

Animal Inventory

Barn # 6 Barn 6

Animal Type **Dairy - 1400#**
Animal Capacity **60**
Average Size **1400**
IDOA Animal Units **84**
NRCS Animal Units **84**

Barn # 7 Barn 7

Animal Type **Dairy - 1400#**
Animal Capacity **30**
Average Size **1400**
IDOA Animal Units **42**
NRCS Animal Units **42**

Barn # 8 Barn 8

Animal Type **Dairy - 1400#**
Animal Capacity **100**
Average Size **1400**
IDOA Animal Units **140**
NRCS Animal Units **140**

Barn # 9 Barn 9

Animal Type **Dairy - 1400#**
Animal Capacity **50**
Average Size **1400**
IDOA Animal Units **70**
NRCS Animal Units **70**

Barn # 10 Barn 10

Animal Type **Dairy - 150#**
Animal Capacity **75**
Average Size **150**
IDOA Animal Units **45**
NRCS Animal Units **11**

Animal Inventory

Barn # 11 Barn 11

<i>Animal Type</i>	Dairy - 150#
<i>Animal Capacity</i>	75
<i>Average Size</i>	150
<i>IDOA Animal Units</i>	45
<i>NRCS Animal Units</i>	11

Barn # 12 Barn 12

<i>Animal Type</i>	Dairy - 1400#
<i>Animal Capacity</i>	40
<i>Average Size</i>	1400
<i>IDOA Animal Units</i>	56
<i>NRCS Animal Units</i>	56

Barn # 13 Barn 13

<i>Animal Type</i>	Dairy - 250#
<i>Animal Capacity</i>	100
<i>Average Size</i>	250
<i>IDOA Animal Units</i>	60
<i>NRCS Animal Units</i>	25

Total IDOA Animal Units	1,354
--------------------------------	--------------

Total NRCS Animal Units	1,252
--------------------------------	--------------

Annual Waste Volume and Nutrient Content - Total Operation

Westridge Dairy

Animal Type	Inventory	Daily Volume day/space	Total Daily Volume	Total Annual Volume	Nutrient Content lbs/day/space			Annual Nutrients Produced		
					N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
Dairy - 150#	150	13	1,950	711,750	0.0640	0.030	0.050	3,504	1,643	2,738
Dairy - 250#	100	22	2,200	803,000	0.1060	0.040	0.090	3,869	1,460	3,285
Dairy - 1400#	860	120	103,200	37,668,000	0.5950	0.240	0.480	186,771	75,336	150,672
Total Inventory	1110		107,350	39,182,750				194,144	78,439	156,695

Source: MWPS
18 Table 2-1

Source: MWPS
18 Table 2-1

Annual Waste Volume and Nutrient Content - Operation Responsibility

Westridge Dairy

Animal Type	Inventory	Daily Volume day/space	Total Daily Volume	Total Annual Volume	Nutrient Content lbs/day/space			Annual Nutrients Produced		
					N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
Dairy - 150#	150	13	1,950	711,750	0.0640	0.030	0.050	3,504	1,643	2,738
Dairy - 250#	100	22	2,200	803,000	0.1060	0.040	0.090	3,869	1,460	3,285
Dairy - 1400#	860	120	103,200	37,668,000	0.5950	0.240	0.480	186,771	75,336	150,672
Total Inventory	1110		107,350	39,182,750				194,144	78,439	156,695

Source: MWPS
18 Table 2-1

Source: MWPS
18 Table 2-1

Total Facility Nitrogen - Operation Responsibility

Westridge Dairy

Barn # 3	Barn 3	Barn # 4	Barn 4
Waste Source	Dairy - 1400#	Waste Source	Dairy - 1400#
Animal Spaces	120.00	Animal Spaces	120.00
Annual Manure Volume Gallons or Lbs	5,256,000	Annual Manure Volume Gallons or Lbs	5,256,000
Total N per Animal Space	0.5950	Total N per Animal Space	0.5950
Total N Annually from Source - Pounds	26,061	Total N Annually from Source - Pounds	26,061
Ammonium % of Total N	44.44	Ammonium % of Total N	44.44
N Pounds Annually	14,479	N Pounds Annually	14,479
N loss during Storage and Handling	11,582 Pounds	N loss during Storage and Handling	11,582 Pounds
N loss pounds annually (storage)	30 %	N loss pounds annually (storage)	30 %
N loss during Land Application	-3,474 Pounds	N loss during Land Application	-3,474 Pounds
N loss pounds annually (application)	3 %	N loss pounds annually (application)	3 %
	-243 Pounds		-243 Pounds
Organic N mineralization factor Year 1	2.5%	Organic N mineralization factor Year 1	2.5%
Organic N Mineralized Year 1	3,620 Pounds	Organic N Mineralized Year 1	3,620 Pounds
Plant Available N Year 1	3,620 Pounds	Plant Available N Year 1	3,620 Pounds
Total Plant available N Year 1	11,484 Pounds	Total Plant available N Year 1	11,484 Pounds
Organic N Mineralized Year 2	1,810 Pounds	Organic N Mineralized Year 2	1,810 Pounds
Organic N Mineralized Year 3	905 Pounds	Organic N Mineralized Year 3	905 Pounds
Organic N Mineralized Year 4	452 Pounds	Organic N Mineralized Year 4	452 Pounds

