

**Bob Mondt
Recommended Application Rates**

Crop	Yield	Crop Rotation	Application		N rate		E rate	
			Method	Manure Source	gal/acre OR Tons/Acre	gal/acre OR Tons/Acre	gal/acre OR Tons/Acre	gal/acre OR Tons/Acre
Corn	110	Following Corn	Broadcast	Solid Dairy	27.8 Ton/Acre	15.7 Ton/Acre	15.7 Ton/Acre	15.7 Ton/Acre
Corn	110	Following Soybeans	Broadcast	Solid Dairy	19.4 Ton/Acre	15.7 Ton/Acre	15.7 Ton/Acre	15.7 Ton/Acre
Corn Silage	23	Following Corn	Broadcast	Solid Dairy	27.8 Ton/Acre	20.3 Ton/Acre	20.3 Ton/Acre	20.3 Ton/Acre
Soybeans	40	Following Corn	Broadcast	Solid Dairy	--	11.3 Ton/Acre	11.3 Ton/Acre	11.3 Ton/Acre
Wheat	50	Following Corn	Broadcast	Solid Dairy	10.5 Ton/Acre	15.0 Ton/Acre	15.0 Ton/Acre	15.0 Ton/Acre
Wheat Chop	3	Following Corn	Broadcast	Solid Dairy	7.4 Ton/Acre	7.7 Ton/Acre	7.7 Ton/Acre	7.7 Ton/Acre
Alfalfa Hay	4.5	Continuous Hay	Broadcast	Solid Dairy	--	18.0 Ton/Acre	18.0 Ton/Acre	18.0 Ton/Acre
Corn	110	Following Corn	Broadcast	Liquid Dairy	57,400 Gall/Acre	15,770 Gall/Acre	15,770 Gall/Acre	15,770 Gall/Acre
Corn	110	Following Soybeans	Broadcast	Liquid Dairy	40,000 Gall/Acre	15,770 Gall/Acre	15,770 Gall/Acre	15,770 Gall/Acre
Corn Silage	23	Following Corn	Broadcast	Liquid Dairy	57,400 Gall/Acre	20,300 Gall/Acre	20,300 Gall/Acre	20,300 Gall/Acre
Soybeans	40	Following Corn	Broadcast	Liquid Dairy	--	11,300 Gall/Acre	11,300 Gall/Acre	11,300 Gall/Acre
Wheat	50	Following Corn	Broadcast	Liquid Dairy	21,700 Gall/Acre	15,000 Gall/Acre	15,000 Gall/Acre	15,000 Gall/Acre
Wheat Chop	3	Following Corn	Broadcast	Liquid Dairy	15,200 Gall/Acre	7,670 Gall/Acre	7,670 Gall/Acre	7,670 Gall/Acre
Alfalfa Hay	4.5	Continuous Hay	Broadcast	Liquid Dairy	--	18,000 Gall/Acre	18,000 Gall/Acre	18,000 Gall/Acre

These recommended rates are based on the stated yields and crops, and assumes fields have NO recent manure applications (no N credits from manure application). These are estimates only, and can be used as guides when climate or other factors exist that require deviations from planned manure applications. Previous applications would require that these application rates be decreased from present estimates.

Also, these recommendations are based on ESTIMATED manure analysis. ACTUAL facility analysis is needed to determine real nutrient loading rates. However, until those numbers are available, these estimates can serve as guidelines.

$$N \text{ available 1st year} = (Am-N * App \text{ Method Efficiency}) + (OrgN * .35)$$

Previous manure applications should be given N credits =

$$(App \text{ rate (in 1,000 gal)} * Org \text{ N (per 1,000 gal)} * Mineralization \text{ Factor}) / 2$$

Mineralization Factors: Year 1 = .35, Year 2 = .175, Year 3 = .0875, Year 4 = 0.04

Efficiency of Application = Liquid, Broadcast = 0.80, Solid, Broadcast = 0.75, Airway = 0.90, Liquid Inject = 0.98

Summary of Manure Applications

Applications are entered for the crop year (i.e. 2008 applications are applied in Fall 2007 - Spring 2008 for 2008 crop)

