ATTACHMENT 4

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:	Nathan A. Pesta, P.E.	Date:	5/25/2012
Plan Description:	Jason Henson: Fields 1-10		

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 Concrentration		Water Extractible P		Alum Used?
WSP#1	Liquid Biosolids	1230	1000 gal	37.60	lb/1000 gal	28.90	lb/1000 gal	29.10	lb/1000 gal	1.90	lb/1000 gal	No
WSP#2	Liquid Manure	1531	1000 gal	30.20	lb/1000 gal	23.20	lb/1000 gal	23.40	lb/1000 gal	0.07	lb/1000 gal	No

Nutrient Loss and Mineralization Factors

Nutrient Source Description	N		P2O5		K2O	
	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)
WSP#1	60%	50%	80%		80%	
WSP#2	60%	50%	80%		80%	

Estimated Plant Available Nutrients

Nutrient Source Description	N			P2O5			K2O			Water Extractible P		
	Concentration		Total (lb)	Concentration		Total (lb)	Concentration		Total (lb)	Concentration		Total (lb)
WSP#1	7.52	lb/1000 gal	9,250	5.78	lb/1000 gal	7,109	5.82	lb/1000 gal	7,159	1.90	lb/1000 gal	2337
WSP#2	6.04	lb/1000 gal	9,247	4.64	lb/1000 gal	7,104	4.68	lb/1000 gal	7,165	0.07	lb/1000 gal	107.17
Totals			18,497			14,213			14,324			2,444

Field P Index Calculations

Field	Soil Test P		Soil Map Unit	Slope Gradient (%)				Slope Length (ft)				Flooding Frequency
	ppm	lb/ac		Min	Max	Rep	Used	Min	Max	Rep	Used	

Comments

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:	Nathan A. Pesta, P.E.								Date	5/25/2012		
Plan Description:	Jason Henson: Fields 1-10											
H1	83	110	42	3	8	5	5.5	15	75	45	45	None
H2	72	96	43	8	20	14	14	15	30	20	45	None
H3	42	56	48	0	3	2	14	15	75	45	23	Occasional
H4	50	67	43	8	20	14	14	15	30	20	23	None
H5	65	86	48	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	5	#N/A
H6	76	101	48	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	4	#N/A
H7	178	237	48	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	4	#N/A
H8	46	61	51	2	5	2.5	3.5	15	75	45	12	None
H9	52	69	50	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	7	#N/A
H10	69	92	51	2	5	2.5	3.5	15	75	45	15	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)
H1	19.70	1,800	100	15.57	Grass	95-100	None in place	0.12	0.18
H2	19.30	1,000	100	17.00	Grass	95-100	None in place	0.34	6.60
H3	15.90	1,000	100	13.60	Grass	95-100	None in place	0.24	0.01
H4	10.40	700	100	8.79	Grass	95-100	None in place	0.28	5.40
H5	24.90	500	100	23.75	Grass	95-100	None in place		0.05
H6	36.60	900	100	34.53	Grass	95-100	None in place		0.05
H7	79.80	2,400	100	74.29	Grass	95-100	None in place		1.10
H8	15.50			15.50	Grass	95-100	None in place	0.06	1.30
H9	45.10	1,680	100	41.24	Grass	95-100	None in place		0.49
H10	34.30	500	100	33.15	Grass	95-100	None in place	0.06	1.30
	302			277					

Field	Pasture Use	Application Method	Application Timing	Nutrient Source	Application Rate		Pre BMP PI Value	P Index Range	Target Post BMPs PI Values
H1	Rotational Grazing	Surface Applied	March-June	WSP#1	25.00	1000 gal/ac	65	Medium	
H2	Rotational Grazing	Surface Applied	March-June	WSP#1	9.90	1000 gal/ac	80	High	
H3	Hayland	Surface Applied	March-June	WSP#1	10.00	1000 gal/ac	47	Medium	
H4	Rotational Grazing	Surface Applied	March-June	WSP#1	9.90	1000 gal/ac	75	High	
H5	Hayland	Surface Applied	March-June	WSP#2	81.00	1000 gal/ac			
H6	Hayland	Surface Applied	March-June	WSP#2	81.00	1000 gal/ac			
H7	Hayland	Surface Applied	March-June	WSP#2	81.00	1000 gal/ac			
H8	Hayland	Surface Applied	March-June	WSP#2	81.00	1000 gal/ac	56	Medium	
H9	Hayland	Surface Applied	March-June	WSP#2	81.00	1000 gal/ac			
H10	Hayland	Surface Applied	March-June	WSP#1	18.00	1000 gal/ac	52	Medium	

