

Waste Application Worksheet

Westridge Dairy

Operation ID:

Field # Field Name Field Acres Application Acres
 Crop Year Crop Yield Goal Planned Application Acres

	Nitrogen	Phosphorus	Potassium
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N	P ₂ O ₅	K ₂ O
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Crop Removal per bushel
 Crop Removal(needs) /acre

6.00	2.65	7.00
150	66	175

LMFA 900.803 m) (5)

Nitrogen Credits

Commercial Fertilizer

0	0	0
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LMFA 900.803 m) (7)

Legume

40	Soybeans	
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LMFA 900.803 m) (7)

Previous Crop

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
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77	66	175
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LMFA 900.803 m) (6)

Crop Needs after Credits

Sample Results From:

Manure Source: Solid w/sand Bedding

7.3	2.5	4.9
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Plant Ammonia Nitrogen / ton

2.5

Manure Application Method

Broadcast Solid, incorporated within 12 hours

Ammonia Loss During Application

% Source: MWPS 18 Table 10-2

LMFA 900.803 m) (4)

Mineralization Rate - Application Year

Source: MWPS 18 Table 10-5

Plant Available Nitrogen / ton

3.84

Application Rate Based on

Tons/Acre

Nitrogen

20.0

LMFA 900.803 m) (8)

Phosphorus

27.0

LMFA 900.803 t)

Current Bray P1 Soil Test lbs/Acre

226

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
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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	<input type="text" value="15"/>	2012	50% of 1.47 / ton
Third Year Following Application	<input type="text" value="7"/>	2013	25% of 1.47 / ton
Fourth Year Following Application	<input type="text" value="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 Phosphorus Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

3.75
158

0.85
36

1.30
55

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

0

Corn Grain

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008
2009
2010

0
13
11

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

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:

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

37.1

Phosphorus

14.6

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m) (8)

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

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

1.20
149

0.43
53

0.28
35

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

0

Corn Silage

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008
2009
2010

0
13
21

Mineralization Rate = 12.5 %
Mineralization Rate = 25 %
Mineralization Rate = 50 %

LMFA 900.803 m) (7)

LMFA 900.803 m) (7)

LMFA 900.803 m) (7)

Total Nitrogen Credits

34

LMFA 900.803 m) (7)

Nitrogen

Phosphorus

Potassium

115

53

35

LMFA 900.803 m) (6)

Crop Needs after Credits

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 i)

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
Available Nutrients from all sources
Over (Under) application of nutrients

115
149
0

78
78
25

156
156
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

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

6.00

2.65

7.00

150

66

175

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

40

Soybeans

LMFA 900.803 m) (7)

Previous Crop

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

80

66

175

LMFA 900.803 m) (5)

Crop Needs after Credits

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 m) (1)

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

80

54

109

Available Manure Nutrients Applied

150

54

109

Available Nutrients from all sources

0

-12

-66

Over (Under) application of nutrients

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 Phosphorus Potassium

	N	P ₂ O ₅	K ₂ O	
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

Legume

Manure Applications 2008

2009

2010

Total Nitrogen Credits

0	0	0	LMFA 900.803 m) (7)
0			LMFA 900.803 m) (7)
0	Mineralization Rate = 12.5 %		LMFA 900.803 m) (7)
14	Mineralization Rate = 25 %		LMFA 900.803 m) (7)
11	Mineralization Rate = 50 %		LMFA 900.803 m) (7)
25			LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

Crop Needs after Credits

Sample Results From:

Manure Source: Solid w/sand Bedding

Plant Ammonia Nitrogen / ton

Manure Application Method

Ammonia Loss During Application

Mineralization Rate - Application Year

Plant Available Nitrogen / ton

140	37	57	LMFA 900.803 m) (6)
7.3	2.5	4.9	
2.5			
Broadcast Solid, incorporated within 12 hours			
3 %	Source: MWPS 18 Table 10-2		LMFA 900.803 m) (4)
0.25	Source: MWPS 18 Table 10-5		
3.60			

Application Rate Based on

Tons/Acre

Nitrogen

Phosphorus

Current Bray P1 Soil Test lbs/Acre

At Nitrogen Rate P1 Buildup Equals

of Apps at N rate to reach 300-P1

38.9
15.3
194.0
6.4
16.5

LMFA 900.803 m) (8)

LMFA 900.803 l)

Target Application Rate Per Acre

38.9

Tons

Nitrogen Rate

Target Application Rate Entire Field

909

Tons

Nitrogen Phosphorus Potassium

Available Manure Nutrients Applied
Available Nutrients from all sources
Over (Under) application of nutrients

140	95	191
165	95	191
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 Phosphorus Potassium

N P₂O₅ K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

3.75 0.85 1.30
161 37 56

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0 0 0

LMFA 900.803 m) (7)

Legume

0 Corn Silage

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008
2009
2010

0
14
14

Mineralization Rate = 12.5 %
Mineralization Rate = 25 %
Mineralization Rate = 50 %

LMFA 900.803 m) (7)
LMFA 900.803 m) (7)
LMFA 900.803 m) (7)

Total Nitrogen Credits

28

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

133 37 56

LMFA 900.803 m) (6)

Crop Needs after Credits

Sample Results From:

Manure Source: Solid w/Bedding

Plant Ammonia Nitrogen / ton

9.0 3.0 6.0
4.0

If Book: Source MWPS 18

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

LMFA 900.803 m) (8)

Phosphorus

12.2

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m)

At Nitrogen Rate P1 Buildup Equals

4.6

of Apps at N rate to reach 300 P1

65

Target Application Rate Per Acre

26.0

Tons

Nitrogen Rate

Target Application Rate Entire Field

267

Tons

Nitrogen Phosphorus Potassium

133 78 156
161 78 156
0 41 100

Available Manure Nutrients Applied

Available Nutrients from all sources

Over (Under) application of nutrients

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

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

3.75
161

0.85
37

1.30
56

LMFA 900.803 m) (5)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

0

Corn Silage

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008
2009
2010

0
14
14

Mineralization Rate = 12.5 %
Mineralization Rate = 25 %
Mineralization Rate = 50 %

LMFA 900.803 m) (7)

LMFA 900.803 m) (7)

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

Nitrogen

37.0

LMFA 900.803 m) (8)

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 Phosphorus Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

3.75

0.85

1.30

165

37

57

LMFA 900.803 m) (5)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

0

Corn Grain

LMFA 900.803 m) (7)

Previous Crop

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

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

37.0

LMFA 900.803 m) (8)

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 Phosphorus Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

3.75
165

0.85
37

1.30
57

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

0

Corn Silage

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008
2009
2010

0
14
14

Mineralization Rate = 12.5 %
Mineralization Rate = 25 %
Mineralization Rate = 50 %

LMFA 900.803 m) (7)
LMFA 900.803 m) (7)
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

Nitrogen

38.1

Phosphorus

15.3

LMFA 900.803 m) (8)

Current Bray P1 Soil Test lbs/Acre

70

At Nitrogen Rate P1 Buildup Equals

6.2

LMFA 900.803 m)

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
Available Nutrients from all sources
Over (Under) application of nutrients

137
165
0

93
93
56

187
187
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