

January 31, 2025

Washington Department of Ecology  
Water Quality Program  
Attn: CAFO Permit Administrator  
P.O. Box 47600  
Olympia, WA 98504-7600

Re: Western Valley Farms Dairy 2024 CAFO Annual Report  
Permit #: WAG 0-15020B

Enclosed is the 2024 CAFO Annual Report for Western Valley Farm, LLC. This report contains information regarding sampling and application data for the entire 2023 cropping season as defined from fall 2023 to fall 2024. Agrimanagement, Inc. was asked to help in developing a plan to keep records and to assist in constructing the CAFO annual report.

The following items are included in this annual report:

- Annual Report Form (including the signature page)
- Adaptive Management Table
- Nutrient Source Content List
- Field Land Application Information
- Field Specific Nutrient Budgets

The values given for generated manures under the operations information represent the whole year, as determined by dairy management, and as calculated from the current number of livestock on the property. All given values are before any expected losses, unless noted otherwise.

As reported under operations information, the amounts of exported solid manures represent the total exported off-site by the third-party composter as dry tons for the 2024 season. The dairy has an agreement with a third party who performs all composting operations. Most dried solids are used for bedding. Solids that have been stacked or composted include a drying period; therefore, there may be an overlap between years and a significant difference in weights between wet and dry tons.

Overall, crop yields were average to slightly below average in 2024. This is a result of a generally moderate summer and reduced water availability through the Roza Irrigation District.

In 2024, full season field specific nutrient budgets were constructed for all cropped fields.

The dairy collected manure samples at times that they applied to the fields, but in 2025 they plan to collect 3 samples for each source.

With no fields in the High or Very High-risk category, the dairy is planning to continue similar management for the 2025 cropping season. WVF Dairy will also continue to manage in a manner which results in maximizing production while minimizing residual nitrogen.

If any additional information is needed or if you have any questions, please contact Steve Boon.

Sincerely,

A handwritten signature in blue ink that reads "Scott Stephen". The signature is written in a cursive style with a horizontal line underlining the name.

Scott Stephen  
Soil Scientist, CCA, NRCS-TSP  
Agrimanagement, Inc.



**APPENDIX B: CAFO**  
**GENERAL PERMIT**  
**ANNUAL REPORT**  
**FORM**

Permit No. WAG-\_\_\_\_

Facility Name:

Facility County:

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Use this form to submit your annual report to Ecology. All facilities must submit a signed annual report each year on or before February 1st.

This report is for the activities conducted during crop year 20 \_\_\_\_

**Permittee Information**

Facility Name:

Responsible Person:

Email:

Phone Number:

**Operator Information**

Operator Name:

Email:

Phone Number:

**Facility Information**

***Provide the maximum number of each type of animal confined at the facility during the calendar year.***

Milking Cow:

Dry Cow:

Calf:

Feedlot Beef:

Chicken - Broiler:

Chicken - Layer:

Swine at least 55 pounds:

Swine smaller than 55 pounds:

Sheep and lambs:

Turkeys:

Ducks:

Other:

***How much manure, litter, process waste, process wastewater, and other organic by-products did your facility generate during the past year?***

Liquid Manure: Units:

Solid Manure: Units:

Poultry Litter: Units:

Process Wastewater: Units:

Digestate: Units:

Other Organic By-products: Units:

***How much manure, litter, process waste, process wastewater, and other organic by-products did your facility export during the past year?***

Liquid Manure: Units:

Solid Manure: Units:

Poultry Litter: Units:

Process Wastewater: Units:

Digestate: Units:

Other Organic By-products: Units:

***What is the total number of acres covered in your Manure Pollution Prevention Plan?***

***What is the total number of acres you applied nutrients to or are in control of for this reporting period?***

## Discharge Information

During the year, has manure, litter, process waste, or process wastewater discharged from your production area or land application fields? If you are covered by the Combined Permit, do not include discharges of agricultural stormwater here.

NO

YES.

If YES, provide a summary of the approximate date, time, volume and duration of the discharge(s). Summarize your response to the discharge(s) on a separate sheet of paper and attach it with your annual report.