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:	Nathan A. Pesta, P.E.	Date:	5/25/2012
Plan Description:	Jason Henson: Fields 1-10		

Best Management Practices

Field	Diversion	Terrace	Pond	Filter Strip	Grassed Waterway	Fencing	Riparian Forest Buffer	Riparian Herbaceous Cover	Field Borderrs	Post BMP PI Value	P Index Range
H1										65	Medium
H2										80	High
H3										47	Medium
H4										75	High
H5											
H6											
H7											
H8										56	Medium
H9											
H10										52	Medium

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
H1	WSP#1	25.00	25.00	1000 gal/ac	489	57	220	188	145	146	-301	88	-75
H2	WSP#1	9.90	9.90	1000 gal/ac	489	57	220	74	57	58	-415	0	-162
H3	WSP#1	10.00	10.00	1000 gal/ac	489	57	220	75	58	58	-414	1	-162
H4	WSP#1	9.90	9.90	1000 gal/ac	489	57	220	74	57	58	-415	0	-162
H5	WSP#2	81.00	81.00	1000 gal/ac	489	57	220	489	376	379	0	319	159
H6	WSP#2	81.00	81.00	1000 gal/ac	489	57	220	489	376	379	0	319	159
H7	WSP#2	81.00	81.00	1000 gal/ac	489	57	220	489	376	379	0	319	159
H8	WSP#2	81.00	81.00	1000 gal/ac	489	57	220	489	376	379	0	319	159
H9	WSP#2	81.00	81.00	1000 gal/ac	489	57	220	489	376	379	0	319	159
H10	WSP#1	18.00	18.00	1000 gal/ac	489	57	220	135	104	105	-354	47	-115

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
H1	WSP#1	389.19	389.19	1000 gal	7,613	887	3,425	2,927	2,250	2,265	-4,686	1,362	-1,160
H2	WSP#1	168.34	168.34	1000 gal	8,315	969	3,741	1,266	973	980	-7,049	4	-2,761
H3	WSP#1	136.04	136.04	1000 gal	6,653	775	2,993	1,023	786	792	-5,629	11	-2,201
H4	WSP#1	87.05	87.05	1000 gal	4,300	501	1,934	655	503	507	-3,645	2	-1,428
H5	WSP#2	1923.92	1923.92	1000 gal	11,615	1,354	5,225	11,621	8,927	9,004	6	7,573	3,778
H6	WSP#2	2797.24	2797.24	1000 gal	16,887	1,968	7,597	16,895	12,979	13,091	8	11,011	5,494
H7	WSP#2	6017.52	6017.52	1000 gal	36,328	4,235	16,344	36,346	27,921	28,162	18	23,687	11,818
H8	WSP#2	1255.50	1255.50	1000 gal	7,580	884	3,410	7,583	5,826	5,876	4	4,942	2,466
H9	WSP#2	3340.70	3340.70	1000 gal	20,168	2,351	9,074	20,178	15,501	15,634	10	13,150	6,561
H10	WSP#1	596.74	596.74	1000 gal	16,211	1,890	7,293	4,487	3,449	3,473	-11,724	1,559	-3,820
				Totals	135,669	15,814	61,037	102,981	79,115	79,784	-32,688	63,301	18,747

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:	Nathan A. Pesta, P.E.	Date:	5/25/2012
Plan Description:	Jason Henson: Fields 1-10		

Manure Distribution Summary

Units Applied by Field and Source

Field	Source				
	WSP#1 (1000 gal)	WSP#2 (1000 gal)			
H1	389.19				
H2	168.34				
H3	136.04				
H4	87.05				
H5		1,923.92			
H6		2,797.24			
H7		6,017.52			
H8		1,255.50			
H9		3,340.70			
H10	596.74				
Total Applied	1,377	15335			
Available	1,230	1531			
Deficit/Surplus	-147	-13804			

Supplemental Documentation of Inputs and Results for P Index and RUSLE Calculations

