2020
Compliance Calendar for Livestock

Facility Name:

KDHE Permit Number:

- State-permitted sites may use this calendar to replace operational reports as required in the permit.
- Federal Facility operational reports and annual reporting are still required using Microsoft Excel Workbook forms.

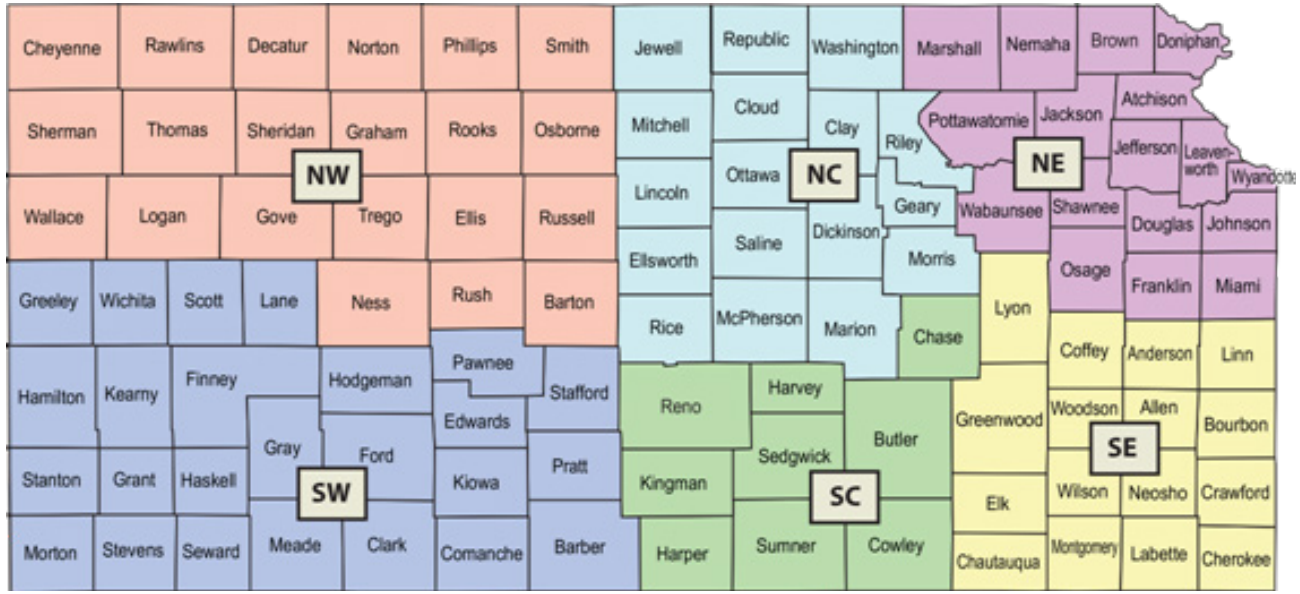
Electronic copies of the compliance calendar can be obtained at www.kdheks.gov/feedlots.

Kansas
Department of Health and Environment

Kansas Department of Health and Environment

Bureau of Environmental Field Services
Livestock Waste Management Section
1000 SW Jackson St., Suite 430
Topeka, KS 66612-1367
785-296-6432

Related links, forms and technical guidance documents are available on KDHE's website at www.kdheks.gov/feedlots/.



Contact Information KDHE District Offices

Northwest District
2301 E. 13th Street
Hays, Kansas 67601-2651
785-261-6100

Southwest District
302 West McArtor Road
Dodge City, KS 67801-6014
620-682-7940

Ulysses Satellite Office
313 West Oklahoma Terrace
Ulysses, KS 67880
620-356-2210

North Central District
2501 Market Place, Suite D
Salina, KS 67401-7699
785-827-9639

South Central District
300 West Douglas, Suite 700
Wichita, KS 67202-2921
316-337-6020

Northeast District
800 West 24th Street
Lawrence, Kansas 66046-4417
785-842-4600

Southeast District
308 West 14th Street
Chanute, KS 66720
620-431-2390

Report overflows or discharges within two hours of discovery to the KDHE spill hotline at 785-296-1679.

Kansas Water Pollution Control Permit for Agricultural and Related Wastes

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY. SOME INSTRUCTIONS MAY APPLY TO BOTH STATE AND FEDERAL KANSAS WATER POLLUTION CONTROL PERMITTED FACILITIES. CONTACT KDHE AT THE CONTACT INFORMATION LISTED BELOW IF YOU HAVE QUESTIONS.