## Nutrient Source Content Analysis

Report the results of your manure, litter, and process wastewater analyses as required in special conditions S4.I and S5.B. Results must be reported “as received” or “wet weight basis.” Print additional copies of this page if you have more nutrient sources than space provided.

Nutrient Source Name <sup>26</sup>	Sample Collection Date	Nitrate plus Nitrite-N (NO <sub>3</sub> -N + NO <sub>2</sub> -N) concentration	Ammonia-N (NH <sub>3</sub> -N) concentration	Units for Nitrogen	Total Phosphorus concentration	Units for Phosphorus

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<sup>26</sup> As documented in your Manure Pollution Prevention Plan

## Field Application Information

Fill out this page for each of the fields you applied manure nutrients to fields you control.

Field ID:

Field size, acres:

1<sup>st</sup> Crop Grown:

1<sup>st</sup> Crop Yield, include units:

2<sup>nd</sup> Crop Grown:

2<sup>nd</sup> Crop Yield, include units:

### Field Soil Sample Analysis

Sample Depth	Date sample collected	Nitrate plus Nitrite-N (NO <sub>3</sub> -N + NO <sub>2</sub> -N) concentration	Ammonia-N (NH <sub>3</sub> -N) concentration	Units for nitrogen concentrations	Unit conversion factor for nitrogen <sup>27</sup>	Phosphorus (P <sub>2</sub> O <sub>5</sub> ) as P concentration <sup>28</sup>	Units for Phosphorus	Unit conversion factor for phosphorus <sup>29</sup>	Organic matter content, as percent <sup>30</sup>
0-12 inches									
13-24 inches									
25-36 inches									
0-12 inches									
13-24 inches									
25-36 inches									

<sup>27</sup> When reporting pounds per acre confirm the conversion factor used by the laboratory. Typically between 3.2 to 4.0 pounds per acre per 1 ppm nitrate-N.

<sup>28</sup> Soil Phosphorus analysis required every three years.

<sup>29</sup> When reporting pounds per acre confirm the conversion factor used by the laboratory.

<sup>30</sup> Organic Matter analysis required every three years.

### Nutrient Sources Applied to Field

Fill out this page for each of the fields you applied manure nutrients to fields you control. List all sources of nutrients including commercial fertilizer that were applied to this field.

Field ID:

Field Size:

Date of Application	Nutrient source name <sup>31</sup>	Total amount of nutrients applied	Units of nutrients applied	Total amount of nitrogen applied	Units of nitrogen applied
Annual Total					

### Adaptive Management Risk Level

If the post-harvest soil nitrate test results in a field risk level of high or very high, document the reasons for the result. High risk is soil nitrate concentrations above 31 ppm or 111 pounds per acre. Very high risk is soil nitrate concentrations above 45 ppm or 165 pounds per acre.

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<sup>31</sup> Nutrient Source Name must match the source reported in the Nutrient Source Content Analysis section.

## Field Nutrient Budgets

Attach the final field-specific nutrient budgets prepared for each field that received manure nutrients. I have included my field-specific nutrient budgets for the year 20\_\_\_\_.

## Certification

A person who has signature authority must sign the Application. Signature authority is defined in General Condition 14 as:

- a. In the case of corporations, by a responsible corporate officer.
- b. In the case of a partnership, by a general partner of a partnership.
- c. In the case of sole proprietorship, by the proprietor.

In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

*"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Printed Name:

Date:

Signature:

## Paper Submittal Instructions

Once the information in above sections is complete and the form is signed by the Legally Responsible Party, mail the form and attachments to:

**Washington Department of Ecology**

**Water Quality Program**

**Attn: CAFO Permit Administrator**

**PO Box 47600**

**Olympia, WA 98504-7600**

Keep a copy of the completed form and attached documents for your records.

## Questions

If you need assistance when filling out this report, please contact your CAFO permit inspector at the Washington Department of Agriculture.



If you're unable to reach your permit inspector, contact the CAFO permit administrator at (360) 407-6600 or [cafopermit@ecy.wa.gov](mailto:cafopermit@ecy.wa.gov).