Field	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
Soil Map Unit	42	43	48	43	48	48	48	51	50	51
Soil Name	Noark very c	Noark very c	Razort loam,	Noark very c	Soil Name C	Soil Name C	Soil Name C	Spadra loam	Soil Name C	Spadra loam
Primary Litter Source	WSP#1	WSP#1	WSP#1	WSP#1	WSP#2	WSP#2	WSP#2	WSP#2	WSP#2	WSP#1
Source Type	Liquid Biosol	Liquid Biosol	Liquid Biosol	Liquid Biosol	Liquid Manur	Liquid Manur	Liquid Manur	Liquid Manur	Liquid Manur	Liquid Biosol
WEP (lb/ton)	1.9	1.9	1.9	1.9	0.07	0.07	0.07	0.07	0.07	1.9
TP Used (lb/ton)	12.6200873	12.6200873	12.6200873	12.6200873	10.1310044	10.1310044	10.1310044	10.1310044	10.1310044	12.6200873
Litter Appl. Rate (tons/acre)	25	9.9	10	9.9	81	81	81	81	81	18
WEP rate (lb/ac)	47.5	18.81	19	18.81	5.67	5.67	5.67	5.67	5.67	34.2
TP rate (lb/ac)	315.502183	124.938865	126.200873	124.938865	820.611354	820.611354	820.611354	820.611354	820.611354	227.161572
Alum Used	No	No	No	No	No	No	No	No	No	No
Mineralization Coef	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
WEP coef	0.029	0.029	0.029	0.029	0.031	0.031	0.031	0.031	0.031	0.029
WEP Source Value	1.76610317	0.69937685	0.70644127	0.69937685	1.4389291	1.4389291	1.4389291	1.4389291	1.4389291	1.27159428
Soil Test P	110.39	95.76	55.86	66.5	86.45	101.08	236.74	61.18	69.16	91.77
Soil coef	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018
Soil P Source Value	0.198702	0.172368	0.100548	0.1197	0.15561	0.181944	0.426132	0.110124	0.124488	0.165186
Total P Source Value	1.96480517	0.87174485	0.80698927	0.81907685	1.5945391	1.6208731	1.8650611	1.5490531	1.5634171	1.43678028
R factor	270	270	270	270	270	270	270	270	270	270
Kf	0.43	0.43	0.37	0.43				0.37		0.37
Adj Kf For Freezing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kf Used	0.35	0.35	0.3	0.35				0.3		0.3
Slope Gradient (%)	5.5	14	14	14	0.2	0.2	0.2	3.5	0.2	3.5
Slope Length (ft)	45	45	23	23	5	4	4	12	7	15

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:	Nathan A. Pesta, P.E.							Date	5/25/2012	
Plan Description:	Jason Henson: Fields 1-10									

Rusle LS	0.44	1.2	0.98	0.98	0.05	0.05	0.05	0.26	0.05	0.26
Vegetal Canopy: Type	Grass	Grass	Grass	Grass	Grass	Grass	Grass	Grass	Grass	Grass
Percent of Ground Coverd	95-100	95-100	95-100	95-100	95-100	95-100	95-100	95-100	95-100	95-100
C Factor	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Cons. Support Practices (P)	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac
Calc. P Factor?	No	No	No	No	No	No	No	No	No	No
Soil Hydrologic Group	B	B	B	B				B		B
EI	110	110	110	110	110	110	110	110	110	110
P Factor	1	1	1	1	1	1	1	1	1	1
RUSLE 1 (ton/ac)	0.12474	0.3402	0.23814	0.27783				0.06318		0.06318
RUSLE 2 (ton/ac)	0.18	6.6	0.0061	5.4	0.05	0.05	1.1	1.3	0.49	1.3
RUSLE ? Used (ton/ac)	0.18	6.6	0.0061	5.4	0.05	0.05	1.1	1.3	0.49	1.3
Soil Erosion LRV	0	1	0	1	0	0	0.1	0.1	0	0.1
Pasture Use	Rotational G	Rotational G	Hayland	Rotational G	Hayland	Hayland	Hayland	Hayland	Hayland	Hayland
Runoff Curve Numbers	61	61	58	61				58		58
Soil Runoff Class	VL	L	N	L				N		N
Soil Runoff Class LRV	0.15	0.2	0.1	0.2				0.1		0.1
Flooding Frequency	None	None	Occasional	None	#N/A	#N/A	#N/A	None	#N/A	None
Flooding Frequency LRV	0	0	0.5	0				0		0
Application Method	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl
Application Method LRV	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Application Timing	March-June	March-June	March-June	March-June	March-June	March-June	March-June	March-June	March-June	March-June
Application Timing LRV	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Total P Transport Value	0.6	1.65	1.05	1.65				0.65		0.65
Calc PI	0	0	0	0	9	9	9	0	9	0
Pre BMP PI Value	65	80	47	75				56		52
PI Range	Medium	High	Medium	High				Medium		Medium
Diversion %	0	0	0	0	0	0	0	0	0	0
Terrace %	0	0	0	0	0	0	0	0	0	0
Pond %	0	0	0	0	0	0	0	0	0	0
Filter Strip %	0	0	0	0	0	0	0	0	0	0
Grassed WaterWay %	0	0	0	0	0	0	0	0	0	0
Fencing %	0	0	0	0	0	0	0	0	0	0
Riparioan Forst Buffer %	0	0	0	0	0	0	0	0	0	0
Riparian Herbaceous Buffer %	0	0	0	0	0	0	0	0	0	0
Field Borderrs %	0	0	0	0	0	0	0	0	0	0
Total SMV	1	1	1	1	1	1	1	1	1	1
Post BMP PI Value	65	80	47	75				56		52
PI Range	Medium	High	Medium	High				Medium		Medium

