ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

Annual Report Form For CAFO Operations Permitted Under NPDES General Permit ARG590000

Reporting Period: 1/1/15 through 12/31/15

Permittee: C + H Hog Farms, Inc. Permit Tracking Number: ARG590001

Number & type of animals: annual average 2,496 swine ≥ 55 lbs, annual average 750 swine < 55 lbs
(beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, turkeys, other.)

Estimated amount of total manure, process water & litter in previous 12 months: 2,529,136 gallons (estimate based on annual average animal population and animal weights)
(Express in tons or gallons)

Estimated amount of total manure, littler and process wastewater transferred to other person by the CAFO in the previous 12 months: 0
(express in tons or gallons, units consistent with previous answer)

Total number of acres available for land application in accordance with NMP: 606.9 (see note below)

Total number of acres used for land application of manure, litter and process wastewater in previous 12 months: 572.4

Summary of all manure, litter or process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume. Please list in chronological order. Add additional pages if necessary.

	Date	Time	Approximate Volume (gallons)
Discharge 1			
Discharge 2			
Discharge 3			
Discharge 4			

Has the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner?

Yes ✓

No ____ Signature Jason Henson Date 1-15-16

Note: Total number of acres available for land application (usable acres) per NMP is 630.7 acres. Due to a map discrepancy, Field 5 is not currently available for land application. The total number of acres available for land application (usable acres) for Field 5 is 23.8 acres. Therefore, the total number of acres available for land application in 2015 was 606.9 acres (630.7 acres minus Field 5's 23.8 acres).

Annual Summary, page 1

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous 12 months (gal or tons/acre)**	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
1					48,000 gal			
2					51,000 gal			
3					60,000 gal			
4					39,000 gal			
7					985,000 gal			
8					48,000 gal			
9					216,000 gal			
10					483,000 gal			

WASTEWATER SAMPLE LOCATION: Holding Pond 1 and Holding Pond 2

You must submit a copy of the wastewater analysis for each sample provided to cooperative extension service or a private lab. The wastewater analysis must include pH (s.u.), total nitrogen, ammonia nitrogen, total potassium, total phosphorus, and percent solid.

In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

Please complete the table on the back for land application report. You must sign and date this report and submit it to the department prior to may 30th of each year. Please keep a copy of this report, the soil analysis, and the wastewater analysis for your record at the facility.

Annual Summary, page 2

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous 12 months (gal or tons/acre)**	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
11					15,000 gal			
12					93,000 gal			
13					429,000 gal			
14					60,000 gal			
15					187,000 gal			
16					63,000 gal			
17					448,000 gal			

WASTEWATER SAMPLE LOCATION: Holding Pond 1 and Holding Pond 2

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In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

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Winter Application
using Manure Sample for Holding Pond 1, Oct 2014

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous ~~12 months~~ (gal or tons/acre)** Jan 1 - Feb 28	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
1	Mixed	4 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000gal	21,000 gal	0	45 ppm	0
4	Mixed	4 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000gal	21,000 gal	0	46 ppm	0
13	Mixed	4 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000gal	129,000 gal	0	23 ppm	0
15	Mixed	4 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000gal	96,000 gal	0	29 ppm	0

WASTEWATER SAMPLE LOCATION: Holding Pond 1, Oct 2014

You must submit a copy of the wastewater analysis for each sample provided to cooperative extension service or a private lab. The wastewater analysis must include pH (s.u.), total nitrogen, ammonia nitrogen, total potassium, total phosphorus, and percent solid.

In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

Please complete the table on the back for land application report. You must sign and date this report and submit it to the department prior to may 30th of each year. Please keep a copy of this report, the soil analysis, and the wastewater analysis for your record at the facility.

Spring Application, page 1

using Manure Sample for Holding Pond 1, Oct 2014

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous ~~12 months~~ (gal or tons/acre)** Mar 1 - Jun 30	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
1	Mixed	6 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000 gal	15,000 gal	0	45 ppm	0
2	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	12,000 gal	0	107 ppm	0
3	Mixed	6 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000 gal	60,000 gal	0	79 ppm	0
7	Mixed	6 tons/acre	33.1 lbs/1000gal	55.6 lbs/1000 gal	289,000 gal	0	94 ppm	0
8	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	27,000 gal	0	80 ppm	0
9	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	30,000 gal	0	53 ppm	0
11	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	15,000 gal	0	27 ppm	0
14	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	24,000 gal	0	15 ppm	0

WASTEWATER SAMPLE LOCATION: Holding Pond 1, Oct 2014

You must submit a copy of the wastewater analysis for each sample provided to cooperative extension service or a private lab. The wastewater analysis must include pH (s.u.), total nitrogen, ammonia nitrogen, total potassium, total phosphorus, and percent solid.

In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

Please complete the table on the back for land application report. You must sign and date this report and submit it to the department prior to may 30th of each year. Please keep a copy of this report, the soil analysis, and the wastewater analysis for your record at the facility.

Spring Application, page 2

using Manure Sample from Holding Pond 1, Oct 2014

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous ~~12 months~~ (gal or tons/acre)** Mar 1 - Jun 30	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
15	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	91,000 gal	0	29 ppm	0
17	Mixed	6 tons/acre	33.1 lbs/1000 gal	55.6 lbs/1000 gal	30,000 gal	0	21 ppm	0

WASTEWATER SAMPLE LOCATION: Holding Pond 1, Oct 2014

You must submit a copy of the wastewater analysis for each sample provided to cooperative extension service or a private lab. The wastewater analysis must include pH (s.u.), total nitrogen, ammonia nitrogen, total potassium, total phosphorus, and percent solid.

In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

Please complete the table on the back for land application report. You must sign and date this report and submit it to the department prior to may 30th of each year. Please keep a copy of this report, the soil analysis, and the wastewater analysis for your record at the facility.

Spring Application
using Manure Sample for Holding Pond 1, Apr 2015

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous ~~12 months~~ (gal or tons/acre)** Mar 1-Jun 30	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
8	Mixed	6 tons/acre	20.1 lbs/1000gal	4.8 lbs/1000gal	21,000 gal	0	80 ppm	0
9	Mixed	6 tons/acre	20.1 lbs/1000gal	4.8 lbs/1000gal	186,000 gal	0	53 ppm	0
10	Mixed	6 tons/acre	20.1 lbs/1000gal	4.8 lbs/1000gal	174,000 gal	0	31 ppm	0
12	Mixed	6 tons/acre	20.1 lbs/1000gal	4.8 lbs/1000gal	33,000 gal	0	72 ppm	0
14	Mixed	6 tons/acre	20.1 lbs/1000gal	4.8 lbs/1000gal	36,000 gal	0	15 ppm	0
17	Mixed	6 tons/acre	20.1 lbs/1000gal	4.8 lbs/1000gal	178,000 gal	0	21 ppm	0

WASTEWATER SAMPLE LOCATION: Holding Pond 1, Apr 2015

You must submit a copy of the wastewater analysis for each sample provided to cooperative extension service or a private lab. The wastewater analysis must include pH (s.u.), total nitrogen, ammonia nitrogen, total potassium, total phosphorus, and percent solid.

