

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 11 Field Name 11 Field Acres 138.55 Application Acres 138.55
Crop Year 2012 Crop Corn Silage Yield Goal 25 Planned Application Acres 96.55

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

0 Corn Silage

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2009
2010
2011

0
9
0

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

9

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

141 66 175

LMFA 900.803 m) (6)

Crop Needs after Credits

Sample Results From:

Book

If Book: Source MWPS 18

Manure Source: Pen Pack

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

27.5

LMFA 900.803 m) (8)

Phosphorus

22.1

Current Bray P1 Soil Test lbs/Acre

104

LMFA 900.803 l)

At Nitrogen Rate P1 Buildup Equals

1.8

of Apps at N rate to reach 300 P1

109

Target Application Rate Per Acre

27.5

Tons

Nitrogen Rate

Target Application Rate Entire Field

2,654

Tons

Nitrogen Phosphorus Potassium

141 82 165
150 82 165
0 16 -10

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

17

2013

50% of 1.25 / ton

Third Year Following Application

9

2014

25% of 1.25 / ton

Fourth Year Following Application

4

2015

12.5% of 1.25 / ton

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 11 Field Name 11 Field Acres 138.55 Application Acres 138.55

Crop Year 2012 Crop Corn Silage Yield Goal 25 Planned Application Acres 42.00

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

0

Corn Silage

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2009

0

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

2010

9

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

2011

0

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

Total Nitrogen Credits

9

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

Crop Needs after Credits

141

66

175

LMFA 900.803 m) (6)

Sample Results From: 09/03/08

If Book: Source MWPS 18

Manure Source: Pit Manure

4.2

2.4

1.9

Plant Ammonia Nitrogen / ton

2.2

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

2.63

Application Rate Based on

Tons/Acre

Nitrogen

53.5

LMFA 900.803 m) (8)

Phosphorus

27.6

Current Bray P1 Soil Test lbs/Acre

104

LMFA 900.803 i)

At Nitrogen Rate P1 Buildup Equals

6.9

of Apps at N rate to reach 300 P1

28

Target Application Rate Per Acre

53.5

Tons

Nitrogen Rate

Target Application Rate Entire Field

2,248

Tons

Nitrogen Phosphorus Potassium

Available Manure Nutrients Applied

141

128

102

Available Nutrients from all sources

150

128

102

Over (Under) application of nutrients

0

62

-73

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year Nitrogen Credit/Acre Crop Year Mineralization Rate

Second Year Following Application

13

2013

50% of 0.50 / ton

Third Year Following Application

7

2014

25% of 0.50 / ton

Fourth Year Following Application

3

2015

12.5% of 0.50 / ton

Waste Application Worksheet

Varel Dairy, Inc.

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
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

<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
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LMFA 900.803 m) (7)

Legume

<input type="text" value="0"/>	<input type="text" value="Corn Silage"/>	
--------------------------------	------------------------------------------	--

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2009

<input type="text" value="0"/>	Mineralization Rate = 12.5 %	
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LMFA 900.803 m) (7)

2010

<input type="text" value="7"/>	Mineralization Rate = 25 %	
--------------------------------	----------------------------	--

LMFA 900.803 m) (7)

2011

<input type="text" value="0"/>	Mineralization Rate = 50 %	
--------------------------------	----------------------------	--

LMFA 900.803 m) (7)

Total Nitrogen Credits

<input type="text" value="7"/>		
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LMFA 900.803 m) (7)

	Nitrogen	Phosphorus	Potassium
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<input type="text" value="143"/>	<input type="text" value="66"/>	<input type="text" value="175"/>
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LMFA 900.803 m) (6)

Sample Results From: 09/03/08

If Book: Source MWPS 18

Manure Source: Pit Manure

<input type="text" value="4.2"/>	<input type="text" value="2.4"/>	<input type="text" value="1.9"/>
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Plant Ammonia Nitrogen / ton

<input type="text" value="2.2"/>

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

<input type="text" value="2.63"/>

Application Rate Based on

Tons/Acre

Nitrogen

LMFA 900.803 m) (8)