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:		Date:	5/25/2012
Plan Description:	C&H Hog Farms: Fields 11-17		

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 Concrentration		Water Extractible P		Alum Used?
WSP#1	Liquid Biosolids	1230	1000 gal	37.60	lb/1000 gal	28.90	lb/1000 gal	29.10	lb/1000 gal	1.90	lb/1000 gal	No
WSP#2	Liquid Manure	1531	1000 gal	30.20	lb/1000 gal	23.20	lb/1000 gal	23.40	lb/1000 gal	0.70	lb/1000 gal	No

Nutrient Loss and Mineralization Factors

Nutrient Source Description	N		P2O5		K2O	
	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)	Storage Losses (%)	Appl. Losses (%)
WSP#1	60%	50%	80%		80%	
WSP#2	60%	50%	80%		80%	

Estimated Plant Available Nutrients

Nutrient Source Description	N			P2O5			K2O			Water Extractible P		
	Concentration		Total (lb)	Concentration		Total (lb)	Concentration		Total (lb)	Concentration		Total (lb)
WSP#1	7.52	lb/1000 gal	9,250	5.78	lb/1000 gal	7,109	5.82	lb/1000 gal	7,159	1.90	lb/1000 gal	2337
WSP#2	6.04	lb/1000 gal	9,247	4.64	lb/1000 gal	7,104	4.68	lb/1000 gal	7,165	0.70	lb/1000 gal	1071.7
Totals			18,497			14,213			14,324			3,409

Field P Index Calculations

	Soil Test P	Soil Map	Slope Gradient (%)	Slope Length (ft)	Flooding

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner												
Plan Description	C&H Hog Farms: Fields 11-17								Date: 5/25/2012			
Field	ppm	lb/ac	Soil Map Unit	Min	Max	Rep	Used	Min	Max	Rep	Used	Flooding Frequency
H11	57	76	43	8	20	14	14	15	30	20	20	None
H12	19	25	50	0	3	2	2	15	75	45	45	Occasional
H13	48	64	43	8	20	14	14	15	30	20	20	None
H14	52	69	43	8	20	14	14	15	30	20	20	None
H15	15	20	43	8	20	14	14	15	30	20	20	None
H16	48	64	50	0	3	2	2	15	75	45	45	Occasional
H17	50	67	1	3	8	5	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)
H11	20.70			20.70	Grass	95-100	None in place	0.28	5.20
H12	28.70	2,200	100	23.65	Grass	95-100	None in place	0.05	0.91
H13	66.90	2,300	100	61.62	Grass	95-100	None in place	0.28	5.20
H14	18.00			18.00	Grass	95-100	None in place	0.28	5.20
H15	66.30	2,300	100	61.02	Grass	95-100	None in place	0.28	5.20
H16	79.60			79.60	Grass	95-100	None in place	0.05	0.91
H17	88.70			88.70	Grass	95-100	None in place	0.12	1.10
	369			353					