TABLE 3: Adaptive Management Actions      Western Valley Farms      2024					
Field Risk Level	Field	Nitrate at 2'	Required Actions	Required Actions based upon Trends	Comments
Low Fall Soil Test Nitrate Range <ul style="list-style-type: none"> <li>Less than 15 ppm</li> <li>Less than 55 lbs/acre</li> </ul>					
Medium Fall Soil Test Nitrate Range <ul style="list-style-type: none"> <li>15-30 ppm</li> <li>55-110 lbs/acre</li> </ul>	Field 04	28.0	Review budgets		
	Field 05	21.0	Review trends		
	Field 06	23.0			
	Field 07	15.0			
High Fall Soil Test Nitrate Range <ul style="list-style-type: none"> <li>31-45 ppm</li> <li>111-165 lbs/acre</li> </ul>	Field 1, 2, 3	32.0	Document reasons Adjust application timing Stop app after peak uptake Collect 3 <sup>rd</sup> foot sample	Reduce application Hire a Professional	
Very High Fall Soil Test Nitrate Range <ul style="list-style-type: none"> <li>More than 45 ppm</li> <li>More than 165 lbs/acre</li> </ul>					

Nutrient Source Content Analysis  
Western Valley Farms  
2024

Nutrient Source Name	Report Number	Sample Date	NO3 ppm	NH4 ppm	Organic N ppm	P ppm
Post LWR	M24-01010	09/24/24	77	898	1,137	214
Lagoon 1	182683	03/05/24	1	885	872	147
Lagoon 1	152132	10/24/24	5	84	361	130
Comments: WVF does not use solid manure on its fields; only liquid as needed. Additional samples will be collected in 2025						

Note: While this data represents the measured nutrient concentrations as analyzed, it does not represent the available nutrient levels, as applied.

Field Land Application Information - Western Valley Farms

Field ID:	Field 1, 2, 3		Acres:	100
Crop Year:	2024	2024	Comments: No Manure was applied in 2024; No spring soil data was collected	
Crops Grown:	Alfalfa			
Crop Yield:	7.48			
Units:	tons/ac	tons/ac		

Field Soil Sample Nutrient Analysis

Date: Depth 1' Depth 2' Depth 3'	NO3 as N		NH4 as N		P	OM
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(%)
	Spring	Fall	Spring	Fall	Fall	Fall
		10/14/2024		10/14/2024	10/14/2024	10/14/2024
		29.0		5.2	219	2.7
		32.0		3.0		

Nutrient Source Applied to Field

	Date of Application	Source Name	Report Number	Amount Applied	Units	Total Nitrogen Applied	Units of Nitrogen applied
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Annual Total:						0.0	lbs/ac

Adaptive Management Risk Level:	High	Fall 2024
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## Field Land Application Information - Western Valley Farms

Field ID:	Field 04		Acres:	160
Crop Year:	2024	2024	Comments: Soil samples were collected as a 2 foot composite, with 1st and 2nd foot mixed together. Therefore, 1 ft and 2 ft values are reported as the same.	
Crops Grown:	Triticale	Silage Corn		
Crop Yield:	3.4	26		
Units:	tons/ac	tons/ac		

### Field Soil Sample Nutrient Analysis

	NO3 as N		NH4 as N		P	OM
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(%)
	Spring	Fall	Spring	Fall	Fall	Fall
	Date:	2/26/2024	12/22/2024	2/26/2024	12/22/2024	12/22/2024
Depth 1'	34.0	28.0	6.7	2.3	82	1.5
Depth 2'	34.0	28.0	6.7	2.3	82	1.5
Depth 3'						

### Nutrient Source Applied to Field

	Date of Application	Source Name	Report Number	Amount Applied	Units	Total Nitrogen Applied	Units of Nitrogen applied
1	3/11/2024	Lagoon 1	182683	1,125,000	gallons	48.4	lbs/ac
2	3/25/2024	Lagoon 1	182683	1,125,000	gallons	48.4	lbs/ac
3	4/8/2024	Lagoon 1	182683	1,125,000	gallons	48.4	lbs/ac
4	6/24/2024	Lagoon 1	182683	1,125,000	gallons	48.4	lbs/ac
5	7/10/2024	Lagoon 1	152132	540,000	gallons	12.7	lbs/ac
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Annual Total:						206.2	lbs/ac