In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

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Summer Application
using Manure Sample for Holding Pond 1, Apr 2015

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

Field ID or Name (same as in NMP)	**Crop Planted**	**Crop Yield (lbs., bu., or ton/acre)**	**Nitrogen Content of waste (lbs/1000 gal or lbs/ton)**	**Phosphorus Content of waste (lbs/1000 gal or lbs/ton)**	**Amount of waste applied in previous ~~12 months~~ (gal or tons/acre)** Jul 1 - Oct 31	**Results of soil testing for Nitrogen, if required. Include data for calculations (mg/kg)**	**Results of soil testing for Phosphorus, if required. Include data used for calculations (mg/kg)**	**Amount of supplemental fertilizer, if any, used in previous 12 months. Express lbs/acre in 0-0-0 format**
1	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000gal	12,000 gal	0	45 ppm	0
2	Mixed	6 tons/acre	30.1 lbs/1000 gal	4.8 lbs/1000 gal	39,000 gal	0	67 ppm	0
4	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000 gal	18,000 gal	0	46 ppm	0
10	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000gal	309,000 gal	0	31 ppm	0
12	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000gal	60,000 gal	0	72 ppm	0
13	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000 gal	300,000 gal	0	23 ppm	0
16	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000gal	63,000 gal	0	50 ppm	0
17	Mixed	6 tons/acre	30.1 lbs/1000gal	4.8 lbs/1000gal	240,000 gal	0	21 ppm	0

WASTEWATER SAMPLE LOCATION: Holding Pond 1, Apr 2015

You must submit a copy of the wastewater analysis for each sample provided to cooperative extension service or a private lab. The wastewater analysis must include pH (s.u.), total nitrogen, ammonia nitrogen, total potassium, total phosphorus, and percent solid.

In addition you must submit a copy of the soil analysis for each field with this form. The soil analysis must include pH (su), potassium (lbs/ac), phosphorus (lbs/ac), and nitrates (lbs/ac). At least one soil analysis should be done for each 10 acre track.

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Summer Application
using Manure Sample for Holding Pond 2, Apr 2015

The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs 3.2.5.1.b and 3.2.5.2.d of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph 3.2.5.2 of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 3.2.5.2.4 of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

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7	Mixed	6 tons/acre	15.2 lbs/1000gal	7.9 lbs/1000 gal	696,000 gal	0	94 ppm	0

WASTEWATER SAMPLE LOCATION: Holding Pond 2, Apr 2015

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jason Henson	Jason Henson	1-15-16
OPERATOR (Please Print)	SIGNATURE	DATE

Mail complete annual report form and annual application report to:
Arkansas Department of Environmental Quality
Permits Branch, 5301 Northshore Drive, North Little Rock, AR 72118
Or email to:

AGRICULTURAL DIAGNOSTIC SERVICE LABORATORY
1366 W. Altheimer Dr., Fayetteville, AR 72704
(479)575-3908 agrilab@uark.edu
University of Arkansas, Dept. of Crops, Soils, and Environmental Science

MINNESOTA DEPARTMENT OF AGRICULTURE 2014 Certified Manure Testing Program

LIQUID MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

Name:	KARL VanDEVENDER / ANDREW SHARPLE	*Received in lab:*	*10/30/2014*
Address:	2301 SOUTH UNIVERSITY AVE, RM 305K	*Mailed:*	*11/11/2014*
City:	LITTLE ROCK	State,Zip:	AR 72204-4940
County:		Check #:	

Lab. No.	M41508	M41509				
Sample I.D.	POND #1	POND #2				
Animal type	swine	swine				
age / lbs	no info	no info				
Bedding type	none	none				
Manure type	pond sludge/liquid	pond sludge/liquid				
Sample date	10/28/2014	10/28/2014				
Age of manure	no info	no info				
pH	7.8	8.1				
EC(µmhos/cm)	12890	8410				
% Solids	5.57	2.20				
		-mg/l on as-is basis-				
Total N	3970	870				
Total P	2916	456				
Total K	1423	1024				
Total Ca	2355	459				
NH4-N	993	528				
NO3-N	<0.35	<0.35				
Water Extractable P	194	70				
		-lbs/1000 gal on as-is basis-				
Total N	33.1	7.2				
TOTAL P AS "P2O5"	55.6	8.7				
TOTAL K AS "K20"	14.2	10.2				
Total Ca	19.6	3.8				
NH4-N	8.3	4.4				
NO3-N	<0.003	<0.003				
Water Extractable P	1.6	0.6				

*lbs/1000gal P2O5 = mg/l Total P on "as-is" basis multiplied by 2.29*0.00833
*lbs/1000gal K2O = mg/l Total K on "as-is" basis multiplied by 1.2*0.00833
*Water Extractable P: **1:100 solids to H2O ratio**, I hr shake, centrifuged, filtered, acidified, analysis by ICP

AGRICULTURAL DIAGNOSTIC SERVICE LABORATORY
1366 W. Altheimer Dr., Fayetteville, AR 72704
(479)575-3908 agrilab@uark.edu
University of Arkansas, Dept. of Crops, Soils, and Environmental Science

MINNESOTA DEPARTMENT OF AGRICULTURE 2015 Certified Manure Testing Program

LIQUID MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

Name:	KARL VanDEVENDER / ANDREW SHARPLE	***Received in lab:***	***4/17/2015***
Address:		***Mailed:***	***4/24/2015***
City:		State,Zip:	AR
County:		Phone #:	
E-Mail:	kvan@uaex.edu, sharpley@uark.edu	Check #:	Big Creek Research Project

Lab. No.	M50518	M50519				
Sample I.D.	C&HP1P	C&HP2P				
Animal type	swine	swine				
age / lbs	no info	no info				
Bedding type	none	none				
Manure type	pond liquid	pond liquid				
Sample date	4/16/2015	4/16/2015				
Age of manure	no info	no info				
pH	7.6	8.0				
EC(µmhos/cm)	13580	8710				
% Solids	3.37	2.42				
		-mg/l on as-is basis-				
Total N	2410	1820				
Total P	253	417				
Total K	1358	1044				
Total Ca	102	378				
NH4-N	1291	636				
Water Extractable P	169	89				
		-lbs/1000 gal on as-is basis-				
Total N	20.1	15.2				
TOTAL P AS "P2O5"	4.8	7.9				
TOTAL K AS "K20"	13.6	10.4				
Total Ca	0.9	3.1				
NH4-N	10.8	5.3				
Water Extractable P	1.4	0.7				

