Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 9 | Field Name: Parler East & West | Field Acres: 110.31 | Application Acres: 110.31

Crop Year: 2011 | Crop: Corn Silage | Yield Goal: 25 | Planned Application Acres: 110.31

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	6.00	2.65	7.00	
Crop Removal(needs) /acre	150	66	175	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	40	Soybeans (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	9	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	24	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	73			LMFA 900.803 m) (7)
	Nitrogen	**Phosphorus**	**Potassium**	
Crop Needs after Credits	77	66	175	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			
Manure Application Method	Broadcast Solid, incorporated within 12 hours			
Ammonia Loss During Application	3 %	Source: MWPS 18 Table 10-2		LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.30	Source: MWPS 18 Table 10-5		
Plant Available Nitrogen / ton	3.84			
Application Rate Based on	**Tons/Acre**			LMFA 900.803 m) (8)
Nitrogen	20.0			
Phosphorus	27.0			
Current Bray P1 Soil Test lbs/Acre	226			LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	-1.9			
# of Apps at N rate to reach 300 P1	0	Soil Test Phosphorus Decreasing		
Target Application Rate Per Acre	20.0	**Tons**	Nitrogen Rate	
Target Application Rate Entire Field	2,210	**Tons**		

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	77	49	98
Available Nutrients from all sources	150	49	98
Over (Under) application of nutrients	0	-17	-77

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	15	2012	50% of 1.47 / ton
Third Year Following Application	7	2013	25% of 1.47 / ton
Fourth Year Following Application	4	2014	12.5% of 1.47 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field #	11	Field Name	Rogers 44	Field Acres	35.43	Application Acres	35.43
Crop Year	2011	Crop	Soybeans	Yield Goal	42	Planned Application Acres	35.43

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	3.75	0.85	1.30	
Crop Removal(needs) /acre	158	36	55	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0	Corn Grain (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	13	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	11	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	24			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	134	36	55	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			

Manure Application Method	Broadcast Solid, incorporated within 12 hours		
Ammonia Loss During Application	3 %	Source: MWPS 18 Table 10-2	LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.25	Source: MWPS 18 Table 10-5	
Plant Available Nitrogen / ton	3.60		
Application Rate Based on	**Tons/Acre**		LMFA 900.803 m) (8)
Nitrogen	37.1		
Phosphorus	14.6		
Current Bray P1 Soil Test lbs/Acre	0		LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	6.1		
# of Apps at N rate to reach 300 P1	49		
Target Application Rate Per Acre	37.1	**Tons**	Nitrogen Rate
Target Application Rate Entire Field	1,314	**Tons**	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	134	91	182
Available Nutrients from all sources	158	91	182
Over (Under) application of nutrients	0	55	127

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	23	2012	50% of 1.22 / ton
Third Year Following Application	11	2013	25% of 1.22 / ton
Fourth Year Following Application	6	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 12 | Field Name: Ruez Bottom | Field Acres: 57.32 | Application Acres: 52.64

Crop Year: 2011 | Crop: Corn Grain | Yield Goal: 124 | Planned Application Acres: 52.64

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	1.20	0.43	0.28	
Crop Removal(needs) /acre	149	53	35	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0	Corn Silage (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	13	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	21	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	34			LMFA 900.803 m) (7)
	Nitrogen	**Phosphorus**	**Potassium**	
Crop Needs after Credits	115	53	35	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			

Manure Application Method: Broadcast Solid, incorporated within 12 hours

Ammonia Loss During Application: 3 % Source: MWPS 18 Table 10-2 LMFA 900.803 m) (4)

Mineralization Rate - Application Year: 0.25 Source: MWPS 18 Table 10-5

Plant Available Nitrogen / ton: 3.60

Application Rate Based on	Tons/Acre	
Nitrogen	31.9	LMFA 900.803 m) (8)
Phosphorus	21.8	
Current Bray P1 Soil Test lbs/Acre	216	LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	2.8	
# of Apps at N rate to reach 300 P1	30	
Target Application Rate Per Acre	31.9 **Tons**	Nitrogen Rate
Target Application Rate Entire Field	1,679 **Tons**	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	115	78	156
Available Nutrients from all sources	149	78	156
Over (Under) application of nutrients	0	25	122

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	19	2012	50% of 1.22 / ton
Third Year Following Application	10	2013	25% of 1.22 / ton
Fourth Year Following Application	5	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 13 | Field Name: Wood Bridge | Field Acres: 15.70 | Application Acres: 10.47

Crop Year: 2011 | Crop: Corn Silage | Yield Goal: 25 | Planned Application Acres: 10.47