Phosphorus

Current Bray P1 Soil Test lbs/Acre

LMFA 900.803 i)

At Nitrogen Rate P1 Buildup Equals

of Apps at N rate to reach 300 P1

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

<input type="text" value="143"/>	<input type="text" value="130"/>	<input type="text" value="103"/>
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Available Nutrients from all sources

<input type="text" value="150"/>	<input type="text" value="130"/>	<input type="text" value="103"/>
----------------------------------	----------------------------------	----------------------------------

Over (Under) application of nutrients

<input type="text" value="0"/>	<input type="text" value="64"/>	<input type="text" value="-72"/>
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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="14"/>	2013	50% of 0.50 / ton
Third Year Following Application	<input type="text" value="7"/>	2014	25% of 0.50 / ton
Fourth Year Following Application	<input type="text" value="3"/>	2015	12.5% of 0.50 / ton

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID:

Field #

Field Name

Field Acres

Application Acres

Crop Year

Crop

Yield Goal

Planned Application Acres

Nitrogen

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

LMFA 900.803 m) (7)

Legume

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2009
 2010
 2011

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

Crop Needs after Credits

LMFA 900.803 m) (6)

Sample Results From: 09/03/08

If Book: Source MWPS 18

Manure Source: Pit Manure

Plant Ammonia Nitrogen / ton

Manure Application Method

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

Application Rate Based on

Tons/Acre

Nitrogen

LMFA 900.803 m) (8)

Phosphorus

Current Bray P1 Soil Test lbs/Acre

LMFA 900.803 l)

At Nitrogen Rate P1 Buildup Equals

of Apps at N rate to reach 300 P1

Target Application Rate Per Acre

Tons

Nitrogen Rate

Target Application Rate Entire Field

Tons

Nitrogen

Phosphorus

Potassium

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

2013

50% of 0.50 / ton

Third Year Following Application

2014

25% of 0.50 / ton

Fourth Year Following Application

2015

12.5% of 0.50 / ton

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 21 Field Name 21 Field Acres 2.48 Application Acres 2.48
Crop Year 2012 Crop Corn Grain Yield Goal 128 Planned Application Acres 2.48

Nitrogen Phosphorus Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

1.20
154

0.43
55

0.28
36

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 2009
2010
2011

0
0
0

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

40

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

Crop Needs after Credits

114

55

36

LMFA 900.803 m) (6)

Sample Results From: 09/03/08

If Book: Source MWPS 18

Manure Source: Pit Manure

4.2

2.4

1.9

Plant Ammonia Nitrogen / ton

2.2

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

2.63

Application Rate Based on

Tons/Acre

Nitrogen

43.1

LMFA 900.803 m) (8)

Phosphorus

22.9

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m)

At Nitrogen Rate P1 Buildup Equals

5.4

of Apps at N rate to reach 300 P1

56

Target Application Rate Per Acre

43.1

Tons

Nitrogen Rate

Target Application Rate Entire Field

107

Tons

Nitrogen Phosphorus Potassium

Available Manure Nutrients Applied

114

104

82

Available Nutrients from all sources

154

104

82

Over (Under) application of nutrients

0

48

46

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
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Second Year Following Application

11

2013

50% of 0.50 / ton

Third Year Following Application

5

2014

25% of 0.50 / ton

Fourth Year Following Application

3

2015

12.5% of 0.50 / ton

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 22 Field Name 22 Field Acres 3.57 Application Acres 3.57

Crop Year 2012 Crop Corn Grain Yield Goal 146 Planned Application Acres 2.50

Nitrogen Phosphorus Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

1.20
175

0.43
63

0.28
41

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 2009

0

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

2010

0

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

2011

0

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

Total Nitrogen Credits

40

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

Crop Needs after Credits

135

63

41

LMFA 900.803 m) (6)

Sample Results From: 09/03/08

If Book: Source MWPS 18

Manure Source: Pit Manure

4.2

2.4

1.9

Plant Ammonia Nitrogen / ton

2.2

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

2.63

Application Rate Based on

Tons/Acre

Nitrogen

51.3

LMFA 900.803 m) (8)