I. Record the **Maximum Number of Animals (head count)** actually confined at the facility at any one time during the month (not the permitted capacity). Maximum head count shall be recorded for each animal type/weight classification confined at the facility.

II. Record the **Daily Precipitation** amounts in inches. For snowfall, record the inches of snow and add an "S" (e.g. 6 S).

III. **Daily Livestock Waste and/or Process Wastewater Disposal**

Land Application — The following information shall be recorded for each day livestock waste and/or process wastewater that is land-applied:

- **Field ID:** The destination of the livestock waste and/or process wastewater. The Field ID shall be consistent with the name or number used to identify the field in the most recently approved Waste Management Plan or Nutrient Management Plan. If more than one field is applied to on the same day, separate the fields in the Field ID column by a slash (/), comma (,), etc.
- **Soil Condition:** The soil condition – frozen (F), thawed (T), snow covered (SC) or saturated (S) – at the time of application. As a reminder, liquid waste shall not be applied when the ground is frozen, saturated or snow covered without prior permission from KDHE.
- **# of Acres:** The number of acres the livestock waste and/or process wastewater was applied to.
- **Crop:** The crop or other type of field cover the livestock waste and/or process wastewater was applied to.
- **Waste Source:** The specific source the livestock waste was taken from and/or the type of waste that was applied (e.g. manure stockpile, Retention Control Structure 2 (RCS 2), compost, etc.).
- **Application Method:** The method used to apply the livestock waste and/or process wastewater (e.g. broadcast, center pivot, etc.).
- **Total Waste Application:** Total tons (solids) or gallons (liquids) of livestock waste and/or process wastewater that was applied.

Transfers Between Structures — Record the following information for each day wastewater is transferred between Retention Control Structures (RCS):

- **RCS ID:** The destination of the wastewater. Record the name or number used to identify the RCS that received the wastewater.
- **Waste Source:** The name or number used to identify the RCS that the wastewater was transferred from.

NOTE: The volume (gallons) transferred between RCSs does not need to be recorded.

IV. **Wastewater Retention Control Structure Levels —** Record the wastewater level (measured from the top of berm to the water surface) in each Retention Control Structure (RCS) present at the facility.

STATE PERMITTED FACILITIES: Record the wastewater level on the 1st and 15th of each month for each RCS.

Both FEDERAL AND STATE PERMITTED FACILITIES: Whenever the wastewater in an RCS is above the permitted operating level **(Table 1 in facility permit)**, the actual wastewater level (measured from the top of berm to the water surface) shall be recorded **DAILY** until the permitted operating level is achieved.

Continued on next page.

V. In the **Notes** section, document any corrective action taken to correct deficiencies identified during daily and weekly visual inspections. Also, provide any comments on operation and maintenance activities (e.g. berm inspection, maintenance and repair), dates when manure application equipment was calibrated and/or any nutrient management issues (e.g. cropping changes).

VI. Review your current permit as the requirement to submit monthly Operations Reports to the Department may have changed. If your current permit requires you to submit the monthly Operations Reports, mail, fax or email the required month to KDHE at the address listed below by the 10th of the month following the reporting period. A copy of the report shall be kept on site for a minimum of five years plus the current calendar year.

Contact Information: KDHE - BEFS - Livestock Waste Management Section, 1000 SW Jackson St., Suite 430, Topeka, KS 66612-1367
Phone: (785) 296-6432 • Fax: (785) 559-4258 • Email: kdhe.feedlots@ks.gov

Example of Daily Livestock Waste and/or Process Wastewater Disposal

Date	Precipitation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)
07/15/19	1.2	SW 1		40	Corn	Solid (beef feedlot)	Broadcast	415.2	
8/19/19	0.1	SW 2	S	100	Soybean	Solid (Poultry)	Broadcast	33.3	
10/30/19	0.5	Pivot 1	T	80	Sorghum	Liquid (Swine manure)	Injection		587952
12/15/19	3 S	Pivot 2	SC	160	Wheat	Liquid (dairy manure)	Center pivot		674699

Vertical Staff Gauges

The staff gauge is designed to allow reading of the current operating level of the lagoon or retention structure in feet or the amount of available storage the lagoon has in feet from the lowest point in the berm to the water level. Materials used for the staff gauge may be metal, treated wood or PVC.