FSA Tract #	Field Name	Acres Available for Application	Year	Crop	Planned Manure (1000 gal)	Planned Manure (total gal)	Manure Source	Planned N Applied lbs/ac	Planned P Applied lbs/ac	Planned K Applied lbs/ac	Commercial N Needed (lbs/ac)
4381	Home Farm A	5.3	2007	Wheat chop/ Corn silage							
			2008	Wheat chop/ Corn silage	28.0	148	Solid Dairy	133	133	84	12
1034			2009	Wheat chop/ Corn silage	28.0	148	Solid Dairy	133	84	168	-1
			2010	Wheat chop/ Corn silage	28.0	148	Solid Dairy	133	84	168	-8
183			2011	Wheat chop/ Corn silage	28.0	148	Solid Dairy	133	84	168	-12
			2012	Wheat chop/ Corn silage	28.0	148	Solid Dairy	133	84	168	-12
4381	Home Farm B	1.9	2007	Corn Silage							
			2008	Corn Silage	20.3	39	Solid Dairy	97	61	121	18
1034			2009	Corn Silage	20.3	39	Solid Dairy	97	61	122	9
			2010	Corn Silage	20.3	39	Solid Dairy	97	61	122	4
2			2011	Corn Silage	20.3	39	Solid Dairy	97	61	122	2
			2012	Corn Silage	20.3	39	Solid Dairy	97	61	122	2
4381	Home Farm C	4.7	2007	Corn Silage							
			2008	Corn Silage	20.3	96	Solid Dairy	97	97	61	18
1034			2009	Corn Silage	20.3	96	Solid Dairy	97	61	122	9
			2010	Corn Silage	20.3	96	Solid Dairy	97	61	122	4
4			2011	Corn Silage	20.3	96	Solid Dairy	97	61	122	2
			2012	Corn Silage	20.3	96	Solid Dairy	97	61	122	2
4381	Home Farm D	0.5	2007	Corn Silage							
			2008	Corn Silage	20.3	10	Solid Dairy	97	97	61	18
1034			2009	Corn Silage	20.3	10	Solid Dairy	97	61	122	9
			2010	Corn Silage	20.3	10	Solid Dairy	97	61	122	4
5			2011	Corn Silage	20.3	10	Solid Dairy	97	61	122	2
			2012	Corn Silage	20.3	10	Solid Dairy	97	61	122	2

Summary of Manure Applications continued

Applications are entered for the crop year (i.e. 2008 applications are applied in Fall 2007 - Spring 2008 for 2008 crop)

FSA Tract #	Field Name	Acres Available for Application	Year	Crop	Planned Manure (1000 gal)	Planned Manure (total gal)	Manure Source	Planned N Applied lbs/ac	Planned P Applied lbs/ac	Planned K Applied lbs/ac	Commercial N Needed (lbs/ac)
4381	Home Farm E	12.8	2007	Wheat chop/ Corn silage							
			2008	Wheat chop/ Corn silage	28.0	358	Solid Dairy	133	133	84	12
1034			2009	Wheat chop/ Corn silage	28.0	358	Solid Dairy	133	84	168	-1
			2010	Wheat chop/ Corn silage	28.0	358	Solid Dairy	133	84	168	-8
			2011	Wheat chop/ Corn silage	28.0	358	Solid Dairy	133	84	168	-12
7			2012	Wheat chop/ Corn silage	28.0	358	Solid Dairy	133	84	168	-12
4381	Home Farm F	0.4	2007	Grass							
			2008	Grass	0.0	0	Solid Dairy	0	0	0	132
1034			2009	Grass	0.0	0	Solid Dairy	0	0	0	132
			2010	Grass	0.0	0	Solid Dairy	0	0	0	132
			2011	Grass	0.0	0	Solid Dairy	0	0	0	132
6			2012	Grass	0.0	0	Solid Dairy	0	0	0	132
4381	Home Farm G	13.5	2007	Wheat chop/ Corn silage							
			2008	Wheat chop/ Corn silage	28.0	378	Solid Dairy	133	133	84	17
1034			2009	Wheat chop/ Corn silage	28.0	378	Solid Dairy	133	84	168	1
			2010	Wheat chop/ Corn silage	28.0	378	Solid Dairy	133	84	168	-7
			2011	Wheat chop/ Corn silage	28.0	378	Solid Dairy	133	84	168	-11
7			2012	Wheat chop/ Corn silage	28.0	378	Solid Dairy	133	84	168	-12
4381	Home Farm H	26.4	2007	Corn Silage							
			2008	Corn Silage	20.3	537	Solid Dairy	97	97	61	18
1034			2009	Corn Silage	20.3	537	Solid Dairy	97	61	122	9
			2010	Corn Silage	20.3	537	Solid Dairy	97	61	122	4
			2011	Corn Silage	20.3	537	Solid Dairy	97	61	122	2
8			2012	Corn Silage	20.3	537	Solid Dairy	97	61	122	2