*lbs/1000gal P2O5 = mg/l Total P on "as-is" basis multiplied by 2.29*0.00833

*lbs/1000gal K2O = mg/l Total K on "as-is" basis multiplied by 1.2*0.00833

*Water Extractable P: **1:100 solids to H2O ratio**, I hr shake, centrifuged, filtered, acidified, analysis by ICP

UofA UNIVERSITY OF ARKANSAS DIVISION OF AGRICULTURE

Cooperative Extension Service
Soil Analysis Report
Soil Testing And Research Laboratory
Marianna, AR 72360
http://www.uark.edu/depts/soiltest

JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	JH 1		
Acres	23		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38454		
Sample Number:	2045418		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	45	90	Optimum
K	193	386	Above Optimum
Ca	1354	2708	--
Mg	110	220	--
SO4-S	11	22	--
Zn	3.9	7.8	--
Fe	91	182	--
Mn	231	462	--
Cu	0.9	1.8	--
B	0.5	1.0	--
NO3-N	23	46	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.1	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	12	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
70.2	57.5	7.8	4.2	0.7

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	---------- lb/acre ----------						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	30	0	0	0	0	0
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	0	0	0	0	0	0
Crop 3	Warm-Season Grasses (MNT) (207)	60	0	0	0	0	0	0

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

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Cooperative Extension Service
Soil Analysis Report
Soil Testing And Research Laboratory
Marianna, AR 72360
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JASON HENSON	Client ID:	8706881318
HC 72 BOX 10		
MTN JUDEA	AR	72655
Date Processed:	4/1/2014	
Field ID:	JH 2	
Acres	13	
Lime Applied in the last 4 years:	No	
Leveled in past 4 years:	No	
Irrigation:	Unknown	
County:	Pope	
Lab Number:	38456	
Sample Number:	2045420	

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	67	134	Above Optimum
K	232	464	Above Optimum
Ca	998	1996	--
Mg	103	206	--
SO4-S	12	24	--
Zn	3.2	6.4	--
Fe	102	204	--
Mn	169	338	--
Cu	0.7	1.4	--
B	0.4	0.8	--
NO3-N	42	84	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.0	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	9	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
68.3	52.7	9.1	6.3	0.3

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	lb/acre						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	0	0	0	0	0	0
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	0	0	0	0	0	0
Crop 3	Warm-Season Grasses (MNT) (207)	60	0	0	0	0	0	0

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

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JASON HENSON		**Client ID:**	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	CC 3		
Acres	25		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38457		
Sample Number:	2045421		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	79	158	Above Optimum
K	65	130	Low
Ca	1659	3318	--
Mg	56	112	--
SO4-S	7	14	--
Zn	2.9	5.8	--
Fe	123	246	--
Mn	201	402	--
Cu	1.2	2.4	--
B	0.4	0.8	--
NO3-N	60	120	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.4	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	13	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam - Silty Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
72.0	66.3	3.7	1.3	0.6

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Hay (134)	---------- lb/acre ----------						
Crop 1	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	0	300	0	0	0	0
Crop 2	Warm-Season Grasses (MNT) (207)	60	0	110	0	0	0	0
Crop 3	Winter Annuals (EST/MNT) (210)	90	0	80	0	0	0	0

4. Crop 1 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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JASON HENSON		**Client ID:**	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	JH 4		
Acres	15		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38458		
Sample Number:	2045422		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	46	92	Optimum
K	164	328	Optimum
Ca	953	1906	--
Mg	118	236	--
SO4-S	13	26	--
Zn	3.8	7.6	--
Fe	164	328	--
Mn	68	136	--
Cu	0.6	1.2	--
B	0.3	0.6	--
NO3-N	27	54	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.1	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	12	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
53.4	40.4	8.3	3.6	1.1

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	---------- lb/acre ----------						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	30	40	0	0	0	5000
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	0	0	0	0	0	5000
Crop 3	Warm-Season Grasses (MNT) (207)	60	0	0	0	0	0	5000

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	EGC 7		
Acres	78		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38462		
Sample Number:	2045426		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	94	188	Above Optimum
K	78	156	Low
Ca	564	1128	--
Mg	80	160	--
SO4-S	12	24	--
Zn	3.6	7.2	--
Fe	156	312	--
Mn	159	318	--
Cu	1.3	2.6	--
B	0.2	0.4	--
NO3-N	21	42	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.0	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	9	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
40.6	30.5	7.2	2.2	0.7

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Hay (134)	lb/acre						
Crop 1	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	0	300	0	0	0	5000
Crop 2	Warm-Season Grasses (MNT) (207)	60	0	110	0	0	0	5000
Crop 3	Winter Annuals (EST/MNT) (210)	90	0	80	0	0	0	5000

4. Crop 1 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655

Date Processed:	4/1/2014
Field ID:	CC 8
Acres	13
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Pope
Lab Number:	38464
Sample Number:	2045428

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	80	160	Above Optimum
K	102	204	Medium
Ca	2133	4266	--
Mg	71	142	--
SO4-S	9	18	--
Zn	3.1	6.2	--
Fe	143	286	--
Mn	192	384	--
Cu	0.9	1.8	--
B	0.4	0.8	--
NO3-N	25	50	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.8	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	14	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silty Clay Loam - Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
82.2	75.8	4.2	1.9	0.4

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (207)	---------- lb/acre ----------						
Crop 1	Warm-Season Grasses (MNT) (207)	60	0	60	0	0	0	0
Crop 2	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	0	250	0	0	0	0
Crop 3	Winter Annuals (EST/MNT) (210)	90	0	40	0	0	0	0

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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JASON HENSON	Client ID:	8706881318
HC 72 BOX 10		
MTN JUDEA	AR	72655

Date Processed:	4/1/2014
Field ID:	CC 9
Acres	49
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Pope
Lab Number:	38467
Sample Number:	2045474

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	53	106	Above Optimum
K	65	130	Low
Ca	2160	4320	--
Mg	73	146	--
SO4-S	9	18	--
Zn	2.7	5.4	--
Fe	117	234	--
Mn	94	188	--
Cu	1.5	3.0	--
B	0.4	0.8	--
NO3-N	18	36	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.5	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	15	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silty Clay Loam - Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
79.5	73.8	4.2	1.1	0.4