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	6.00	2.65	7.00	
Crop Removal(needs) /acre	150	66	175	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	40	Soybeans (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	5	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	25	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	70			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	80	66	175	LMFA 900.803 m) (6)

If Book: Source MWPS 18

Sample Results From:				
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			
Manure Application Method	Broadcast Solid, incorporated within 12 hours			
Ammonia Loss During Application	3 %	Source: MWPS 18 Table 10-2		LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.25	Source: MWPS 18 Table 10-5		
Plant Available Nitrogen / ton	3.60			

Application Rate Based on	Tons/Acre	
Nitrogen	22.2	LMFA 900.803 m) (8)
Phosphorus	27.0	
Current Bray P1 Soil Test lbs/Acre	99	LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	-1.3	
# of Apps at N rate to reach 300 P1	0	Soil Test Phosphorus Decreasing
Target Application Rate Per Acre	22.2	Tons Nitrogen Rate
Target Application Rate Entire Field	233	Tons

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	80	54	109
Available Nutrients from all sources	150	54	109
Over (Under) application of nutrients	0	-12	-66

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	14	2012	50% of 1.22 / ton
Third Year Following Application	7	2013	25% of 1.22 / ton
Fourth Year Following Application	3	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field #	14	Field Name	Ruez Park South 30	Field Acres	28.82	Application Acres	23.38
Crop Year	2011	Crop	Soybeans	Yield Goal	44	Planned Application Acres	23.38

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	3.75	0.85	1.30	
Crop Removal(needs) /acre	165	37	57	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0			LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	14	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	11	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	25			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	140	37	57	LMFA 900.803 m) (6)

If Book: Source MWPS 18

Sample Results From:				
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			
Manure Application Method	Broadcast Solid, incorporated within 12 hours			
Ammonia Loss During Application	3 %	Source: MWPS 18 Table 10-2		LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.25	Source: MWPS 18 Table 10-5		
Plant Available Nitrogen / ton	3.60			

Application Rate Based on	**Tons/Acre**		LMFA 900.803 m) (8)
Nitrogen	38.9		
Phosphorus	15.3		
Current Bray P1 Soil Test lbs/Acre	194.0		LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	6.4		
# of Apps at N rate to reach 300-P1	16.5		
Target Application Rate Per Acre	38.9	**Tons**	Nitrogen Rate
Target Application Rate Entire Field	909	**Tons**	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	140	95	191
Available Nutrients from all sources	165	95	191
Over (Under) application of nutrients	0	58	133

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	24	2012	50% of 1.22 / ton
Third Year Following Application	12	2013	25% of 1.22 / ton
Fourth Year Following Application	6	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field #	16	Field Name	Sievers 13	Field Acres	13.78	Application Acres	13.78
Crop Year	2011	Crop	Soybeans	Yield Goal	43	Planned Application Acres	10.27

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	3.75	0.85	1.30	
Crop Removal(needs) /acre	161	37	56	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0	Corn Silage (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	14	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	14	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	28			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	133	37	56	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/Bedding	9.0	3.0	6.0	
Plant Ammonia Nitrogen / ton	4.0			
Manure Application Method	Broadcast Solid, incorporated within 12 hours			
Ammonia Loss During Application	3 % Source: MWPS 18 Table 10-2			LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.25 Source: MWPS 18 Table 10-5			
Plant Available Nitrogen / ton	5.13			

Application Rate Based on	**Tons/Acre**
Nitrogen	26.0
Phosphorus	12.2
Current Bray P1 Soil Test lbs/Acre	0
At Nitrogen Rate P1 Buildup Equals	4.6
# of Apps at N rate to reach 300 P1	65

LMFA 900.803 m) (8)

LMFA 900.803 l)

Target Application Rate Per Acre	26.0	**Tons**	Nitrogen Rate
Target Application Rate Entire Field	267	**Tons**	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	133	78	156
Available Nutrients from all sources	161	78	156
Over (Under) application of nutrients	0	41	100

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	16	2012	50% of 1.25 / ton
Third Year Following Application	8	2013	25% of 1.25 / ton
Fourth Year Following Application	4	2014	12.5% of 1.25 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 16 | Field Name: Sievers 13 | Field Acres: 13.78 | Application Acres: 13.78

Crop Year: 2011 | Crop: Soybeans | Yield Goal: 43 | Planned Application Acres: 3.51