Summary of Manure Applications continued

Applications are entered for the crop year (i.e. 2008 applications are applied in Fall 2007 - Spring 2008 for 2008 crop)

FSA Tract #	Field Name	Acres Available for Application	Year	Crop	Planned Manure (1000 gal)	Planned Manure (total gal)	Manure Source	Planned N Applied lbs/ac	Planned P Applied lbs/ac	Planned K Applied lbs/ac	Commercial N Needed (lbs/ac)
4904	Kohrs East	23.2	2007	Alfalfa							
			2008	Alfalfa	0.0						0
4610			2009	Alfalfa	0.0						0
			2010	Alfalfa	0.0						0
2			2011	Alfalfa	0.0						0
			2012	Alfalfa	18.0	417,600	Liquid Dairy	41	54	72	-41
4904	Kohrs West	20.5	2007	Corn Silage							
			2008	Corn Silage	0.0						
4610			2009	Corn Silage	57.4	1,635,652	Liquid Dairy	132	172	230	132
			2010	Corn Silage	48.7	637,950	Liquid Dairy	112	146	195	0
1			2011	Corn Silage	0.0						0
			2012	Corn Silage	51.5	1,327,821	Liquid Dairy	118	155	206	105
3793	Korkenmer	32.7	2007	Beans							
			2008	Corn	0.0						
4040			2009	Wheat	0.0						92
			2010	Beans	0.0						50
283			2011	Corn	40.0	1,308,000	Liquid Dairy	92	120	160	0
			2012	Wheat	0.0						36
4381	Knipman A	8.8	2007	Corn							
			2008	Alfalfa	0.0						0
3874			2009	Alfalfa	0.0						0
			2010	Alfalfa	0.0						0
7			2011	Corn	57.4	505,043	Liquid Dairy	132	172	230	0
			2012	Alfalfa	0.0						-20

Summary of Manure Applications continued

Applications are entered for the crop year (i.e. 2008 applications are applied in Fall 2007 - Spring 2008 for 2008 crop)

FSA Tract #	Field Name	Acres Available for Application	Year	Crop	Planned Manure (1000 gal)	Planned Manure (total gal)	Manure Source	Planned N Applied lbs/ac	Planned P Applied lbs/ac	Planned K Applied lbs/ac	Commercial N Needed (lbs/ac)
4381	Kniepman B	14.3	2007	Alfalfa							
			2008	Alfalfa	0.0						0
3874			2009	Alfalfa	0.0						0
			2010	Alfalfa	0.0						0
7			2011	Alfalfa	0.0						0
			2012	Corn	57.4	820,696	Liquid Dairy	132	172	230	0
4381	Kniepman C	19.9	2007	Corn Silage							
			2008	Alfalfa	0.0						0
3874			2009	Alfalfa	0.0						0
			2010	Alfalfa	0.0						0
7			2011	Corn Silage	57.4	1,142,087	Liquid Dairy	132	172	230	0
			2012	Alfalfa	0.0						-20
4381	Kniepman D	46.1	2007	Corn							
			2008	Corn	0.0						132
3874			2009	Corn	57.4	1,345,739	Liquid Dairy	132	172	230	0
			2010	Corn	48.7	2,243,127	Liquid Dairy	112	146	195	0
6, 7, 8			2011	Corn	0.0						105
			2012	Corn	0.0						118
3159	Lampe A	59.6	2007	Corn							
			2008	Beans	0.0						0
1072			2009	Corn	15.8	939,693	Liquid Dairy	36	47	63	56
			2010	Beans	0.0						-6
1			2011	Corn	15.8	939,693	Liquid Dairy	36	47	63	53
			2012	Beans	0.0						-7