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Hay (134)	---------- lb/acre ----------						
Crop 1	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	0	300	0	0	0	0
Crop 2	Warm-Season Grasses (MNT) (207)	60	0	110	0	0	0	0
Crop 3	Winter Annuals (EST/MNT) (210)	90	0	80	0	0	0	0

4. Crop 1 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	FD 10		
Acres	25		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38469		
Sample Number:	2045476		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	31	62	Medium
K	71	142	Low
Ca	1133	2266	--
Mg	91	182	--
SO4-S	12	24	--
Zn	3.1	6.2	--
Fe	185	370	--
Mn	125	250	--
Cu	1.5	3.0	--
B	0.3	0.6	--
NO3-N	16	32	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.2	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	13	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam - Silty Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
50.6	43.0	5.8	1.4	0.5

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (207)	---------- lb/acre ----------						
Crop 1	Warm-Season Grasses (MNT) (207)	60	40	110	0	0	0	5000
Crop 2	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	90	300	0	0	0	5000
Crop 3	Winter Annuals (EST/MNT) (210)	90	30	80	0	0	0	5000

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655

Date Processed:	4/1/2014
Field ID:	FD 11
Acres	30
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Pope
Lab Number:	38478
Sample Number:	2045495

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	27	54	Medium
K	173	346	Optimum
Ca	546	1092	--
Mg	101	202	--
SO4-S	15	30	--
Zn	2.2	4.4	--
Fe	98	196	--
Mn	161	322	--
Cu	0.5	1.0	--
B	0.3	0.6	--
NO3-N	15	30	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.2	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	10	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
42.6	28.5	8.8	4.6	0.6

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	---------- lb/acre ----------						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	40	40	0	0	0	5000
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	40	0	0	0	0	5000
Crop 3	Warm-Season Grasses (MNT) (207)	60	40	0	0	0	0	5000

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655

Date Processed:	4/1/2014
Field ID:	BF 12
Acres	12
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Pope
Lab Number:	38479
Sample Number:	2045496

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	72	144	Above Optimum
K	112	224	Medium
Ca	1220	2440	--
Mg	90	180	--
SO4-S	12	24	--
Zn	2.9	5.8	--
Fe	128	256	--
Mn	138	276	--
Cu	1.3	2.6	--
B	0.4	0.8	--
NO3-N	27	54	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.7	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	12	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam - Silty Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
61.5	52.2	6.4	2.5	0.4

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (207)	---------- lb/acre ----------						
Crop 1	Warm-Season Grasses (MNT) (207)	60	0	60	0	0	0	4000
Crop 2	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	0	250	0	0	0	4000
Crop 3	Winter Annuals (EST/MNT) (210)	90	0	40	0	0	0	4000

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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Cooperative Extension Service
Soil Analysis Report
Soil Testing And Research Laboratory
Marianna, AR 72360
http://www.uark.edu/depts/soiltest

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JASON HENSON	Client ID:	8706881318
HC 72 BOX 10		
MTN JUDEA	AR	72655
Date Processed:	4/1/2014	
Field ID:	CC 13	
Acres	20	
Lime Applied in the last 4 years:	No	
Leveled in past 4 years:	No	
Irrigation:	Unknown	
County:	Pope	
Lab Number:	38481	
Sample Number:	2045498	

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	23	46	Low
K	104	208	Medium
Ca	1416	2832	--
Mg	65	130	--
SO4-S	11	22	--
Zn	3.6	7.2	--
Fe	79	158	--
Mn	321	642	--
Cu	0.9	1.8	--
B	0.4	0.8	--
NO3-N	23	46	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.3	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	11	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
72.6	64.7	4.9	2.4	0.6

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	---------- lb/acre ----------						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	80	60	0	0	0	0
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	70	50	0	0	0	0
Crop 3	Warm-Season Grasses (MNT) (207)	60	70	60	0	0	0	0

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	CC 14		
Acres	22		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38484		
Sample Number:	2045501		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	15	30	Very Low
K	106	212	Medium
Ca	703	1406	--
Mg	66	132	--
SO4-S	12	24	--
Zn	3.7	7.4	--
Fe	93	186	--
Mn	287	574	--
Cu	0.8	1.6	--
B	0.4	0.8	--
NO3-N	37	74	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.6	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	8	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
52.4	41.9	6.5	3.2	0.7

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	---------- lb/acre ----------						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	120	60	0	0	0	4000
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	100	50	0	0	0	4000
Crop 3	Warm-Season Grasses (MNT) (207)	60	100	60	0	0	0	4000

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655

Date Processed:	4/1/2014
Field ID:	C1C 15
Acres	30
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Pope
Lab Number:	38486
Sample Number:	2045503

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	29	58	Medium
K	184	368	Above Optimum
Ca	707	1414	--
Mg	94	188	--
SO4-S	13	26	--
Zn	3.4	6.8	--
Fe	91	182	--
Mn	301	602	--
Cu	1.1	2.2	--
B	0.4	0.8	--
NO3-N	40	80	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.5	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	9	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
52.0	37.7	8.4	5.0	0.9

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (212)	---------- lb/acre ----------						
Crop 1	Mixed Cool and Warm-Season Grasses for Pasture (212)	60	40	0	0	0	0	4000
Crop 2	Pasture - Cool-Season Grasses (MNT) (203)	60	40	0	0	0	0	4000
Crop 3	Warm-Season Grasses (MNT) (207)	60	40	0	0	0	0	4000

4. Crop 1 Notes:

To favor cool-season grasses, apply N in late winter. To favor warm-season grasses, do not apply N until May 1. For higher production, topdress 50 lb N/Acre after every 4-6 weeks of grazing or as needed.