Field	Pasture Use	Application Method	Application Timing	Nutrient Source	Application Rate		Pre BMP PI Value	P Index Range	Target Post BMPs PI Values
H11	Hayland	Surface Applied	March-June	WSP#1	9.90	1000 gal/ac	72	High	
H12	Hayland	Surface Applied	March-June	WSP#1	15.00	1000 gal/ac	64	Medium	
H13	Hayland	Surface Applied	March-June	WSP#1	9.90	1000 gal/ac	70	High	
H14	Hayland	Surface Applied	March-June	WSP#1	9.90	1000 gal/ac	71	High	
H15	Hayland	Surface Applied	March-June	WSP#1	9.90	1000 gal/ac	63	Medium	
H16	Hayland	Surface Applied	March-June	WSP#1	14.00	1000 gal/ac	64	Medium	
H17	Hayland	Surface Applied	March-June	WSP#1	18.00	1000 gal/ac	58	Medium	

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner		Date	5/25/2012
Plan Description	C&H Hog Farms: Fields 11-17		

Best Management Practices

Field	Diversion	Terrace	Pond	Filter Strip	Grassed Waterway	Fencing	Riparian Forest Buffer	Riparian Herbaceous Cover	Field Borderrs	Post BMP PI Value	P Index Range
H11										72	High
H12										64	Medium
H13										70	High
H14										71	High
H15										63	Medium
H16										64	Medium
H17										58	Medium

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
H11	WSP#1	9.90	9.90	1000 gal/ac	489	57	220	74	57	58	-415	0	-162
H12	WSP#1	15.00	15.00	1000 gal/ac	489	57	220	113	87	87	-376	30	-133
H13	WSP#1	9.90	9.90	1000 gal/ac	489	57	220	74	57	58	-415	0	-162
H14	WSP#1	9.90	9.90	1000 gal/ac	489	57	220	74	57	58	-415	0	-162
H15	WSP#1	9.90	9.90	1000 gal/ac	489	57	220	74	57	58	-415	0	-162
H16	WSP#1	14.00	14.00	1000 gal/ac	489	57	220	105	81	81	-384	24	-139
H17	WSP#1	18.00	18.00	1000 gal/ac	489	57	220	135	104	105	-354	47	-115

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
H11	WSP#1	204.93	204.93	1000 gal	10,122	1,180	4,554	1,541	1,184	1,193	-8,581	5	-3,361
H12	WSP#1	354.74	354.74	1000 gal	11,565	1,348	5,203	2,668	2,050	2,065	-8,897	702	-3,138
H13	WSP#1	610.04	610.04	1000 gal	30,132	3,512	13,556	4,587	3,526	3,550	-25,545	14	-10,006
H14	WSP#1	178.20	178.20	1000 gal	8,802	1,026	3,960	1,340	1,030	1,037	-7,462	4	-2,923
H15	WSP#1	604.10	604.10	1000 gal	29,839	3,478	13,424	4,543	3,492	3,516	-25,296	14	-9,909
H16	WSP#1	1114.40	1114.40	1000 gal	38,924	4,537	17,512	8,380	6,441	6,486	-30,544	1,904	-11,026
H17	WSP#1	1596.60	1596.60	1000 gal	43,374	5,056	19,514	12,006	9,228	9,292	-31,368	4,172	-10,222

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:					Date: 5/25/2012				
Plan Description	C&H Hog Farms. Fields 11-17								
Totals	172,758	20,137	77,724	35,066	26,952	27,139	-137,693	6,815	-50,585

Comments

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner		Date	5/25/2012
Plan Description	C&H Hog Farms: Fields 11-17		

Manure Distribution Summary

Units Applied by Field and Source

Field	Source				
	WSP#1 (1000 gal)	WSP#2 (1000 gal)			
H11	204.93				
H12	354.74				
H13	610.04				
H14	178.20				
H15	604.10				
H16	1,114.40				
H17	1,596.60				
Total Applied	4,663				
Available	1,230	1531			
Deficit/Surplus	-3,433				

Supplemental Documentation of Inputs and Results for P Index and RUSLE Calculations