The staff gauge is to be marked in 12-inch increments that can easily be read to the nearest six inches from the berm.

Examples for the foot-increment marking materials include paint, rebar, bolts, notches, pipe clamps or holes.

Stake Method

- Place markers along slope
- Must be marked to read vertical measurement of available storage capacity
- Ensure numbers can be read above required storage level

Single Vertical Pole

- Normally set in new structure
- Set at a minimum three-foot depth with backfill of compacted soil or concrete

Report overflows or discharges within two hours of discovery to the KDHE spill hotline at 785-296-1679.

JANUARY 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Record the operating level or storage available in the retention control structures (RCS). State permits record on the 1st and 15th of each month.

Write your lagoon operating level requirements from Table 1 in your permit in the notes box below each month.

Be certain to check your permit for any Schedule of Compliance items that may be due this year.

Notes

Conversion Factors for Manure*

1 ton = 2,000 pounds
1 gallon = 8.3 pounds
1 cubic foot = 55 pounds (dry) to 62 pounds (wet)
1 cubic foot = 7.5 gallons
1 yard = 27 cubic feet

For a quick, solid manure estimate, weigh a five-gallon pail of manure. Subtract the weight of the bucket (~ 2lbs) to get the actual weight of the manure. Multiply the weight of the manure by 40 to get pounds per cubic yard.

* Due to the variability of manure, using the above conversion factors will only provide an estimate of the true value.

JANUARY 2020

Tip of the Month

Transfer relevant information, if any, from last year's calendar to this year's calendar. If a permit has requirements for soil test sampling in vegetated buffers, land application areas or groundwater monitoring, plan to complete these in the upcoming months to meet deadlines.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.			RCS Op Levels: RCS 1: RCS 2: RCS 3: New Year's Day 1	2	3	4
5	6	7	8	9	10	11
12	13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	18
19	Martin Luther King Jr. Day 20	21	22	23	24	25
26	27	28	29	30	31	

February

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

FEBRUARY 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Soil sample cores must be taken to a depth of 24 inches. The top six to eight inches of each core should be combined to obtain a surface sample. Then combine the remaining portions of each core to obtain a profile sample.

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FEBRUARY 2020

Tip of the Month

Water lines, including drinking and water or cooling lines, should be visually inspected daily. Confined animals should have no direct contact with any surface water.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.						RCS Op Levels: RCS 1: RCS 2: RCS 3: 1
2	3	4	5	6	7	8
9	10	11	12	13	Valentine's Day 14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15
16	President's Day 17	18	19	20	21	22
23	24	25	26	27	28	29

March

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

MARCH 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Liquid waste cannot be applied on ground that is saturated or during a precipitation event. If emergency de-watering is needed, contact KDHE. Remember to check application fields frequently. Any wastewater application leaving a field is considered a discharge event and must be reported.

Notes

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MARCH 2020

Tip of the Month

Plan for soil testing of application fields and analysis of waste for application needs. Apply nutrients when they will most likely be used by the plants.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3	4	5	6	7
Daylight Savings Time Begins 8	9	10	11	12	13	14
RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	St. Patrick's Day 17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.

April

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2

APRIL 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # ____________________
Animal Type / Wt ____________________

Head # ____________________
Animal Type / Wt ____________________

Head # ____________________
Animal Type / Wt ____________________

Ensure a setback of 100 feet from any surface water or conduit to surface or groundwater during waste application, if a permanent grass buffer of 35 feet has not been maintained around the surface water.

Notes

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APRIL 2020

Tip of the Month

Records necessary to document compliance should be maintained for at least five years, in addition to the current calendar year.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.			RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3	4
5	6	7	8	9	Good Friday 10	11
Easter 12	13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	18
19	20	21	Earth Day 22	23	24	25
26	27	28	29	30		

May

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 31	25	26	27	28	29	30

MAY 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Calibrate manure spreading equipment for accurate application rates.

A practical approach to calibration is to divide the volume of manure applied in a load by the acreage covered. This equals the application rate.

Notes

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MAY 2020

Tip of the Month

If a permit has requirements for soil test sampling in vegetated buffers, land application areas, or groundwater monitoring, plan to complete these in the upcoming months to meet deadlines.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.					RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2
3	4	5	6	7	8	9
Mother's Day 10	11	12	13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	Armed Forces Day 16
17	18	19	20	21	22	23
24	Memorial Day 25	26	27	28	29	30
31						

June

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

JUNE 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Walk around the waste control system and check for erosion, trees and any maintenance items that may need attention. Also, check your permit as some permits have a requirement for soil sampling of any application fields that are in sensitive groundwater areas.