5. Crop 2 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

6. Crop 3 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655
Date Processed:	4/1/2014		
Field ID:	BH 16		
Acres	32		
Lime Applied in the last 4 years:	No		
Leveled in past 4 years:	No		
Irrigation:	Unknown		
County:	Pope		
Lab Number:	38488		
Sample Number:	2045505		

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	50	100	Optimum
K	122	244	Medium
Ca	510	1020	--
Mg	70	140	--
SO4-S	12	24	--
Zn	2.4	4.8	--
Fe	142	284	--
Mn	131	262	--
Cu	0.8	1.6	--
B	0.2	0.4	--
NO3-N	12	24	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.3	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	8	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
43.9	31.8	7.3	3.9	0.9

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (207)	---------- lb/acre ----------						
Crop 1	Warm-Season Grasses (MNT) (207)	60	0	60	0	0	0	5000
Crop 2	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	45	250	0	0	0	5000
Crop 3	Winter Annuals (EST/MNT) (210)	90	0	40	0	0	0	5000

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

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JASON HENSON		Client ID:	8706881318
HC 72 BOX 10			
MTN JUDEA	AR		72655

Date Processed:	4/1/2014
Field ID:	C1C 17
Acres	30
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Pope
Lab Number:	38471
Sample Number:	2045506

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	21	42	Low
K	59	118	Very Low
Ca	1732	3464	--
Mg	72	144	--
SO4-S	12	24	--
Zn	2.6	5.2	--
Fe	111	222	--
Mn	156	312	--
Cu	1.0	2.0	--
B	0.3	0.6	--
NO3-N	15	30	--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	6.2	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	13	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam - Silty Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
73.0	66.8	4.6	1.2	0.5

3. Recommendations

(Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (207)	---------- lb/acre ----------						
Crop 1	Warm-Season Grasses (MNT) (207)	60	70	160	0	0	0	0
Crop 2	Hay - Warm-Season Grasses (MNT) - 6 ton/acre (134)	300	110	350	0	0	0	0
Crop 3	Winter Annuals (EST/MNT) (210)	90	40	120	0	0	0	0

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

5. Crop 2 Notes:

For optimum fertilizer efficiency, divide the recommended N, P, and K rates by the estimated number of harvests/year. Make the first fertilizer application in spring when night temperatures are > 60 degrees F for one week. Make subsequent applications following each harvest. Do not apply N after Sept. 1.
If S deficiency has occurred previously on this field apply 20 lb SO4-S/Acre.

6. Crop 3 Notes:

Apply the recommended P and K fertilizer rates and one-third of the total N rate immediately before or after stand is successfully established. Apply the remaining N(60 lb N/Acre/application) during mid February. For higher production, apply an additional 50 lb N/Acre in mid March.

Arkansas Nutrient Managemnt Planner with 2009 PI (Beta draft ver 09162015)

Planner:	Monica Hancock
Plan Description:	C & H Hog Farms

Date:	11/23/2015

Beta Test Version for Use by Select Planners working with Author. This worksheet is intended to assist in the writing of Nutrient Management Plans for the application of manure to pasture and hay land. To do this, the worksheet estimates the litter production for the farm, estimates the P Index risk value for the defined conditions of each field, assists with the allocation of nutrients to the various receiving fields, and estimates the amount of litter available for off farm use. This worksheet is the result of an effort to develop a reliable training/planning tool faithful to the 2009 Arkansas P Index developed by a multi-agency effort. However, no guarantees are made, and any observed problems or suggestions for improvement should be directed to Karl VanDevender at kvan@uaex.edu.

Nutrient Source and Description Information

Manure Source	Source Type	Amount Available		N Concentration		P2O5 Concentration		K2O Concentration		Water Extractable P		Alum
HP 1 Oct 2014	Liquid Manure	1	1000 gal	33.1	lb/1000 gal	55.6	lb/1000 gal	14.2	lb/1000 gal	1.60	lb/1000 gal	No
HP 1 April 2015	Liquid Manure	1	1000 gal	20.1	lb/1000 gal	4.8	lb/1000 gal	13.6	lb/1000 gal	1.40	lb/1000 gal	No
HP 2 April 2015	Liquid Manure	1	1000 gal	15.2	lb/1000 gal	7.9	lb/1000 gal	10.4	lb/1000 gal	0.70	lb/1000 gal	No

Nutrient Loss and Mineralization Factors

Manure Source	N		P2O5		K2O	
	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)
HP 1 Oct 2014		25%				
HP 1 April 2015		25%				
HP 2 April 2015		25%				
0						
0						

Estimated Plant Available Nutrients

Manure Source	N			P2O5			K2O			Water Extractable P		
	Concentration		Total (lb)	Concentration		Total (lb)	Concentration		Total (lb)	Concentration		Total (lb)
HP 1 Oct 2014	24.83	lb/1000 gal	25	55.60	lb/1000 gal	56	14.20	lb/1000 gal	14	1.60	lb/1000 gal	1.6
HP 1 April 2015	15.08	lb/1000 gal	15	4.80	lb/1000 gal	5	13.60	lb/1000 gal	14	1.40	lb/1000 gal	1.4
HP 2 April 2015	11.40	lb/1000 gal	11	7.90	lb/1000 gal	8	10.40	lb/1000 gal	10	0.70	lb/1000 gal	0.7
0												
0												
			51			68			38			4

Fields Shown		17	- - - General Field Information - - -			- - - General Field Information - - -				- - - General Field Information - - -				- - - General Field Information - - -		- - - General Field Information - - -		- - - General Fi
						Slope Gradient (%)				Slope Length (ft)				Flooding Frequency				
Total Annual		Field	Field Area (ac)	Appl Area (ac)	Soil Map Unit	Min	Max	Rep	Used	Min	Max	Rep	Used	Data Base Default	Used	Predominate Vegetation	Percent Ground Cover	Conservation Support Practices (P)
PI Value	N Balence (+/-)	(Column Shown Value)																
		(Column Default Value)																
27	-13	H1	7.30	7.30	42	3	8	5	5	15	75	45	45	None	None	Grass	95-100	None
20	-12	H2	6.00	6.00	43	8	20	14	14	15	30	20	20	None	None	Grass	95-100	None
35	-190	H3	13.60	13.60	48	0	3	2	2	15	75	45	45	Occasional	Occasional	Grass	95-100	None
24	-43	H4	6.80	6.80	43	8	20	14	14	15	30	20	20	None	None	Grass	95-100	None
52	-65	H7	64.30	64.30	48	0	3	2	2	15	75	45	45	Occasional	Occasional	Grass	95-100	None
19	-185	H8	8.60	8.60	51	2	5	2.5	2.5	15	75	45	45	None	None	Grass	95-100	None
26	-200	H9	35.50	35.50	50	0	3	2	2	15	75	45	45	Occasional	Occasional	Grass	95-100	None
23	-51	H10	29.30	29.30	51	2	5	2.5	2.5	15	75	45	45	None	None	Grass	95-100	None
5	-134	H11	14.20	14.20	43	8	20	14	14	15	30	20	20	None	None	Grass	95-100	None
31	-177	H12	11.40	11.40	50	0	3	2	2	15	75	45	45	Occasional	Occasional	Grass	95-100	None
22	-8	H13	50.90	50.90	43	8	20	14	14	15	30	20	20	None	None	Grass	95-100	None
17	-19	H14	8.10	8.10	43	8	20	14	14	15	30	20	20	None	None	Grass	95-100	None
23	-36	H15	37.50	37.50	43	8	20	14	14	15	30	20	20	None	None	Grass	95-100	None
16	-238	H16	15.20	15.20	50	0	3	2	2	15	75	45	45	Occasional	Occasional	Grass	95-100	None
23	-79	H17	31.90	31.90	1	3	8	5	5	15	75	45	45	None	None	Grass	95-100	None
Farm Totals			340.60	340.60														
Available Surpluses/Deficits (+/-)																		