Adaptive Management Risk Level: Medium Fall 2024

## Field Land Application Information - Western Valley Farms

Field ID:	Field 05		Acres:	87
Crop Year:	2024	2024	Comments: Soil samples were collected as a 2 foot composite, with 1st and 2nd foot mixed together. Therefore, 1 ft and 2 ft values are reported as the same.	
Crops Grown:	Triticale	Silage Corn		
Crop Yield:	4.19	32.0		
Units:	tons/ac	tons/ac		

### Field Soil Sample Nutrient Analysis

	NO3 as N		NH4 as N		P	OM
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(%)
	Spring	Fall	Spring	Fall	Fall	Fall
	2/26/2024	12/22/2024	2/26/2024	12/22/2024	12/22/2024	12/22/2024
Date:	2/26/2024	12/22/2024	2/26/2024	12/22/2024	12/22/2024	12/22/2024
Depth 1'	18.0	21.0	8.2	2.9	24	1.7
Depth 2'	18.0	21.0	8.2	2.9	24	1.7
Depth 3'						

### Nutrient Source Applied to Field

	Date of Application	Source Name	Report Number	Amount Applied	Units	Total Nitrogen Applied	Units of Nitrogen applied
1	3/15/2024	Lagoon 1	182683	780,000	gallons	61.7	lbs/ac
2	3/22/2024	Lagoon 1	182683	780,000	gallons	61.7	lbs/ac
3	4/1/2024	Lagoon 1	182683	780,000	gallons	61.7	lbs/ac
4	6/25/2024	Lagoon 1	182683	780,000	gallons	61.7	lbs/ac
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Annual Total:						246.7	lbs/ac

Adaptive Management Risk Level: Medium Fall 2024

## Field Land Application Information - Western Valley Farms

Field ID:	Field 06		Acres:	114
Crop Year:	2024	2024	Comments: Soil samples were collected as a 2 foot composite, with 1st and 2nd foot mixed together. Therefore, 1 ft and 2 ft values are reported as the same.	
Crops Grown:	Silage Corn			
Crop Yield:	33.0			
Units:	tons/ac	tons/ac		

### Field Soil Sample Nutrient Analysis

	NO3 as N		NH4 as N		P	OM
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(%)
	Spring	Fall	Spring	Fall	Fall	Fall
	Date:					
Depth 1'	2/26/2024	12/22/2024	2/26/2024	12/22/2024	12/22/2024	12/22/2024
Depth 2'	21.0	23.0	6.7	2.5	84	1.6
Depth 3'	21.0	23.0	6.7	2.5	84	1.6

### Nutrient Source Applied to Field

	Date of Application	Source Name	Report Number	Amount Applied	Units	Total Nitrogen Applied	Units of Nitrogen applied
1	3/11/2024	Lagoon 1	182683	858,000	gallons	51.8	lbs/ac
2	3/18/2024	Lagoon 1	182683	858,000	gallons	51.8	lbs/ac
3	3/22/2024	Lagoon 1	182683	858,000	gallons	51.8	lbs/ac
4	6/26/2024	Lagoon 1	182683	858,000	gallons	51.8	lbs/ac
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Annual Total:						207.1	lbs/ac

Adaptive Management Risk Level: Medium Fall 2024

## Field Land Application Information - Western Valley Farms

Field ID:	Field 07		Acres:	53
Crop Year:	2024	2024	Comments: Soil samples were collected as a 2 foot composite, with 1st and 2nd foot mixed together. Therefore, 1 ft and 2 ft values are reported as the same.	
Crops Grown:	Silage Corn			
Crop Yield:	31.0			
Units:	tons/ac	tons/ac		