Notes

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JUNE 2020

Tip of the Month

Have you been keeping up with routine inspections? Lagoon or sediment basin issues will be caught sooner with regular inspections. Use this calendar to record results of inspections.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3	4	5	D-Day 6
7	8	9	10	11	12	13
Flag Day 14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	18	19	20
Father's Day 21	22	23	24	25	26	27
28	29	30	If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.			

July

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

JULY 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____
Head # _____
Animal Type / Wt _____
Head # _____
Animal Type / Wt _____

Manure stockpiles should be placed so as to minimize runoff to streams or surface water prior to spreading.

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JULY 2020

Tip of the Month

Collect and analyze manure and/or wastewater samples at least annually for federal facilities; recommended for state permits. Recommended minimum analysis should include total nitrogen (N), organic N and phosphorus.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.			RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3	Independence Day 4
5	6	7	8	9	10	11
12	13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24 31	25	26	27	28	29

AUGUST 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Check buffer areas for maintenance needs. Erosion areas should be repaired and re-seeded as needed.

Cut and/or spray any seedling trees on berms of wastewater system.

Notes

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AUGUST 2020

Tip of the Month

Adding filter strips of close-growing vegetation on field borders or adjacent to bodies of water can reduce sediment and nutrients in runoff waters. This is especially important with phosphorus but is less effective at removing nitrates.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.						RCS Op Levels: RCS 1: RCS 2: RCS 3: 1
2	3	4	5	6	7	8
9	10	11	12	13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

September

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

SEPTEMBER 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Mortalities shall not be disposed of in any liquid manure, stormwater or process wastewater system. Burial, composting, rendering or permitted incinerations are appropriate disposal methods. Permit changes and prior approvals may be needed. Contact your district office for changes.

Notes

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SEPTEMBER 2020

Tip of the Month

Plan for needed land application prior to winter months. Remember that the time limit for stockpiling of manure is 6 months.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3	4	5
6	Labor Day 7	8	9	10	11	12
13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.		

October

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

OCTOBER 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Manage manure in lots and sediment basins to improve storage life of the retention structure and buffer areas.

Some permits require fall soil sampling. Be sure to check your permit to see if this is one of your sampling requirements.

Notes

Conversion Factors for Manure*

1 ton = 2,000 pounds
1 gallon = 8.3 pounds
1 cubic foot = 55 pounds (dry) to 62 pounds (wet)
1 cubic foot = 7.5 gallons
1 yard = 27 cubic feet

For a quick, solid manure estimate, weigh a five-gallon pail of manure. Subtract the weight of the bucket (~ 2lbs) to get the actual weight of the manure. Multiply the weight of the manure by 40 to get pounds per cubic yard.

* Due to the variability of manure, using the above conversion factors will only provide an estimate of the true value.

OCTOBER 2020

Tip of the Month

Do not supply more manure to crops than is necessary. Plan to cut hay on buffer areas for nutrient removal.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.				RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3
4	5	6	7	8	9	10
11	Columbus Day 12	13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	Halloween 31

November 202

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

NOVEMBER 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Head # _____
Animal Type / Wt _____

Review permit for December 1st. Know your lagoon operational level requirements; dewater as appropriate.

Notes

Conversion Factors for Manure*

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1 cubic foot = 7.5 gallons
1 yard = 27 cubic feet

For a quick, solid manure estimate, weigh a five-gallon pail of manure. Subtract the weight of the bucket (~ 2lbs) to get the actual weight of the manure. Multiply the weight of the manure by 40 to get pounds per cubic yard.

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NOVEMBER 2020

Tip of the Month

Do not apply fertilizers, manure, or lagoon water to frozen or saturated soil, or under conditions where runoff is likely such as immediately before heavy rains, on moderate to steep slopes, or next to streams or other water bodies.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
RCS Op Levels: RCS 1: RCS 2: RCS 3: Daylight Savings ends 1	2	3	4	5	6	7
8	9	10	Veteran's Day 11	12	13	14
RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	18	19	20	21
22	23	24	25	Thanksgiving 26	27	28
29	30					

If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.