Fields Shown		17	eld Information - - - - - General Field Information - - -			Additional Best Management Practices									- - - Nutrient Application Inf - - - Application Group 1 -	
Total Annual		Field	Pasture Use	RUSLE 1 (ton/ac)	RUSLE 2 (ton/ac)	Diversion	Terrace	Pond	Filter Strip	Grassed Waterway	Fencing	Riparian Forest Buffer	Riparian Herbaceous Cover	Field Borders	Timing	Appl Method
PI Value	N Balence (+/-)	(Column Shown Value)														
		(Column Default Value)														
27	-13	H1	Rotational Grazing	0.12	0.12										Nov-Feb	Surface
20	-12	H2	Rotational Grazing	0.28	0.28											
35	-190	H3	Rotational Grazing	0.05	0.05											
24	-43	H4	Rotational Grazing	0.28	0.28										Nov-Feb	Surface
52	-65	H7	Rotational Grazing	0.05	0.05											
19	-185	H8	Rotational Grazing	0.05	0.05											
26	-200	H9	Rotational Grazing	0.05	0.05											
23	-51	H10	Rotational Grazing	0.05	0.05											
5	-134	H11	Rotational Grazing	0.28	0.28											
31	-177	H12	Rotational Grazing	0.05	0.05											
22	-8	H13	Rotational Grazing	0.28	0.28										Nov-Feb	Surface
17	-19	H14	Rotational Grazing	0.28	0.28											
23	-36	H15	Rotational Grazing	0.28	0.28										Nov-Feb	Surface
16	-238	H16	Rotational Grazing	0.05	0.05											
23	-79	H17	Rotational Grazing	0.12	0.12											

Farm Totals
Available
Surpluses/Deficits (+/-)

Fields Shown		17	ormation - - -- - - Nutrient Application Information - - -- - - Nutrient Application Information - - -- - - Nutrient Application Information - - -- - - Nutrient Application Information - - -- - - Nutrient Application Ir																					
Total Annual		Field	- - - - - Application Group 1 - - - - - - Application Group 1 - - -									- - - Application Group 2 - - - - - Application Group 2 - - - - - - Application Group 2 - - -												- - - Applicat
			Nutrient Source	Bulk Rate	Units	N	P2O5	K2O	Group Sub PI	Group Sub PI Range	Timing	Appl Method	Nutrient Source	Bulk Rate	N	P2O5	K2O	Group Sub PI	Group Sub PI Range	Timing
						(lb/ac)	(lb/ac)	(lb/ac)							(lb/ac)	(lb/ac)	(lb/ac)			
PI Value	N Balence (+/-)	(Column Shown Value)				Show	Show	Show							Show	Show	Show			
		(Column Default Value)																		
27	-13	H1	HP 1 Oct 2014	2.88	1000 gal/ac	71	160	41	13	Low	March-June	Surface	HP 1 Oct 2014	2.05	51	114	29	6	Low	
20	-12	H2									March-June	Surface	HP 1 Oct 2014	2.00	50	111	28	6	Low	
35	-190	H3									March-June	Surface	HP 1 Oct 2014	4.41	110	245	63	23	Low	
24	-43	H4	HP 1 Oct 2014	3.09	1000 gal/ac	77	172	44	15	Low										
52	-65	H7									March-June	Surface	HP 1 Oct 2014	4.49	112	250	64	23	Low	
19	-185	H8									March-June	Surface	HP 1 Oct 2014	3.14	78	175	45	9	Low	March-June
26	-200	H9									March-June	Surface	HP 1 Oct 2014	0.85	21	47	12	4	Low	March-June
23	-51	H10																		March-June
5	-134	H11									March-June	Surface	HP 1 Oct 2014	1.06	26	59	15	3	Low	
31	-177	H12																		March-June
22	-8	H13	HP 1 Oct 2014	2.53	1000 gal/ac	63	141	36	12	Low										
17	-19	H14									March-June	Surface	HP 1 Oct 2014	2.96	74	165	42	9	Low	March-June
23	-36	H15	HP 1 Oct 2014	2.56	1000 gal/ac	64	142	36	12	Low	March-June	Surface	HP 1 Oct 2014	2.43	60	135	34	7	Low	
16	-238	H16																		
23	-79	H17									March-June	Surface	HP 1 Oct 2014	0.94	23	52	13	3	Low	March-June

Farm Totals
Available
Surpluses/Deficits (+/-)

Fields Shown		17	nformation - - - - - Nutrient Application Information - - - - - Nutrient Application Information - - - - - Nutrient Application Information - - - - - Nutrient Application Information - - - - - Nutrient Applicat																	
			ion Group 3 - - - - - - Application Group 3 - - - - - - Application Group 3 - - -									- - - Application Group 4 - - - - - - Application Group 4 - - - - - - Application Group 4 - - -								
Total Annual		Field	Appl Method	Nutrient Source	Bulk Rate	Units	N	P2O5	K2O	Group Sub PI	Group Sub PI Range	Timing	Appl Method	Nutrient Source	Bulk Rate	Units	N	P2O5	K2O	Group Sub PI
PI Value	N Balence (+/-)						(lb/ac)	(lb/ac)	(lb/ac)								(lb/ac)	(lb/ac)	(lb/ac)	
		(Column Shown Value)					Show	Show	Show			Show	Show	Show	Show	Show	Show	Show	Show	Show
		(Column Default Value)																		
27	-13	H1										July-Oct	Surface	HP 1 April 2015	1.64	1000 gal/ac	25	8	22	2
20	-12	H2										July-Oct	Surface	HP 1 April 2015	6.50	1000 gal/ac	98	31	88	8
35	-190	H3																		
24	-43	H4										July-Oct	Surface	HP 1 April 2015	2.65	1000 gal/ac	40	13	36	3
52	-65	H7																		
19	-185	H8	Surface	HP 1 April 2015	2.44	1000 gal/ac	37	12	33	4	Low									
26	-200	H9	Surface	HP 1 April 2015	5.24	1000 gal/ac	79	25	71	14	Low									
23	-51	H10	Surface	HP 1 April 2015	5.94	1000 gal/ac	90	29	81	9	Low	July-Oct	Surface	HP 1 April 2015	10.55	1000 gal/ac	159	51	143	12
5	-134	H11																		
31	-177	H12	Surface	HP 1 April 2015	2.89	1000 gal/ac	44	14	39	8	Low	July-Oct	Surface	HP 1 April 2015	5.26	1000 gal/ac	79	25	72	12
22	-8	H13										July-Oct	Surface	HP 1 April 2015	5.89	1000 gal/ac	89	28	80	7
17	-19	H14	Surface	HP 1 April 2015	4.44	1000 gal/ac	67	21	60	7	Low									
23	-36	H15																		
16	-238	H16										July-Oct	Surface	HP 1 April 2015	4.14	1000 gal/ac	62	20	56	10
23	-79	H17	Surface	HP 1 April 2015	5.58	1000 gal/ac	84	27	76	9	Low	July-Oct	Surface	HP 1 April 2015	7.52	1000 gal/ac	113	36	102	9