Phosphorus

26.2

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 f)

At Nitrogen Rate P1 Buildup Equals

6.7

of Apps at N rate to reach 300 P1

45

Target Application Rate Per Acre

51.3

Tons

Nitrogen Rate

Target Application Rate Entire Field

128

Tons

Nitrogen Phosphorus Potassium

Available Manure Nutrients Applied

135

123

98

Available Nutrients from all sources

175

123

98

Over (Under) application of nutrients

0

60

57

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year Nitrogen Credit/Acre Crop Year Mineralization Rate

Second Year Following Application

13

2013

50% of 0.50 / ton

Third Year Following Application

6

2014

25% of 0.50 / ton

Fourth Year Following Application

3

2015

12.5% of 0.50 / ton

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 31 Field Name 31 Field Acres 19.36 Application Acres 19.36
Crop Year 2012 Crop Corn Grain Yield Goal 144 Planned Application Acres 13.75

Nitrogen Phosphorus Potassium

N	P ₂ O ₅	K ₂ O
1.20	0.43	0.28
173	62	40

Crop Removal per bushel
Crop Removal(needs) /acre

LMFA 900.803 m) (6)

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 2009
2010
2011

0
8
0

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

48

LMFA 900.803 m) (7)

Nitrogen Phosphorus Potassium

125	62	40
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LMFA 900.803 m) (6)

Sample Results From: 6/12 & 9/3/08

If Book: Source MWPS 18

Manure Source: Liquid Manure Average

9.5	4.8	7.8
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Plant Ammonia Nitrogen / 1000 gallons

5.7

Manure Application Method

Irrigation

Ammonia Loss During Application

27.5 %

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 / 1000 gallons

5.08

Application Rate Based on

Gallons/Acre

Nitrogen

24,554.8

LMFA 900.803 m) (8)

Phosphorus

12,900.0

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 l)

At Nitrogen Rate P1 Buildup Equals

6.2

of Apps at N rate to reach 300 P1

48

Target Application Rate Per Acre

24,554.8

Gallons

Nitrogen Rate

Target Application Rate Entire Field

337,629

Gallons

Nitrogen Phosphorus Potassium

125	118	192
173	118	192
0	56	151

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	12	2013	50% of 0.95 /1000 gal
Third Year Following Application	6	2014	25% of 0.95 /1000 gal
Fourth Year Following Application	3	2015	12.5% of 0.95 /1000 gal

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 34

Field Name 34

Field Acres 88.19

Application Acres 88.19

Crop Year 2012

Crop Corn Grain

Yield Goal 144

Planned Application Acres 88.19

Nitrogen

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

1.20
173

0.43
62

0.28
40

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 2009

0

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

2010

6

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

2011

0

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

Total Nitrogen Credits

46

LMFA 900.803 m) (7)

Nitrogen

Phosphorus

Potassium

Crop Needs after Credits

127

62

40

LMFA 900.803 m) (6)

Sample Results From: 6/12 & 9/3/08

If Book: Source MWPS 18

Manure Source: Liquid Manure Average

9.5

4.8

7.8

Plant Ammonia Nitrogen / 1000 gallons

5.7

Manure Application Method

Irrigation

Ammonia Loss During Application

27.5 %

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 / 1000 gallons

5.08

Application Rate Based on

Gallons/Acre

Nitrogen

24,948.4

LMFA 900.803 m) (8)

Phosphorus

12,900.0

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m)

At Nitrogen Rate P1 Buildup Equals

6.4

of Apps at N rate to reach 300 P1

47

Target Application Rate Per Acre

24,948.4

Gallons

Nitrogen Rate

Target Application Rate Entire Field

2,200,195

Gallons

Nitrogen

Phosphorus

Potassium

Available Manure Nutrients Applied

127

120

195

Available Nutrients from all sources

173

120

195

Over (Under) application of nutrients

0

58

154

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year

Nitrogen Credit/Acre

Crop Year

Mineralization Rate

Second Year Following Application

12

2013

50% of 0.95 /1000 gal

Third Year Following Application

6

2014

25% of 0.95 /1000 gal

Fourth Year Following Application

3

2015

12.5% of 0.95 /1000 gal

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID: 52182

Field # 35 Field Name 35 Field Acres 77.21 Application Acres 68.99

Crop Year 2012 Crop Corn Grain Yield Goal 143 Planned Application Acres 68.99

Nitrogen	Phosphorus	Potassium
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N	P ₂ O ₅	K ₂ O
1.20	0.43	0.28
172	61	40