Summary of Manure Applications continued

Applications are entered for the crop year (i.e. 2008 applications are applied in Fall 2007 - Spring 2008 for 2008 crop)

FSA Tract #	Field Name	Acres Available for Application	Year	Crop	Planned Manure (1000 gal)	Planned Manure (total gal)	Manure Source	Planned N Applied lbs/ac	Planned P Applied lbs/ac	Planned K Applied lbs/ac	Commercial N Needed (lbs/ac)
3159	Lampe B	13.8	2007	Corn							
			2008	Beans	0.0						0
990			2009	Corn	15.8	217,580	Liquid Dairy	36	47	63	56
			2010	Beans	0.0						-6
1			2011	Corn	15.8	217,580	Liquid Dairy	36	47	63	53
			2012	Beans	0.0						-7
3195	Lampe C	21.7	2007	Beans							
			2008	Corn	15.8	342,137	Liquid Dairy	36	36	47	56
990			2009	Beans	0.0						-6
			2010	Corn	15.8	342,137	Liquid Dairy	36	47	63	53
2			2011	Beans	0.0						-7
			2012	Corn	15.8	342,137	Liquid Dairy	36	47	63	52
3160	Lampe D	22.5	2007	Beans							
			2008	Corn	15.8	354,750	Liquid Dairy	36	36	47	56
3686			2009	Beans	0.0						-6
			2010	Corn	0.0						89
3			2011	Beans	0.0						-1
			2012	Corn	15.8	354,750	Liquid Dairy	36	47	63	55
3160	Lampe E	4.1	2007	Beans							
			2008	Corn	15.8	64,643	Liquid Dairy	36	36	47	56
3686			2009	Beans	0.0						-6
			2010	Corn	15.8	64,643	Liquid Dairy	36	47	63	53
1			2011	Beans	0.0						-7
			2012	Corn	15.8	64,643	Liquid Dairy	36	47	63	52

Summary of Manure Applications continued

Applications are entered for the crop year (i.e. 2008 applications are applied in Fall 2007 - Spring 2008 for 2008 crop)

FSA Tract #	Field Name	Acres Available for Application	Year	Crop	Planned Manure ('000 gal)	Planned Manure (total gal)	Manure Source	Planned N Applied lbs/ac	Planned P Applied lbs/ac	Planned K Applied lbs/ac	Commercial N Needed (lbs/ac)
2761			2007	Alfalfa							
			2008	Alfalfa	0.0						0
3499	Hay Field	52.2	2009	Alfalfa	0.0						0
			2010	Alfalfa	18.0	939,600	Liquid Dairy	41	54	72	-41
2			2011	Alfalfa	0.0						-6
			2012	Alfalfa	18.0	939,600	Liquid Dairy	41	54	72	-45

Running Totals of Manure Production**Bob Mondt**

		Total Produced gallons	Year End Total Produced gallons	Total Applied gallons	Year End Totals gallons
CROP YEAR					
2009	Liquid Dairy	4,342,539	4,342,539	4,138,665	203,874
2010	Liquid Dairy	4,342,539	4,546,413	4,227,457	318,957
2011	Liquid Dairy	4,342,539	4,661,496	4,112,404	549,092
2012	Liquid Dairy	4,342,539	4,891,631	4,267,247	624,384

		Total Produced gallons	Year End Total Produced gallons	Total Applied gallons	Year End Totals gallons
CROP YEAR					
2009	Solid Dairy	1,578	1,578	1,566	12
2010	Solid Dairy	1,578	1,590	1,566	24
2011	Solid Dairy	1,578	1,602	1,566	36
2012	Solid Dairy	1,578	1,614	1,566	48