Farm Totals
Available
Surpluses/Deficits (+/-)

Fields Shown		17	ion Information - - - - - Nutrient Application Information - - - - - Nutrient Application Information - - -											Soil Test P and Soil Sub PI				Application Totals		To Soil + A
Total Annual		Field	Group Sub PI Range	- - - Application Group 5 - - - Timing	Appl Method	- - - Application Group 5 - - - Nutrient Source	Bulk Rate	- - - Application Group 5 - - - Units	N	P2O5	K2O	Group Sub PI	Group Sub PI Range	ppm	lb/ac	Soil Sub PI	Soil Sub Range	App Sub PIs Sum	App Sub PIs Range	Total PI Value
PI Value	N Balence (+/-)	(Column Shown Value)	Show	Show	Show	Show	Show	Show	(lb/ac) Show	(lb/ac) Show	(lb/ac) Show	Show	Show							
		(Column Default Value)																		
27	-13	H1	Low											45	60	6	Low	21	Low	27
20	-12	H2	Low											67	89	6	Low	14	Low	20
35	-190	H3												79	105	12	Low	23	Low	35
24	-43	H4	Low											46	61	6	Low	18	Low	24
52	-65	H7		July-Oct	Surface	HP 2 April 2015	10.82	1000 gal/ac	123	86	113	15	Low	94	125	14	Low	38	Medium	52
19	-185	H8												80	106	6	Low	13	Low	19
26	-200	H9												53	70	8	Low	18	Low	26
23	-51	H10	Low											31	41	2	Low	21	Low	23
5	-134	H11												27	36	2	Low	3	Low	5
31	-177	H12	Low											72	96	11	Low	20	Low	31
22	-8	H13	Low											23	31	3	Low	19	Low	22
17	-19	H14												15	20	1	Low	16	Low	17
23	-36	H15												29	39	4	Low	19	Low	23
16	-238	H16	Low											50	67	6	Low	10	Low	16
23	-79	H17	Low											21	28	2	Low	21	Low	23

Farm Totals
Available
Surpluses/Deficits (+/-)

Fields Shown		17	tal = pplications	Per Acre Nutrient Budget									- - - Per Field Nutrient Budget - - - - - - Per Fiel		
				Application Rate Totals			Nutrient Recommendation			Surpluses / Deficits (+/-)			Application Rate Totals		
Total Annual		Field	PI Range	N (lb/ac)	P2O5 (lb/ac)	K2O (lb/ac)	N (lb/ac)	P2O5 (lb/ac)	K2O (lb/ac)	N (lb/ac)	P2O5 (lb/ac)	K2O (lb/ac)	N (lb/field)	P2O5 (lb/field)	K2O (lb/field)
PI Value	N Balence (+/-)	(Column Shown Value)													
		(Column Default Value)													
27	-13	H1	Low	147	282	92	160	30	0	-13	252	92	1,075	2,059	674
20	-12	H2	Low	148	142	117	160	0	0	-12	142	117	886	854	701
35	-190	H3	Medium	110	245	63	300	0	300	-190	245	-237	1,490	3,336	852
24	-43	H4	Low	117	184	80	160	30	40	-43	154	40	793	1,254	543
52	-65	H7	Medium	235	335	176	300	0	300	-65	335	-124	15,109	21,567	11,342
19	-185	H8	Low	115	186	78	300	0	250	-185	186	-172	987	1,602	669
26	-200	H9	Low	100	72	83	300	0	300	-200	72	-217	3,549	2,561	2,956
23	-51	H10	Low	249	79	224	300	90	300	-51	-11	-76	7,281	2,318	6,569
5	-134	H11	Low	26	59	15	160	40	40	-134	19	-25	372	834	213
31	-177	H12	Low	123	39	111	300	0	250	-177	39	-139	1,402	446	1,265
22	-8	H13	Low	152	169	116	160	80	60	-8	89	56	7,725	8,612	5,912
17	-19	H14	Low	141	186	103	160	120	60	-19	66	43	1,139	1,507	830
23	-36	H15	Low	124	277	71	160	40	0	-36	237	71	4,642	10,397	2,655
16	-238	H16	Low	62	20	56	300	45	250	-238	-25	-194	950	302	857
23	-79	H17	Low	221	115	192	300	110	350	-79	5	-158	7,046	3,674	6,111
Farm Totals													54,444	61,326	42,149
Available													51	68	38
Surpluses/Deficits (+/-)													-54,393	-61,257	-42,111

Fields Shown		17	d Nutrient Budget - - - - - - Per Field Nutrient Budget - - - - - - Per Field Nutrient Budget - - -						1000 gal					
			Nutrient Recommendation (lb/field)			Surpluses / Deficits (+/-)			March-June		July-Oct		Nov-Feb	
Total Annual		Field	N (lb/field)	P2O5 (lb/field)	K2O (lb/field)	N (lb/field)	P2O5 (lb/field)	K2O (lb/field)	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field
PI Value	N Balence (+/-)	(Column Shown Value)												
		(Column Default Value)												
27	-13	H1	1,168	219	0	-93	1,840	674	2.05	15.00			2.88	21.00
20	-12	H2	960	0	0	-74	854	701	2.00	12.00				
35	-190	H3	4,080	0	4,080	-2,591	3,336	-3,228	4.41	60.00				
24	-43	H4	1,088	204	272	-295	1,050	271					3.09	21.00
52	-65	H7	19,290	0	19,290	-4,181	21,567	-7,948	4.49	289.00				
19	-185	H8	2,580	0	2,150	-1,593	1,602	-1,481	3.14	27.00				
26	-200	H9	10,650	0	10,650	-7,101	2,561	-7,694	0.85	30.00				
23	-51	H10	8,790	2,637	8,790	-1,509	-319	-2,221						
5	-134	H11	2,272	568	568	-1,900	266	-355	1.06	15.00				
31	-177	H12	3,420	0	2,850	-2,018	446	-1,585						
22	-8	H13	8,144	4,072	3,054	-419	4,540	2,858					2.53	129.00
17	-19	H14	1,296	972	486	-158	535	344	2.96	24.00				
23	-36	H15	6,000	1,500	0	-1,358	8,897	2,655	2.43	91.00			2.56	96.00
16	-238	H16	4,560	684	3,800	-3,610	-382	-2,943						
23	-79	H17	9,570	3,509	11,165	-2,524	165	-5,054	0.94	30.00				
Farm Totals			83,868	14,365	67,155	-29,424	46,961	-25,006		593.00				267.00