### Field Soil Sample Nutrient Analysis

Date:	NO3 as N		NH4 as N		P	OM
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(%)
	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Fall</u>	<u>Fall</u>
	2/26/2024	12/22/2024	2/26/2024	12/22/2024	12/22/2024	12/22/2024
	Depth 1'	9.0	15.0	6.3	6.5	122
Depth 2'	9.0	15.0	6.3	6.5	122	2.3
Depth 3'						

### Nutrient Source Applied to Field

	Date of Application	Source Name	Report Number	Amount Applied	Units	Total Nitrogen Applied	Units of Nitrogen applied
1	3/12/2024	Lagoon 1	182683	420,000	gallons	54.5	lbs/ac
2	3/19/2024	Lagoon 1	182683	420,000	gallons	54.5	lbs/ac
3	4/6/2024	Lagoon 1	182683	420,000	gallons	54.5	lbs/ac
4	6/27/2024	Lagoon 1	182683	420,000	gallons	54.5	lbs/ac
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Annual Total:						218.1	lbs/ac

Adaptive Management Risk Level: Medium Fall 2024



**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 1, 2, 3	Acres:	100
Field Cropping:	Alfalfa	Crop Year:	2024
Budget Date:	Fall 2023		

**2) Crop Information, Crop Nutrient Requirements, pounds per acre:**

Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Alfalfa	7	10/15/2023	Multiple	387	91
2						
3						
					387	91

**Comment:** Full season budget

**3) Field Nutrients Available, pounds per acre**

	Available (lbs)	
	N (lbs)	P (ppm)
Residual nitrates (3')	205	
Residual ammonium (3') (NH <sub>4</sub> )	14	
Mineralization (past manure)	5	
Mineralization (organic matter)	57	
N used to consume past crop residue	-25	
N released from past crop residue	0	
N that may not be accessible	-50	
Nutrient from other sources	0	
Measured Phos (as ppm)		190
Total Available	206	190

**Comment:**

**4) Estimated Net Requirement, pounds per acre**

N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
181	0

**Comment:**

<b>5) Adaptive Management</b>	<b>Risk Level:</b> Medium	<b>Fall Year:</b> 2023
<b>Expected Action:</b>	Review budget and trends	

**Double, Winter, Perennial Crop Need (S4.K.4)**

	N (lbs)
<b>Winter Crop Requirement</b>	
Residual nitrates (3')	
Residual ammonium (3') (NH <sub>4</sub> )	
Winter Mineralization (past manure)	
Winter Mineralization (organic matter)	
Crop Residue Adjustment	
N that may not be accessible	
N from other sources	
Winter N Available	0
<b>Land Application Needed</b>	0

**Comment:**

Additional winter nutrients will not be needed for new planted alfalfa

**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 04	Acres:	160
Field Cropping:	Triticale - Silage Corn	Crop Year:	2024
Budget Date:	Fall 2023		

**2) Crop Information, Crop Nutrient Requirements, pounds per acre:**

Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Triticale	3.5	10/15/2023	5/1/2024	175	70
2	Silage Corn	28	5/15/2024	10/1/2024	258	87
3						
					433	157

Comment: Full season budget

**3) Field Nutrients Available, pounds per acre**

	Available (lbs)	
	N (lbs)	P (ppm)
Residual nitrates (3')	221	
Residual ammonium (3') (NH <sub>4</sub> )	26	
Mineralization (past manure)	5	
Mineralization (organic matter)	51	
N used to consume past crop residue	-30	
N released from past crop residue	0	
N that may not be accessible	-35	
Nutrient from other sources	0	
Measured Phos (as ppm)		112
Total Available	238	112

Comment:

**4) Estimated Net Requirement, pounds per acre**

N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
195	0

Comment:

<b>5) Adaptive Management</b>	<b>Risk Level:</b> Medium	<b>Fall Year:</b> 2023
<b>Expected Action:</b>	Review budget and trends	