Total Facility Nitrogen - Operation Responsibility

Westridge Dairy

	Barn # 9	Barn 9	Dairy - 1400#	Barn # 10	Barn 10	Dairy - 150#
Waste Source						
Animal Spaces		50.00				75.00
Annual Manure Volume Gallons or Lbs		2,190,000				355,875
Total N per Animal Space		0.5950	Source: MWPS - 18 Table 2-1			0.0640
Total N Annually from Source - Pounds		10,859				1,752
Ammonium % of Total N		44.44	Source: MWPS - 18 Table 10-6 and 7			44.44
N Pounds Annually		6,033	Organic			973
N loss during Storage and Handling		4,826	Inorganic			779
N loss pounds annually (storage)		27.5 %	Source: MWPS - 18 Table 10-1			30 %
N loss during Land Application		-1,327	Pounds			-234
N loss pounds annually (application)		3%	Source: MWPS - 18 Table 10-2			3%
		-105	Pounds			-16
Organic N mineralization factor Year 1		25%	Source: MWPS - 18 Table 10-5			25%
Organic N Mineralized Year 1		1,508	Pounds			243
Plant Available N Year 1		1,508	Pounds			243
Total Plant available N Year 1		4,902	Pounds			772
Organic N Mineralized Year 2		754	Pounds			122
Organic N Mineralized Year 3		377	Pounds			61
Organic N Mineralized Year 4		189	Pounds			30

Total Facility Nitrogen - Operation Responsibility

Westridge Dairy

	Barn # 11	Barn 12	Barn # 12	Barn 12	
Waste Source	Dairy - 150#	Dairy - 1400#	Waste Source		
Animal Spaces	75.00	40.00	Animal Spaces		
Annual Manure Volume Gallons or Lbs	355,875	1,752,000	Annual Manure Volume Gallons or Lbs		
Total N per Animal Space	0.0640	0.5950	Total N per Animal Space		Source: MWPS - 18 Table 2-1
Total N Annually from Source - Pounds	1,752	8,687	Total N Annually from Source - Pounds		
Ammonium % of Total N	44.44	44.44	Ammonium % of Total N		Source: MWPS - 18 Table 10-6 and 7
N Pounds Annually	973	4,826	N Pounds Annually		Organic Inorganic
N loss during Storage and Handling	30 %	27.5 %	N loss during Storage and Handling		Source: MWPS - 18 Table 10-1
N loss pounds annually (storage)	-234	-1,062	N loss pounds annually (storage)		Pounds
N loss during Land Application	3 %	3 %	N loss during Land Application		Source: MWPS - 18 Table 10-2
N loss pounds annually (application)	-16	-84	N loss pounds annually (application)		Pounds
Organic N mineralization factor Year 1	25%	25%	Organic N mineralization factor Year 1		Source: MWPS - 18 Table 10-5
Organic N Mineralized Year 1	243	1,207	Organic N Mineralized Year 1		Pounds
Plant Available N Year 1	243	1,207	Plant Available N Year 1		Pounds
Total Plant available N Year 1	772	3,922	Total Plant available N Year 1		Pounds
Organic N Mineralized Year 2	122	603	Organic N Mineralized Year 2		Pounds
Organic N Mineralized Year 3	61	302	Organic N Mineralized Year 3		Pounds
Organic N Mineralized Year 4	30	151	Organic N Mineralized Year 4		Pounds

Total Facility Nitrogen - Operation Responsibility

Westridge Dairy

Barn # 13	Barn 13		
Waste Source	Dairy - 250#		
Animal Spaces	100.00		
Annual Manure Volume Gallons or Lbs	803,000		
Total N per Animal Space	0.1060	Source: MWPS - 18 Table 2-1	
Total N Annually from Source - Pounds	3,869		
Ammonium % of Total N	44.44	Source: MWPS - 18 Table 10-5 and 7	
		Organic	Inorganic
N Pounds Annually	2,150	1,719	Pounds
N loss during Storage and Handling		27.5 %	Source: MWPS - 18 Table 10-1
N loss pounds annually (storage)		-473	Pounds
N loss during Land Application		3%	Source: MWPS - 18 Table 10-2
N loss pounds annually (application)		-37	Pounds
Organic N mineralization factor Year 1	25%		Source: MWPS - 18 Table 10-5
Organic N Mineralized Year 1	537		Pounds
Plant Available N Year 1	537	1,209	Pounds
Total Plant available N Year 1		1,747	Pounds
Organic N Mineralized Year 2	269		Pounds
Organic N Mineralized Year 3	134		Pounds
Organic N Mineralized Year 4	67		Pounds

Total Facility Nitrogen - Operation Responsibility

Westridge Dairy

Land Required to Dispose of Waste for Corn Grain Yield AVG

Avg Corn Grain Yield 132

Acres required for Application 543.00