References

Bob Mondt

Manure Sample Analysis	(#/1000 gal or #/ton basis)			
	N	NH4	OrgN	
Liquid Dairy	4	2	2	1st Year AvN
Solid Dairy	9	4	5	2.3
				4.75
				P2O5
				3
				3
				K2O
				4
				6

Application Method N retention

% N retention, from MWPS

SURFACE, SOLID	0.75
SURFACE, LIQUID	0.8
AERWAY	0.9
SURFACE, INCORP	0.95
INJECT	0.98
IRRIGATE	0.7
NONE	0

Organic N Mineralization

Year of App	% of OrgN	LMFA Regulations
Year 1 after App	0.35	
Year 2 after App	0.35	
Year 3 after App	0.175	
Year 4 after App	0.0875	
	0.04375	

N, P, & K Requirements

lbs/bu or t, from IL Agronomy Handbook

Crop	N	P	K
Corn	1.2	0.43	0.28
Soybeans	0	0.85	1.3
Corn Silage	1.2	2.6	7
Wheat	1	0.9	0.3
Grass Hay	150	12	50
Alfalfa Hay	0	12	50

Projected Soil P & K Levels
Bob Mondt

Field Name	Acres	Current Soil Test		Change in Test		Projected Soil Test		Time to Reach 300 lbs/ac
		P	K	P	K	P	K	
Home Farm A	5.3	522	970	0	-55	522	915	0
Home Farm B	1.9	716	1164	0	-39	716	1125	0
Home Farm C	4.7	232	516	0	-39	232	477	0
Home Farm D	0.5	312	590	0	-39	312	551	0
Home Farm E	12.8	470	876	0	-55	470	821	0
Home Farm F	0.4	70	300	-27	-161	43	139	-34
Home Farm G	13.5	398	692	0	-55	398	637	0
Home Farm H	26.4	244	522	0	-39	244	483	0
Kohrs East	23.2	70	306	-18	-207	52	99	-51
Kohrs West	28.5	76	358	25	-3	101	355	35
Korkenmeier	32.7	54	136	-6	12	48	148	-173
Kniepman A	8.8	42	126	-4	-119	38	7	-250
Kniepman B	14.3	36	196	-4	-119	32	77	-256
Kniepman C	19.9	132	212	-6	-152	126	60	-119
Kniepman D	46.1	260	296	14	75	274	371	11
Lampe A	59.6	--	--	-8	-10			--
Lampe B	13.8	--	--	-8	-10			--
Lampe C	21.7	--	--	-8	-10			--
Lampe D	22.5	--	--	-13	-26			--
Lampe E	4.1	--	--	-8	-10			--
Hay Field	52.2	70	300	-12	-189	58	111	-77

Change in Soil Test = Crop uptake for 2007-2010 - Nutrients applied to field for 2007-2010 in manure

9 lbs P required to change soil test 1 lb

4 lbs K required to change soil test 1 lb

Projected levels are based on planned crop rotations and planned manure applications.

**Bob Mondt
Supplemental Nutrients
Crop Year 2009**

Recommended Supplemental Nutrients if No Manure is Applied

Field Name	Acres	Crop	Yield	lbs N/ac	lbs P2O5 for Maintenance	lbs P2O5 for Buildup *	lbs K2O for Maintenance	lbs K2O for Buildup **
Home Farm A	6.7	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm B	3.7	Corn Silage	23	132	0	0	0	0
Home Farm C	4.7	Corn Silage	23	132	0	0	0	0
Home Farm D	2.7	Corn Silage	23	132	0	0	0	0
Home Farm E	12.8	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm F	1.6	Grass	3	132	61	0	161	0
Home Farm G	13.5	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm H	26.4	Corn Silage	23	132	0	0	0	0
Kohrs East	23.2	Alfalfa	4.5	0	54	0	225	0
Kohrs West	28.5	Corn Silage	23	132	0	0	161	0
Korkenmeier	33.2	Wheat	50	50	0	0	15	124
Kniepman A	8.8	Alfalfa	4.5	0	54	7	225	134
Kniepman B	14.3	Alfalfa	4.5	0	54	20	225	64
Kniepman C	19.9	Alfalfa	4.5	0	0	0	225	48
Kniepman D	46.1	Corn	110	132	0	0	31	0
Lampe A	59.6	Corn	110	92	0	0	0	0
Lampe B	13.8	Corn	110	92	0	0	0	0
Lampe C	21.7	Beans	40	0	0	0	0	0
Lampe D	22.5	Beans	40	0	0	0	0	0
Lampe E	5.6	Beans	40	0	0	0	0	0
Hay Field	52.4	Alfalfa	4.5	0	54	0	225	0