Double, Winter, Perennial Crop Need (S4.K.4)	N (lbs)	<b>Comment:</b> No winter land application is needed for this field
<b>Winter Crop Requirement</b>	175	
Residual nitrates (3')	221	
Residual ammonium (3') (NH <sub>4</sub> )	26	
Winter Mineralization (past manure)	0	
Winter Mineralization (organic matter)	13	
Crop Residue Adjustment	-20	
N that may not be accessible	-65	
N from other sources	0	
Winter N Available	175	
<b>Land Application Needed</b>	0	

**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 04	Acres:	160
Field Cropping:	Trititcale - Silage Corn	Crop Year:	2024
Budget Date:	Spring 2024		

2) Crop Information, Crop Nutrient Requirements, pounds per acre:						
Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Silage Corn	28	5/15/2024	10/1/2024	258	87
2						
3						
					258	87

**Comment:** Updated Spring Budget

<b>3) Field Nutrients Available, pounds per acre</b>			Available (lbs)	
			N (lbs)	P (ppm)
	Residual nitrates (3')		112	
	Residual ammonium (3') (NH <sub>4</sub> )		21	
	Mineralization (past manure)		5	
	Mineralization (organic matter)		38	
	N used to consume past crop residue		-20	
	N released from past crop residue		0	
	N that may not be accessible		-30	
	Nutrient from other sources		0	
	Measured Phos (as ppm)			112
	Total Available		126	112

**Comment:**

<b>4) Estimated Net Requirement, pounds per acre</b>			N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
			132	0

**Comment:**

<b>5) Adaptive Management</b>		<b>Risk Level:</b> Medium	<b>Fall Year:</b> 2023
<b>Expected Action:</b>		Review budget and trends	

**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 05	Acres:	87
Field Cropping:	Triticale - Silage Corn	Crop Year:	2024
Budget Date:	Fall 2023		

**2) Crop Information, Crop Nutrient Requirements, pounds per acre:**

Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Triticale	4	10/15/2023	5/1/2024	200	80
2	Silage Corn	30	5/15/2024	10/1/2024	276	93
3						
					476	173

Comment: Full season budget

**3) Field Nutrients Available, pounds per acre**

	Available (lbs)	
	N (lbs)	P (ppm)
Residual nitrates (3')	175	
Residual ammonium (3') (NH <sub>4</sub> )	26	
Mineralization (past manure)	5	
Mineralization (organic matter)	48	
N used to consume past crop residue	-30	
N released from past crop residue	0	
N that may not be accessible	-60	
Nutrient from other sources	0	
Measured Phos (as ppm)		112
Total Available	164	112

Comment:

**4) Estimated Net Requirement, pounds per acre**

N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
312	0

Comment:

<b>5) Adaptive Management</b>	<b>Risk Level:</b> Medium	<b>Fall Year:</b> 2023
<b>Expected Action:</b>	Review budget and trends	

<b>Double, Winter, Perennial Crop Need (S4.K.4)</b>	<b>N (lbs)</b>	<b>Comment:</b> Winter land application may be needed to meet yield expectations.
<b>Winter Crop Requirement</b>	200	
Residual nitrates (3')	175	
Residual ammonium (3') (NH <sub>4</sub> )	26	
Winter Mineralization (past manure)	0	
Winter Mineralization (organic matter)	12	
Crop Residue Adjustment	-20	
N that may not be accessible	-60	
N from other sources	0	
Winter N Available	133	
<b>Land Application Needed</b>	67	

**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 05	Acres:	87
Field Cropping:	Triticale - Silage Corn	Crop Year:	2024
Budget Date:	Spring 2024		

**2) Crop Information, Crop Nutrient Requirements, pounds per acre:**

Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Silage Corn	30	5/15/2024	10/1/2024	276	93
2						
3						
					276	93

**Comment:** Updated Spring Budget

<b>3) Field Nutrients Available, pounds per acre</b>		Available (lbs)	
		N (lbs)	P (ppm)
	Residual nitrates (3')	59	
	Residual ammonium (3') (NH <sub>4</sub> )	26	
	Mineralization (past manure)	5	
	Mineralization (organic matter)	36	
	N used to consume past crop residue	-20	
	N released from past crop residue	0	
	N that may not be accessible	-30	
	Nutrient from other sources	0	
	Measured Phos (as ppm)		112
	Total Available	76	112

