

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 1 Field Name Ames South 52 Field Acres 49.59 Application Acres 49.04
Crop Year 2011 Crop Corn Silage Yield Goal 25 Planned Application Acres 49.04

Crop Removal per bushel
Crop Removal(needs) /acre

Nitrogen **Phosphorus** **Potassium**

N

P₂O₅

K₂O

6.00

2.65

7.00

150

66

175

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)

40

Soybeans

LMFA 900.803 m) (7)

Previous Crop

0

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

5

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

26

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

71

LMFA 900.803 m) (7)

Nitrogen **Phosphorus** **Potassium**

79

66

175

LMFA 900.803 m) (6)

If Book: Source MWPS 18

4.0

3.0

4.0

2.0

Sample Results From:

Manure Source: Lagoon

Plant Ammonia Nitrogen / 1000 gallons

Manure Application Method

Ammonia Loss During Application

Mineralization Rate - Application Year

Plant Available Nitrogen / 1000 gallons

Application Rate Based on

Nitrogen

Phosphorus

Current Bray P1 Soil Test lbs/Acre

At Nitrogen Rate P1 Buildup Equals

of Apps at N rate to reach 300 P1

Gallons/Acre

30,620.2

22,083.3

114

2.8

65

LMFA 900.803 m) (8)

LMFA 900.803 m)

Target Application Rate Per Acre

30,620.2

Gallons

Nitrogen Rate

Target Application Rate Entire Field

1,501,812

Gallons

Nitrogen

Phosphorus

Potassium

79

92

122

150

92

122

0

26

-53

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	9	2012	50% of 0.60 /1000 gal
Third Year Following Application	5	2013	25% of 0.60 /1000 gal
Fourth Year Following Application	2	2014	12.5% of 0.60 /1000 gal

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 2 Field Name Baker East Field Acres 42.84 Application Acres 37.07

Crop Year 2011 Crop Soybeans Yield Goal 43 Planned Application Acres 37.07

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) (6)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

40

LMFA 900.803 m) (7)

Manure Applications 2008
2009
2010

0

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

14

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

10

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

Total Nitrogen Credits

64

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

Crop Needs after Credits

97

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

27.0

LMFA 900.803 m) (8)

Phosphorus

14.9

Current Bray P1 Soil Test lbs/Acre

81.0

LMFA 900.803 m) (1)

At Nitrogen Rate P1 Buildup Equals

3.3

of Apps at N rate to reach 300-P1

66.5

Target Application Rate Per Acre

27.0

Tons

Nitrogen Rate

Target Application Rate Entire Field

1,002

Tons

Nitrogen Phosphorus Potassium

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

97

66

132

161

66

132

0

30

77

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	17	2012	50% of 1.22 / ton
Third Year Following Application	8	2013	25% of 1.22 / ton
Fourth Year Following Application	4	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 3

Field Name Road Bottom

Field Acres 19.58

Application Acres 19.58

Crop Year 2011

Crop Corn Silage

Yield Goal 25

Planned Application Acres 19.58

Nitrogen

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

6.00
150

2.65
66

7.00
175

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

0

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

2009

13

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

2010

15

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

Total Nitrogen Credits

28

LMFA 900.803 m) (7)

Nitrogen

Phosphorus

Potassium

Crop Needs after Credits

122

66

175

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

23.8

LMFA 900.803 m) (8)

Phosphorus

22.1

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m) (8)

At Nitrogen Rate P1 Buildup Equals

0.6

of Apps at N rate to reach 300 P1

530

Target Application Rate Per Acre

23.8

Tons

Nitrogen Rate

Target Application Rate Entire Field

466

Tons

Nitrogen

Phosphorus

Potassium

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

122
150
0

71
71
5

143
143
-32

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 1.25 / ton

Third Year Following Application

7

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:

Field #

Field Name

Field Acres

Application Acres

Crop Year

Crop

Yield Goal

Planned Application Acres

Nitrogen	Phosphorus	Potassium
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N

P₂O₅

K₂O

Crop Removal per bushel

Crop Removal(needs) /acre

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

Legume

LMFA 900.803 m) (7)

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008

2009

2010

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

LMFA 900.803 m) (7)

Nitrogen	Phosphorus	Potassium
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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

Application Rate Based on

Nitrogen

Phosphorus

Current Bray P1 Soil Test lbs/Acre

At Nitrogen Rate P1 Buildup Equals

of Apps at N rate to reach 300 P1

LMFA 900.803 m) (6)