Crop Year 2010

Recommended Supplemental Nutrients if No Manure is Applied

Field Name	Acres	Crop	Yield	lbs N/ac	lbs P2O5 for Maintenance	lbs P2O5 for Buildup *	lbs K2O for Maintenance	lbs K2O for Buildup **
Home Farm A	6.7	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm B	3.7	Corn Silage	23	132	0	0	0	0
Home Farm C	4.7	Corn Silage	23	132	0	0	0	0
Home Farm D	2.7	Corn Silage	23	132	0	0	0	0
Home Farm E	12.8	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm F	1.6	Grass	3	132	61	0	161	0
Home Farm G	13.5	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm H	26.4	Corn Silage	23	132	0	0	0	0
Kohrs East	23.2	Alfalfa	4.5	0	54	0	225	0
Kohrs West	28.5	Corn Silage	23	132	0	0	161	0
Korkenmeier	33.2	Beans	40	0	0	0	52	124
Kniepman A	8.8	Alfalfa	4.5	0	54	7	225	134
Kniepman B	14.3	Alfalfa	4.5	0	54	20	225	64
Kniepman C	19.9	Alfalfa	4.5	0	0	0	225	48
Kniepman D	46.1	Corn	110	132	0	0	31	0
Lampe A	59.6	Beans	40	0	0	0	0	0
Lampe B	13.8	Beans	40	0	0	0	0	0
Lampe C	21.7	Corn	110	92	0	0	0	0
Lampe D	22.5	Corn	110	92	0	0	0	0
Lampe E	5.6	Corn	110	92	0	0	0	0
Hay Field	52.4	Alfalfa	4.5	0	54	0	225	0

* Buildup is based on buildup applications applied over a 4 year period. So, buildup = $(9(\text{Desired soil test} - \text{Actual soil test}))/4$

** Buildup is based on buildup applications applied over a 4 year period. So, buildup = $(4(\text{Desired soil test} - \text{Actual soil test}))/4$

Bob Mondt
Supplemental Nutrients
Crop Year 2011

Recommended Supplemental Nutrients if No Manure is Applied

Field Name	Acres	Crop	Yield	lbs N/ac	lbs P2O5 for Maintenance	lbs P2O5 for Buildup *	lbs K2O for Maintenance	lbs K2O for Buildup **
Home Farm A	6.7	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm B	3.7	Corn Silage	23	132	0	0	0	0
Home Farm C	4.7	Corn Silage	23	132	0	0	0	0
Home Farm D	2.7	Corn Silage	23	132	0	0	0	0
Home Farm E	12.8	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm F	1.6	Grass	3	132	61	0	161	0
Home Farm G	13.5	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm H	26.4	Corn Silage	23	132	0	0	0	0
Kohrs East	23.2	Alfalfa	0	0	54	0	225	0
Kohrs West	28.5	Corn Silage	23	132	0	0	161	0
Korkenmeier	33.2	Corn	110	92	47	0	31	124
Kniepman A	8.8	Corn	110	132	47	7	31	134
Kniepman B	14.3	Alfalfa	4.5	0	54	20	225	64
Kniepman C	19.9	Corn Silage	23	132	0	0	161	48
Kniepman D	46.1	Corn	110	132	0	0	31	0
Lampe A	59.6	Corn	110	92	0	0	0	0
Lampe B	13.8	Corn	110	92	0	0	0	0
Lampe C	21.7	Beans	40	0	0	0	0	0
Lampe D	22.5	Beans	40	0	0	0	0	0
Lampe E	5.6	Beans	40	0	0	0	0	0
Hay Field	52.4	Alfalfa	4.5	0	54	0	225	0