**Comment:**

<b>4) Estimated Net Requirement, pounds per acre</b>		N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
		200	0

**Comment:**

<b>5) Adaptive Management</b>		<b>Risk Level:</b> Medium	<b>Fall Year:</b> 2023
<b>Expected Action:</b> Review budget and trends			

**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 06	Acres:	114
Field Cropping:	Silage Corn	Crop Year:	2024
Budget Date:	Fall 2023		

2) Crop Information, Crop Nutrient Requirements, pounds per acre:						
Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Silage Corn	32	4/20/2024	10/1/2024	294	99
2						
3						
					294	99

**Comment:** Full season budget

<b>3) Field Nutrients Available, pounds per acre</b>			Available (lbs)	
			N (lbs)	P (ppm)
Residual nitrates (3')			69	
Residual ammonium (3') (NH <sub>4</sub> )			21	
Mineralization (past manure)			0	
Mineralization (organic matter)			63	
N used to consume past crop residue			-15	
N released from past crop residue			0	
N that may not be accessible			-20	
Nutrient from other sources			0	
Measured Phos (as ppm)				142
Total Available			118	142

**Comment:**

<b>4) Estimated Net Requirement, pounds per acre</b>		N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
		176	0

**Comment:**

<b>5) Adaptive Management</b>	<b>Risk Level:</b> Medium	<b>Fall Year:</b> 2023
<b>Expected Action:</b> Review budget and trends		

<b>Double, Winter, Perennial Crop Need (S4.K.4)</b>	N (lbs)	<b>Comment:</b> No winter crop to be grown in Fall 2023
<b>Winter Crop Requirement</b>		
Residual nitrates (3')		
Residual ammonium (3') (NH <sub>4</sub> )		
Winter Mineralization (past manure)		
Winter Mineralization (organic matter)		
Crop Residue Adjustment		
N that may not be accessible		
N from other sources		
Winter N Available	0	
<b>Land Application Needed</b>	0	

**Yearly Field Specific Nutrient Budget**  
**Concentrated Animal Feeding Operation (CAFO), General Permit**

<b>1) Field Information</b>		<b>Western Valley Farms</b>	
Field ID:	Field 07	Acres:	53
Field Cropping:	Silage Corn	Crop Year:	2024
Budget Date:	Fall 2023		

**2) Crop Information, Crop Nutrient Requirements, pounds per acre:**

Rotation:	Crop	Yield Estimation (tons/acre)	Est. Plant Date	Est. Harvest Date	Requirements (lbs)	
					N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
1	Silage Corn	32	4/20/2024	10/1/2024	294	99
2						
3						
					294	99

Comment: Full season budget

<b>3) Field Nutrients Available, pounds per acre</b>		Available (lbs)	
		N (lbs)	P (ppm)
	Residual nitrates (3')	30	
	Residual ammonium (3') (NH <sub>4</sub> )	20	
	Mineralization (past manure)	0	
	Mineralization (organic matter)	54	
	N used to consume past crop residue	-15	
	N released from past crop residue	0	
	N that may not be accessible	-10	
	Nutrient from other sources	0	
	Measured Phos (as ppm)		104
	Total Available	79	104

Comment:

<b>4) Estimated Net Requirement, pounds per acre</b>		N (lbs)	P as P <sub>2</sub> O <sub>5</sub>
		215	0

Comment:

<b>5) Adaptive Management</b>	<b>Risk Level:</b> Low	<b>Fall Year:</b> 2023
<b>Expected Action:</b> No change		

<b>Double, Winter, Perennial Crop Need (S4.K.4)</b>	N (lbs)	<b>Comment:</b> No winter crop to be grown in Fall 2023
<b>Winter Crop Requirement</b>		
Residual nitrates (3')		
Residual ammonium (3') (NH <sub>4</sub> )		
Winter Mineralization (past manure)		
Winter Mineralization (organic matter)		
Crop Residue Adjustment		
N that may not be accessible		
N from other sources		
Winter N Available	0	
<b>Land Application Needed</b>	0	