Available
Surpluses/Deficits (+/-)

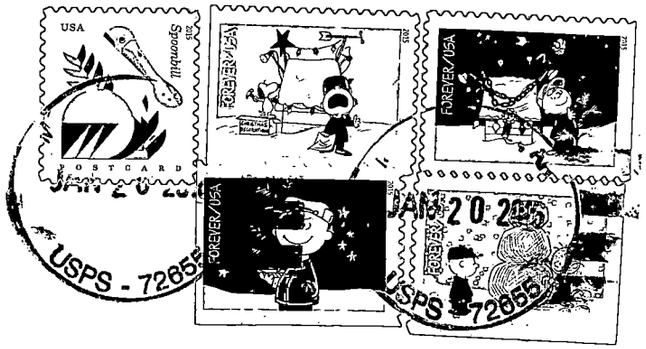
Fields Shown		17			1000 gal									
			Annual		March-June		July-Oct		Nov-Feb		Annual		March-June	
Total Annual		Field	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field
PI Value	N Balence (+/-)	(Column Shown Value)												
		(Column Default Value)												
27	-13	H1	4.93	36.00			1.64	12.00			1.64	12.00		
20	-12	H2	2.00	12.00			6.50	39.00			6.50	39.00		
35	-190	H3	4.41	60.00										
24	-43	H4	3.09	21.00			2.65	18.00			2.65	18.00		
52	-65	H7	4.49	289.00										
19	-185	H8	3.14	27.00	2.44	21.00					2.44	21.00		
26	-200	H9	0.85	30.00	5.24	186.00					5.24	186.00		
23	-51	H10			5.94	174.00	10.55	309.00			16.48	483.00		
5	-134	H11	1.06	15.00										
31	-177	H12			2.89	33.00	5.26	60.00			8.16	93.00		
22	-8	H13	2.53	129.00			5.89	300.00			5.89	300.00		
17	-19	H14	2.96	24.00	4.44	36.00					4.44	36.00		
23	-36	H15	4.99	187.00										
16	-238	H16					4.14	63.00			4.14	63.00		
23	-79	H17	0.94	30.00	5.58	178.00	7.52	240.00			13.10	418.00		
Farm Totals				860.00		628.00		1041.00				1669.00		
Available				1								1		
Surpluses/Deficits (+/-)				-859								-1,668		

Fields Shown		17	1000 gal						1000 gal	
			July-Oct		Nov-Feb		Annual		Annual	
Total Annual		Field	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field	Per Acre	Per Field
PI Value	N Balence (+/-)	(Column Shown Value)								
		(Column Default Value)								
27	-13	H1							6.58	48
20	-12	H2							8.50	51
35	-190	H3							4.41	60
24	-43	H4							5.74	39
52	-65	H7	10.82	696.00			10.82	696.00	15.32	985
19	-185	H8							5.58	48
26	-200	H9							6.08	216
23	-51	H10							16.48	483
5	-134	H11							1.06	15
31	-177	H12							8.16	93
22	-8	H13							8.43	429
17	-19	H14							7.41	60
23	-36	H15							4.99	187
16	-238	H16							4.14	63
23	-79	H17							14.04	448
Farm Totals				696.00				696.00		
Available								1		
Surpluses/Deficits (+/-)								-695		

Fields Shown		17			Nov-Feb			March-June			July-October			Yearly Total
Total Annual		Field			HP 1 Oct 2014	HP 1 April 2015	HP 2 April 2015	HP 1 Oct 2014	HP 1 April 2015	HP 2 April 2015	HP 1 Oct 2014	HP 1 April 2015	HP 2 April 2015	
PI Value	N Balence (+/-)	(Column Shown Value) (Column Default Value)	Field	Soil only P Index Timing value	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index	Gal/ac Gal/Field P Index
27	-13	H1	H1	Nov-Feb 6	2.88 21,000 13			2.05 15,000 6	.			1.64 12,000 2	.	6.58 48,000 27
20	-12	H2	H2	March-June 6	.			2. 12,000 6	.			6.5 39,000 8	.	8.5 51,000 20
35	-190	H3	H3	March-June 12	.			4.41 60,000 23	.			.	.	4.41 60,000 35
24	-43	H4	H4	Nov-Feb 6	3.09 21,000 15			.	.			2.65 18,000 3	.	5.74 39,000 24
52	-65	H7	H7	March-June 14	.			4.49 289,000 23	.			.	10.82 696,000 15	15.32 985,000 52
19	-185	H8	H8	March-June 6	.			3.14 27,000 9	2.44 21,000 4			.	.	5.58 48,000 19
26	-200	H9	H9	March-June 8	.			.85 30,000 4	5.24 186,000 14			.	.	6.08 216,000 26
23	-51	H10	H10	March-June 2	.			.	5.94 174,000 9			10.55 309,000 12	.	16.48 483,000 23
5	-134	H11	H11	March-June 2	.			1.06 15,000 3	.			.	.	1.06 15,000 5
31	-177	H12	H12	March-June 11	.			.	2.89 33,000 8			5.26 60,000 12	.	8.16 93,000 31
22	-8	H13	H13	Nov-Feb 3	2.53 129,000 12			.	.			5.89 300,000 7	.	8.43 429,000 22
17	-19	H14	H14	March-June 1	.			2.96 24,000 9	4.44 36,000 7			.	.	7.41 60,000 17
23	-36	H15	H15	Nov-Feb 4	2.56 96,000 12			2.43 91,000 7	.			.	.	4.99 187,000 23
16	-238	H16	H16	July-Oct 6	.			.	.			4.14 63,000 10	.	4.14 63,000 16
23	-79	H17	H17	March-June 2	.			.94 30,000 3	5.58 178,000 9			7.52 240,000 9	.	14.04 448,000 23

Farm Totals
Available
Surpluses/Deficits (+/-)

C + H Hog Farms, Inc.
HC 72 Box 2
Vendor, AR 72683



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