LMFA 900.803 m) (6)

Crop Removal per bushel
Crop Removal(needs) /acre

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 2009
 2010
 2011

0
0
0

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

40

LMFA 900.803 m) (7)

Nitrogen	Phosphorus	Potassium
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132	61	40
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LMFA 900.803 m) (6)

Crop Needs after Credits

Sample Results From: 6/12 & 9/3/08

If Book: Source MWPS 18

Manure Source: Liquid Manure Average

9.5	4.8	7.8
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Plant Ammonia Nitrogen / 1000 gallons

5.7

Manure Application Method

Irrigation

Ammonia Loss During Application

27.5 %

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 / 1000 gallons

5.08

Application Rate Based on

Gallons/Acre

Nitrogen

25,892.8

LMFA 900.803 m) (8)

Phosphorus

12,810.4

Current Bray P1 Soil Test lbs/Acre

0

LMFA 900.803 m) (1)

At Nitrogen Rate P1 Buildup Equals

7.0

of Apps at N rate to reach 300 P1

43

Target Application Rate Per Acre

25,892.8

Gallons

Nitrogen Rate

Target Application Rate Entire Field

1,786,342

Gallons

Nitrogen	Phosphorus	Potassium
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Available Manure Nutrients Applied

132

124

202

Available Nutrients from all sources

172

124

202

Over (Under) application of nutrients

0

63

162

Nitrogen Mineralization Credit for Future Years

Mineralized Nitrogen / Crop Year	Nitrogen Credit/Acre	Crop Year	Mineralization Rate
Second Year Following Application	12	2013	50% of 0.95 /1000 gal
Third Year Following Application	6	2014	25% of 0.95 /1000 gal
Fourth Year Following Application	3	2015	12.5% of 0.95 /1000 gal

Waste Application Worksheet

Varel Dairy, Inc.

Operation ID:

Field #

Field Name

Field Acres

Application Acres

Crop Year

Crop

Yield Goal

Planned Application Acres

Nitrogen

Phosphorus

Potassium

N

P₂O₅

K₂O

Crop Removal per bushel
Crop Removal(needs) /acre

LMFA 900.803 m) (6)

Nitrogen Credits

Commercial Fertilizer

LMFA 900.803 m) (7)

Legume

LMFA 900.803 m) (7)

Previous Crop

Manure Applications 2009

Mineralization Rate = 12.5 %

LMFA 900.803 m) (7)

2010

Mineralization Rate = 25 %

LMFA 900.803 m) (7)

2011

Mineralization Rate = 50 %

LMFA 900.803 m) (7)

Total Nitrogen Credits

LMFA 900.803 m) (7)

Nitrogen

Phosphorus

Potassium

Crop Needs after Credits

LMFA 900.803 m) (6)

Sample Results From: 6/12 & 9/3/08

If Book: Source MWPS 18

Manure Source: Liquid Manure Average

Plant Ammonia Nitrogen / 1000 gallons

Manure Application Method

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 / 1000 gallons

Application Rate Based on

Gallons/Acre

Nitrogen

LMFA 900.803 m) (8)

Phosphorus

Current Bray P1 Soil Test lbs/Acre

LMFA 900.803 l)

At Nitrogen Rate P1 Buildup Equals

of Apps at N rate to reach 300 P1

Target Application Rate Per Acre

Gallons

Nitrogen Rate

Target Application Rate Entire Field

Gallons

Nitrogen

Phosphorus

Potassium

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

2013

50% of 0.95 /1000 gal

Third Year Following Application

2014

25% of 0.95 /1000 gal

Fourth Year Following Application

2015

12.5% of 0.95 /1000 gal