

Jason Henson
C & H Hog Farms, Inc.
HC 72 Box 10
Mount Judea, AR 72655

December 22, 2013

**Re: Nutrient Management Plan Cool Season Application Rates
AFIN: 51-00164, Permit No.: ARG590001**

Mr. John Bailey
Permits Section Branch Manager
Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Dear Mr. Bailey:

Enclosed are the Nutrient Management Plan cool season application rates for C & H Hog Farms, Inc. These application rates were prepared by a Certified Nutrient Management Planner. When necessary, C & H Hog Farms, Inc. will land apply pursuant to the enclosed calculations during the cool season months.

Please contact me if ADEQ has any concerns or questions regarding the applications rates or plan.

Sincerely,

Jason Henson

Jason Henson
C & H Hog Farms, Inc.

Enclosure

Comments:

Arkansas Nutrient Management Planner with 2009 PI (ver 6/25/2013)

Planner:	Monica Hancock	Date:	12/18/2013
Plan Description:	Jason Henson, C & H Hog Farm		

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.

County Information

Farm county	Newton
R	270
10-Yr EI	110
Kf adjusted for frost?	Yes

Nutrient Source and Description Information

Manure Source	Source Type	Amount Available		N Concentration		P2O5 Concentration		K2O Concentration		Water Extractable P		Alum Used?
		WSP	Liquid Manure	848	1000 gal	12.61	lb/1000 gal	10.06	lb/1000 gal	10.54	lb/1000 gal	

Nutrient Loss and Mineralization Factors

Nutrient Source Description	N		P2O5		K2O	
	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)
WSP		25%				

Estimated Plant Available Nutrients

Nutrient Source Description	N		P2O5		K2O		Water Extractable P					
	Concentration	Total (lb)	Concentration	Total (lb)	Concentration	Total (lb)	Concentration	Total (lb)				
WSP	9.46	lb/1000 gal	8,020	10.06	lb/1000 gal	8,531	10.54	lb/1000 gal	8,938	1.15	lb/1000 gal	975.2
Totals			8,020		8,531			8,938				975

Field P Index Calculations

Fields Shown	Soil Test P		Soil Map Unit	Slope Gradient (%)				Slope Length (ft)				Flooding Frequency
	ppm	lb/ac		Min	Max	Rep	Used	Min	Max	Rep	Used	
7												
JH 3	42	56	48	0	3	2	2	15	75	45	45	Occasional
JH 9	52	69	50	0	3	2	2	15	75	45	45	Occasional
JH Part of 10	69	92	51	2	5	2.5	2.5	15	75	45	45	None
JH Part of 15	15	20	43	8	20	14	14	15	30	20	20	None
JH Part of 17	50	67	1	3	8	5	5	15	75	45	45	None

Field	Field Area (ac)	Buffer Length (ft)	Buffer Width (ft)	Appl Area (ac)	Predominate Vegetation	Percent Ground Cover	Conservation Support Practices (P)	RUSLE 1 (ton/ac)	RUSLE 2 (ton/ac)
JH 3	15.90	1,437	100	12.60	Grass	95-100	None in place	0.05	0.05
JH 9	45.10	4,487	100	34.80	Grass	95-100	None in place	0.05	0.05
JH Part of 10	25.70	523	100	24.50	Grass	95-100	None in place	0.05	0.05
JH Part of 15	42.60	3,615	100	34.30	Grass	95-100	None in place	0.28	0.28
JH Part of 17	52.30	3,703	100	43.80	Grass	95-100	None in place	0.12	0.12
	181.60			150.00					

Field	Pasture Use	Application Method	Application Timing	Nutrient Source	Application Rate	Pre BMP PI Value	P Index Range	Target Post BMPs PI Values
JH 3	Continuously Grazed <0.75 An.Units	Surface Applied	Nov-Feb	WSP	7.00 1000 gal/ac	31	Low	32
JH 9	Continuously Grazed <0.75 An.Units	Surface Applied	Nov-Feb	WSP	6.50 1000 gal/ac	31	Low	32
JH Part of 10	Continuously Grazed <0.75 An.Units	Surface Applied	Nov-Feb	WSP	10.00 1000 gal/ac	30	Low	32
JH Part of 15	Continuously Grazed <0.75 An.Units	Surface Applied	Nov-Feb	WSP	10.00 1000 gal/ac	32	Low	32
JH Part of 17	Continuously Grazed <0.75 An.Units	Surface Applied	Nov-Feb	WSP	7.50 1000 gal/ac	31	Low	32