If Book: Source MWPS 18

Broadcast Solid, incorporated within 12 hours

Source: MWPS 18 Table 10-2

LMFA 900.803 m) (4)

Source: MWPS 18 Table 10-5

Tons/Acre

LMFA 900.803 m) (8)

LMFA 900.803 m) (1)

Soil Test Phosphorus Decreasing

Target Application Rate Per Acre

Tons

Nitrogen Rate

Target Application Rate Entire Field

Tons

Nitrogen	Phosphorus	Potassium
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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	<input type="text" value="13"/>	2012	50% of 1.22 / ton
Third Year Following Application	<input type="text" value="6"/>	2013	25% of 1.22 / ton
Fourth Year Following Application	<input type="text" value="3"/>	2014	12.5% of 1.22 / ton

Waste Application Worksheet

Westridge Dairy

Operation ID: 55078

Field # 5 Field Name John Liefer Field Acres 50.63 Application Acres 31.72
Crop Year 2011 Crop Soybeans Yield Goal 43 Planned Application Acres 31.72

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) (6)

Nitrogen Credits

Commercial Fertilizer

0

0

0

LMFA 900.803 m) (7)

Legume

0

LMFA 900.803 m) (7)

Manure Applications 2008
2009
2010

0
14
14

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

28

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

Crop Needs after Credits

133

37

56

LMFA 900.803 m) (6)

Sample Results From:

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

LMFA 900.803 m) (8)

Phosphorus

12.2

Current Bray P1 Soil Test lbs/Acre

148.0

LMFA 900.803 m) (1)

At Nitrogen Rate P1 Buildup Equals

4.6

of Apps at N rate to reach 300-P1

33.1

Target Application Rate Per Acre

26.0

Tons

Nitrogen Rate

Target Application Rate Entire Field

824

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 # 7 Field Name Menard 24 Field Acres 20.75 Application Acres 20.75

Crop Year 2011 Crop Soybeans Yield Goal 42 Planned Application Acres 20.75

Nitrogen Phosphorus Potassium

N P₂O₅ K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

3.75	0.85	1.30
158	36	55

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0	0	0
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LMFA 900.803 m) (7)

Legume

0	Corn Silage
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LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2008
2009
2010

0
13
14

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

27

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

131	36	55
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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
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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

36.3

LMFA 900.803 m) (8)

Phosphorus

14.6

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m)

At Nitrogen Rate P1 Buildup Equals

5.9

of Apps at N rate to reach 300 P1

51

Target Application Rate Per Acre

36.3

Tons

Nitrogen Rate

Target Application Rate Entire Field

752

Tons

Nitrogen Phosphorus Potassium

131	89	178
158	89	178
0	53	123

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	22	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 # 8 Field Name Nicholson 12 Field Acres 11.55 Application Acres 8.64

Crop Year 2011 Crop Corn Silage Yield Goal 25 Planned Application Acres 8.64

Crop Removal per bushel
Crop Removal(needs) /acre

Nitrogen Phosphorus Potassium

N	P ₂ O ₅	K ₂ O
6.00	2.65	7.00
150	66	175

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

0	0	0
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LMFA 900.803 m) (7)

Legume

40	Soybeans
	Previous Crop

LMFA 900.803 m) (7)

Manure Applications 2008
2009
2010

0
5
19

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

64

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

86	66	175
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LMFA 900.803 m) (6)

Sample Results From:

Manure Source: Lagoon

If Book: Source MWPS 18

4.0	3.0	4.0
2.0		

Plant Ammonia Nitrogen / 1000 gallons

Manure Application Method

Injected

Ammonia Loss During Application

1 %

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 / 1000 gallons

2.58

Application Rate Based on

Gallons/Acre

LMFA 900.803 m) (8)

Nitrogen

33,333.3

Phosphorus

22,083.3

Current Bray P1 Soil Test lbs/Acre

51

LMFA 900.803 m) (8)

At Nitrogen Rate P1 Buildup Equals

3.8

of Apps at N rate to reach 300 P1

66

Target Application Rate Per Acre

33,333.3

Gallons

Nitrogen Rate

Target Application Rate Entire Field

288,000

Gallons

Nitrogen Phosphorus Potassium

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

86	100	133
150	100	133
0	34	-42

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	10	2012	50% of 0.60 /1000 gal
Third Year Following Application	5	2013	25% of 0.60 /1000 gal
Fourth Year Following Application	2	2014	12.5% of 0.60 /1000 gal