foods pork processing plant in Sioux Center, IA and wastewater sludge generated from the Curly's Foods processing plant in Sioux City, IA.
Industrial Sludge is generated from: Premium Pet Health, Orange City, IA; Golden Crisp Premium Foods, Sioux Center, IA; Curly's Foods, Sioux City, IA.

Nutrient Analysis of sludge byproduct on a "as received" basis:
Metals Analysis of sludge byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Nutrient analysis is an average of four samples from 2021-2022 from the Krienert and Less storage lagoons and does not include the byproduct from Curly's. Metals anlalysis from one sample in 2022. Byproduct output will be variable.*

Total Solids	9.95 %	Arsenic	none detected
pH	5.88	Barium	3.4 mg/kg
Tot.Kjeldahl Nitrogen	0.37 %	Cadmium	none detected
Ammonia Nitrogen	0.20 %	Chromium	4.4 mg/kg
Phosphorus	0.09 %	Copper	9.7 mg/kg
P2O5	0.21 %	Lead	none detected
Potassium	0.04 %	Mercury	none detected
K2O	0.05 %	Molybdenum	none detected
		Nickel	2.2 mg/kg
		Selenium	0.8 mg/kg
		Silver	none detected
		Zinc	74.5 mg/kg

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing during the coming year.

I have reviewed this information and am authorized to hereby give permission to Smithfield Foods (Premium Pet Health & Golden Crisp Premium Foods & Curly's Foods) to store and land apply on the spreading sites.

Signed: Jim Tentinger Date: 11-12-2024