December

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

DECEMBER 2020

Date	Precip-itation/ snow (S) (inches)	Field ID (applied to) or RCS ID (transfers)	Daily Livestock Waste and/or Process Wastewater Disposal					Total waste application	
			Soil condition: F = frozen T = thawed SC = snow cover S = saturated	# of acres (applied to)	Crop (growing or cover)	Waste source: solids, liquid	Application method	Solids (tons)	Liquids (gallons)

Head # ____________________
Animal Type / Wt ____________________

Head # ____________________
Animal Type / Wt ____________________

Head # ____________________
Animal Type / Wt ____________________

Make sure items required by the permit are completed and organized for easy access. Keep records for five years plus the current calendar year.

Notes

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1 cubic foot = 55 pounds (dry) to 62 pounds (wet)
1 cubic foot = 7.5 gallons
1 yard = 27 cubic feet

For a quick, solid manure estimate, weigh a five-gallon pail of manure. Subtract the weight of the bucket (~ 2lbs) to get the actual weight of the manure. Multiply the weight of the manure by 40 to get pounds per cubic yard.

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DECEMBER 2020

Tip of the Month

Good recordkeeping gives you the information you need to plan, carry out and refine management, helping make the most of your farm's manure.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
If minimum operating level (storage capacity) from Table 1 in permit is not available, record available feet of storage daily; dewater on all suitable days.		RCS Op Levels: RCS 1: RCS 2: RCS 3: 1	2	3	4	5
6	7	8	9	Hanukkah begins 10	11	12
13	14	RCS Op Levels: RCS 1: RCS 2: RCS 3: 15	16	17	Hanukkah ends 18	19
20	21	22	23	Christmas Eve 24	Christmas Day 25	26
27	28	29	30	New Year's Eve 31		

January

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 31	25	26	27	28	29	30

Agronomic Manure References

Approximate fertilizer value of manure - liquid handling system				
Animal	Available nutrients			
	N	P_2O_5	K_2O	S
lb/ac-in				
Swine	33	25	38	5-8
Beef Cattle	27	20	38	—
Dairy	25	10	32	3
Poultry	72	49	53	—

Ratio of organic -N and NH4-N in manure				
	Solid manure % of total manure N		Liquid manure % of total manure N	
	NH-N	Organic	NH-N	Organic
Dairy	45	55	50	50
Beef	35	65	50	50
Swine	60	40	70	30
Turkey	65	35	—	—

Estimated % of organic N available to crops after manure application			
	Year 1	Year 2	Year 3
Liquid Manure	30	12	6
Solid Manure	25	12	6
Compost	20	6	3

Conversion Factors for Manure Application Rates

Area and Volume

1 acre = 43,560 square feet
1 acre-inch = 27,000 gallons
1 acre-inch = 134 cubic yards 1 cubic yard = 27 cubic feet 1 cubic foot = 7.5 gallons

Approximate Manure Weight and Volume

1 cubic foot = 60–65 lb (fresh manure or slurry)
1 cubic yard = 202 gal or 1,700 lb = 0.85 tons (fresh manure or slurry) 1 cubic yard = 1,100 lb = 0.55 tons (separated solids)
1 cubic yard = 1,400 lb = 0.70 tons (dry stack) 1,000 gal = 4 tons (fresh manure or slurry)
1 ton = 1.2 cubic yards (fresh manure or slurry) 1 ton = 1.8 cubic yards (separated solids)
1 ton = 1.4 cubic yards (dry stack)

DO YOU HAVE UPCOMING PLANS FOR NEW OR EXPANDING FACILITIES? PLANS FOR REDUCTIONS OR EVEN CLOSURE?

This is a reminder to contact your KDHE District Office with any facility changes up front to schedule a site visit before proceeding with any plan development. Then contact your Agricultural Consultant (if needed) and submit your confined feeding facility plans that you may be developing as soon as possible! This includes plans for new facilities (registrations and permit applications), facility modifications or expansions, waste management plans (WMP), nutrient management plans (NMP) or even plans to close facilities and/or lagoons. Early and complete submissions to LWMS are key to avoid having to wait on registration and/or permit approvals.

LWMS contacts, Lists of Agricultural Consultants, required forms, design guidance, and more can be found on the KDHE LWMS website http://www.kdheks.gov/feedlots/index.html.

Kansas
Department of Health
and Environment