Field	H11	H12	H13	H14	H15	H16	H17			
Soil Map Unit	43	50	43	43	43	50	1			
Soil Name	Noark very c	Spadra loam	Noark very c	Noark very c	Noark very c	Spadra loam	Arkana very			
Primary Litter Source	WSP#1	WSP#1	WSP#1	WSP#1	WSP#1	WSP#1	WSP#1			
Source Type	Liquid Biosol	Liquid Biosol	Liquid Biosol	Liquid Biosol	Liquid Biosol	Liquid Biosol	Liquid Biosol			
WEP (lb/ton)	1.9	1.9	1.9	1.9	1.9	1.9	1.9			
TP Used (lb/ton)	12.6200873	12.6200873	12.6200873	12.6200873	12.6200873	12.6200873	12.6200873			
Litter Appl. Rate (tons/acre)	9.9	15	9.9	9.9	9.9	14	18			
WEP rate (lb/ac)	18.81	28.5	18.81	18.81	18.81	26.6	34.2			
TP rate (lb/ac)	124.938865	189.30131	124.938865	124.938865	124.938865	176.681223	227.161572			
Alum Used	No	No	No	No	No	No	No			
Mineralization Coef	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
WEP coef	0.029	0.029	0.029	0.029	0.029	0.029	0.029			
WEP Source Value	0.69937685	1.0596619	0.69937685	0.69937685	0.69937685	0.98901777	1.27159428			
Soil Test P	75.81	25.27	63.84	69.16	19.95	63.84	66.5			
Soil coef	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018			
Soil P Source Value	0.136458	0.045486	0.114912	0.124488	0.03591	0.114912	0.1197			
Total P Source Value	0.83583485	1.1051479	0.81428885	0.82386485	0.73528685	1.10392977	1.39129428			
R factor	270	270	270	270	270	270	270			
Kf	0.43	0.37	0.43	0.43	0.43	0.37	0.43			
Adj Kf For Freezing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Kf Used	0.35	0.3	0.35	0.35	0.35	0.3	0.35			

Comments:

Arkansas Nutrient Managemnt Planner with 2009 PI (ver 3/3/2010)

Planner:						Date:	5/25/2012			
Plan Description	C&H Hog Farms. Fields 11-17									
Slope Gradient (%)	14	2	14	14	14	2	5.5			
Slope Length (ft)	20	45	20	20	20	45	45			
Rusle LS	0.98	0.21	0.98	0.98	0.98	0.21	0.44			
Vegetal Canopy Type	Grass	Grass	Grass	Grass	Grass	Grass	Grass			
Percent of Ground Coverd	95-100	95-100	95-100	95-100	95-100	95-100	95-100			
C Factor	0.003	0.003	0.003	0.003	0.003	0.003	0.003			
Cons. Support Practices (P)	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac	None in plac			
Calc. P Factor?	No	No	No	No	No	No	No			
Soil Hydrologic Group	B	B	B	B	B	B	C			
EI	110	110	110	110	110	110	110			
P Factor	1	1	1	1	1	1	1			
RUSLE 1 (ton/ac)	0.27783	0.05103	0.27783	0.27783	0.27783	0.05103	0.12474			
RUSLE 2 (ton/ac)	5.2	0.91	5.2	5.2	5.2	0.91	1.1			
RUSLE ? Used (ton/ac)	5.2	0.91	5.2	5.2	5.2	0.91	1.1			
Soil Erosion LRV	1	0	1	1	1	0	0.1			
Pasture Use	Hayland	Hayland	Hayland	Hayland	Hayland	Hayland	Hayland			
Runoff Curve Numbers	58	58	58	58	58	58	71			
Soil Runoff Class	N	N	N	N	N	N	L			
Soil Runoff Class LRV	0.1	0.1	0.1	0.1	0.1	0.1	0.2			
Flooding Frequency	None	Occasional	None	None	None	Occasional	None			
Flooding Frequency LRV	0	0.5	0	0	0	0.5	0			
Application Method	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl	Surface Appl			
Application Method LRV	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
Application Timing	March-June	March-June	March-June	March-June	March-June	March-June	March-June			
Application Timing LRV	0.25	0.25	0.25	0.25	0.25	0.25	0.25			
Total P Transport Value	1.55	1.05	1.55	1.55	1.55	1.05	0.75			
Calc PI	0	0	0	0	0	0	0			
Pre BMP PI Value	72	64	70	71	63	64	58			
PI Range	High	Medium	High	High	Medium	Medium	Medium			
Diversion %	0	0	0	0	0	0	0			
Terrace %	0	0	0	0	0	0	0			
Pond %	0	0	0	0	0	0	0			
Filter Strip %	0	0	0	0	0	0	0			
Grassed WaterWay %	0	0	0	0	0	0	0			
Fencing %	0	0	0	0	0	0	0			
Riparioan Forst Buffer %	0	0	0	0	0	0	0			
Riparian Herbaceous Buffer %	0	0	0	0	0	0	0			
Field Borderrs %	0	0	0	0	0	0	0			
Total SMV	1	1	1	1	1	1	1			
Post BMP PI Value	72	64	70	71	63	64	58			
PI Range	High	Medium	High	High	Medium	Medium	Medium			