Crop Year 2012

Recommended Supplemental Nutrients if No Manure is Applied

Field Name	Acres	Crop	Yield	lbs N/ac	lbs P2O5 for Maintenance	lbs P2O5 for Buildup *	lbs K2O for Maintenance	lbs K2O for Buildup **
Home Farm A	6.7	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm B	3.7	Corn Silage	23	132	0	0	0	0
Home Farm C	4.7	Corn Silage	23	132	0	0	0	0
Home Farm D	2.7	Corn Silage	23	132	0	0	0	0
Home Farm E	12.8	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm F	1.6	Grass	3	132	61	0	161	0
Home Farm G	13.5	Wheat chop/ Corn silage	3/23	167	0	0	0	0
Home Farm H	26.4	Corn Silage	23	132	0	0	0	0
Kohrs East	23.2	Alfalfa	4.5	0	54	0	225	0
Kohrs West	28.5	Corn Silage	23	132	0	0	161	0
Korkenmeier	33.2	Wheat	50	50	45	0	15	124
Kniepman A	8.8	Alfalfa	4.5	0	54	7	225	134
Kniepman B	14.3	Corn	110	132	47	20	31	64
Kniepman C	19.9	Alfalfa	4.5	0	0	0	225	48
Kniepman D	46.1	Corn	110	132	0	0	31	0
Lampe A	59.6	Beans	40	0	0	0	0	0
Lampe B	13.8	Beans	40	0	0	0	0	0
Lampe C	21.7	Corn	110	92	0	0	0	0
Lampe D	22.5	Corn	110	92	0	0	0	0
Lampe E	5.6	Corn	110	92	0	0	0	0
Hay Field	52.4	Alfalfa	4.5	0	54	0	225	0

* Buildup is based on buildup applications applied over a 4 year period. So, buildup = (9(Desired soil test - Actual soil test))/4

** Buildup is based on buildup applications applied over a 4 year period. So, buildup = (4(Desired soil test - Actual soil test))/4

Value of Manure Compared to Fertilizer

Commercial Fertilizer

Market Value as of April 1, 2008

Nitrogen	Price per Ton	Price per pound of N
Anhydrous Ammonia (NH3)	\$795	\$0.48
Liquid 28% (28%N)	\$380	\$0.68

Phosphorus	Price per Ton	Price per pound of P2O5	Price per pound of N
DAP (18-46-0)	\$1,100	\$1.20	\$3.06

Potassium	Price per Ton	Price per pound of K2O
Potash (0-0-60)	\$700	\$0.58

*Price does not include application cost.

What is the value of Manure generated by the farm?

	N	P2O5	K2O
Liquid	\$2.31	\$3.59	\$2.33
Solid Cattle	\$5.21	\$3.59	\$3.50

Facility	Manure Produced	Value of Manure Based on N	Value of Manure Based on P2O5
Liquid	4,342,539 Gal	\$9,694.11	\$15,020.63
Solid Cattle	1,578 ton	\$8,208.90	\$5,653.04
Total		\$17,903.01	\$20,673.67

Manure

Analysis estimates from Midwest Plan Service

	Total N	P2O5	K2O
Dairy	lbs/1000 gal raw waste		
Liquid	4	3	4
	lbs/ton raw waste		
Solid manure	9	3	6

	2007	2008	2009	2010	2011	2012
Corn Acres (previous year Beans)	106	81	73	48	106	48
Corn Acres (previous year not Beans)	55	46	46	46	55	60
Corn Silage	112	94	94	94	114	94
Bean Acres	48	73	48	106	48	73
Wheat Acres	0	0	33	0	0	33
Alfalfa Acres	90	118	118	118	90	104
Grass Acres	0	0	0	0	0	0
Total	412	413	413	413	413	413