Best Management Practices

Field	Diversion	Terrace	Pond	Filter Strip	Grassed Waterway	Fencing	Riparian Forest Buffer	Riparian Herbaceous Cover	Field Borders	Post BMP PI Value	P Index Range
JH 3										31	Low
JH 9										31	Low
JH Part of 10										30	Low

Comments:

Arkansas Nutrient Management Planner with 2009 PI (ver 6/25/2013)

Planner:	Monica Hancock	Date:	12/18/2013
Plan Description:	Jason Henson, C & H Hog Farm		
JH Part of 15			32 Low
JH Part of 17			31 Low

Field Nutrient Application Planning

Per Acre Basis

Field	Nutrient Source	Application			Nutrient Recommendation (lb/ac)			Nutrients Applied (lb/ac)			Surpluses / Deficits (lb/ac)		
		PI Max	Planned		N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
JH 3	WSP	7.00	7.00	1000 gal/ac	100	0	80	66	70	74	-34	70	-6
JH 9	WSP	6.50	6.50	1000 gal/ac	100	0	120	61	65	69	-39	65	-51
JH Part of 10	WSP	10.00	10.00	1000 gal/ac	100	0	50	95	101	105	-5	101	55
JH Part of 15	WSP	10.00	10.00	1000 gal/ac	100	100	80	95	101	105	-5	1	25
JH Part of 17	WSP	7.50	7.50	1000 gal/ac	100	0	120	71	75	79	-29	75	-41

Per Field Basis

Field	Nutrient Source	Application			Nutrient Recommendation (lbs)			Nutrients Applied (lbs)			Surpluses / Deficits (lb)			
		PI Max	Planned		N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
JH 3	WSP	88.20	88.20	1000 gal	1,260	0	1,008	834	887	930	-426	887	-78	
JH 9	WSP	226.20	226.20	1000 gal	3,480	0	4,176	2,139	2,276	2,384	-1,341	2,276	-1,792	
JH Part of 10	WSP	244.99	244.99	1000 gal	2,450	0	1,225	2,317	2,465	2,582	-133	2,465	1,357	
JH Part of 15	WSP	343.01	343.01	1000 gal	3,430	3,430	2,744	3,244	3,451	3,615	-186	21	871	
JH Part of 17	WSP	328.49	328.49	1000 gal	4,380	0	5,256	3,107	3,305	3,462	-1,273	3,305	-1,794	
					Totals									
						15,000	3,430	14,409	11,641	12,383	12,974	-3,359	8,953	-1,435

Manure Distribution Summary

Units Applied by Field and Source

Field	WSP (1000 gal)	Source		
JH 3	88.20			
JH 9	226.20			
JH Part of 10	244.99			
JH Part of 15	343.01			
JH Part of 17	328.49			
Total Applied	1,231			
Available	848			
Deficit/Surplus	-383			

From: [Yarberry, Katherine](#)
To: [Deardoff, Amy](#)
Subject: FW: C & H Hog Farms: Cool Season Application Rates
Date: Monday, December 30, 2013 3:27:58 PM
Attachments: [Signed 12-22-13 Letter to ADEQ re Cool Season Application Rates.pdf](#)
[ATT00001..htm](#)
[Jason Henson PI Recalculation.pdf](#)
[ATT00002..htm](#)

Website, please.

ARG590001 AFIN 51-00164

Thanks,

Katherine Yarberry, PE
501-682-0647

From: Bailey, John
Sent: Monday, December 30, 2013 1:46 PM
To: Shafii, Mo; Yarberry, Katherine
Subject: Fwd: C & H Hog Farms: Cool Season Application Rates

The application rates look to be less than the approved NMP, so I don't think this is a modification.

Sent from my iPad

Begin forwarded message:

From: "Bailey, John" <BAILEY@adeq.state.ar.us>
Date: December 23, 2013 at 1:24:56 PM CST
To: "Shafii, Mo" <SHAFII@adeq.state.ar.us>, "Benefield, Ryan" <benefield@adeq.state.ar.us>
Subject: Fwd: C & H Hog Farms: Cool Season Application Rates

Just FYI

Sent from my iPad

Begin forwarded message:

From: Jason Henson <jasonh_1995@yahoo.com>
Date: December 22, 2013 at 3:17:34 PM CST
To: "Bailey, John" <BAILEY@adeq.state.ar.us>
Subject: C & H Hog Farms: Cool Season Application Rates
Reply-To: Jason Henson <jasonh_1995@yahoo.com>

Mr. Bailey,

Please see attachments.

Merry Christmas!

Sincerely,
Jason Henson