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	3.75	0.85	1.30	
Crop Removal(needs) /acre	161	37	56	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0	Corn Silage (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	14	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	14	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	28			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	133	37	56	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			
Manure Application Method	Broadcast Solid, incorporated within 12 hours			
Ammonia Loss During Application	3 %	Source: MWPS 18 Table 10-2		LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.25	Source: MWPS 18 Table 10-5		
Plant Available Nitrogen / ton	3.60			

Application Rate Based on	**Tons/Acre**		LMFA 900.803 m) (8)
Nitrogen	37.0		
Phosphorus	14.9		
Current Bray P1 Soil Test lbs/Acre	0		LMFA 900.803 i)
At Nitrogen Rate P1 Buildup Equals	6.0		
# of Apps at N rate to reach 300 P1	50		
Target Application Rate Per Acre	37.0	**Tons**	Nitrogen Rate
Target Application Rate Entire Field	130	**Tons**	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	133	91	181
Available Nutrients from all sources	161	91	181
Over (Under) application of nutrients	0	54	126

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	23	2012	50% of 1.22 / ton
Third Year Following Application	11	2013	25% of 1.22 / ton
Fourth Year Following Application	6	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 17 | Field Name: Tower 16 | Field Acres: 11.59 | Application Acres: 9.44

Crop Year: 2011 | Crop: Soybeans | Yield Goal: 44 | Planned Application Acres: 9.44

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	3.75	0.85	1.30	
Crop Removal(needs) /acre	165	37	57	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0	Corn Grain (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	14	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	18	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	32			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	133	37	57	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			

Manure Application Method: Broadcast Solid, incorporated within 12 hours

Ammonia Loss During Application: 3 % Source: MWPS 18 Table 10-2 — LMFA 900.803 m) (4)

Mineralization Rate - Application Year: 0.25 Source: MWPS 18 Table 10-5

Plant Available Nitrogen / ton: 3.60

Application Rate Based on	Tons/Acre	
Nitrogen	37.0	LMFA 900.803 m) (5)
Phosphorus	15.3	
Current Bray P1 Soil Test lbs/Acre	126	LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	5.9	
# of Apps at N rate to reach 300 P1	29	
Target Application Rate Per Acre	37.0 Tons	Nitrogen Rate
Target Application Rate Entire Field	349 Tons	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	133	91	181
Available Nutrients from all sources	165	91	181
Over (Under) application of nutrients	0	53	124

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	23	2012	50% of 1.22 / ton
Third Year Following Application	11	2013	25% of 1.22 / ton
Fourth Year Following Application	6	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field #	19	Field Name	V V & McBride	Field Acres	75.75	Application Acres	75.75
Crop Year	2011	Crop	Soybeans	Yield Goal	44	Planned Application Acres	75.75

	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	
Crop Removal per bushel	3.75	0.85	1.30	
Crop Removal(needs) /acre	165	37	57	LMFA 900.803 m) (6)
Nitrogen Credits				
Commercial Fertilizer	0	0	0	LMFA 900.803 m) (7)
Legume	0	Corn Silage (Previous Crop)		LMFA 900.803 m) (7)
Manure Applications 2008	0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
2009	14	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
2010	14	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
Total Nitrogen Credits	28			LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium	
Crop Needs after Credits	137	37	57	LMFA 900.803 m) (6)
Sample Results From:	*If Book: Source MWPS 18*			
Manure Source: Solid w/sand Bedding	7.3	2.5	4.9	
Plant Ammonia Nitrogen / ton	2.5			

Manure Application Method	Broadcast Solid, incorporated within 12 hours		
Ammonia Loss During Application	3 %	Source: MWPS 18 Table 10-2	LMFA 900.803 m) (4)
Mineralization Rate - Application Year	0.25	Source: MWPS 18 Table 10-5	
Plant Available Nitrogen / ton	3.60		

Application Rate Based on	**Tons/Acre**		LMFA 900.803 m) (8)
Nitrogen	38.1		
Phosphorus	15.3		
Current Bray P1 Soil Test lbs/Acre	70		LMFA 900.803 l)
At Nitrogen Rate P1 Buildup Equals	6.2		
# of Apps at N rate to reach 300 P1	37		
Target Application Rate Per Acre	38.1	**Tons**	Nitrogen Rate
Target Application Rate Entire Field	2,884	**Tons**	

	Nitrogen	Phosphorus	Potassium
Available Manure Nutrients Applied	137	93	187
Available Nutrients from all sources	165	93	187
Over (Under) application of nutrients	0	56	129

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	23	2012	50% of 1.22 / ton
Third Year Following Application	12	2013	25% of 1.22 / ton
Fourth Year Following Application	6	2014	12.5% of 1.22 / ton