## **NRCS Nutrient Management (590) Plan**

Act 38-equivalent (content & format)

## **Implementation Requirements**

for Comprehensive Nutrient Management Plan (CNMP)

For Crop Year(s)

2023 2024 2025

### **Prepared For**

Operator's Name, Mailing Address, Telephone Number(s)

Kurtland Farms, LLC

4351 Main Street

Elverson, PA 19520

(610) 223-8062

Operation's Location Address (if different than above)

#### **Prepared By**

Nutrient Management Planner Name, Address, Phone Number(s)

Eric C Risser
1557 Ridge Road

Elizabethtown, PA 17022

(717) 278-4238
2697-NMC

#### **Date of Plan Submission**

2/10/2023



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## **Nutrient Management Plan Summary**

Total acres reported in NMP Summary:	329.6	Crop Year(s) 2023
Whole Farm Note:		

If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.

Fall manure applications require at least 25% cover unless the crop management unit is planted to a cover crop in time to allow for appropriate growth to control runoff until the next growing season, or the manure is injected or mechanically incorporated within 5 days using minimal soil disturbance techniques consistent with no-till farming practices.

**Operation Acres:** 

Total Acres Available For Nutrient Application Under Operator's Control: Owned: 133.5 Rented: 196.1

Animal Equivalent Units: 612.76 Animal Equivalent Units Per Acre: 1.86

CMU/Field ID Acres									arter/Otl tilizer (II	-		pplemer tilizer (lk		ient Bala (lb/A) <sup>2</sup>		
CMU/Field ID	CMU/Field ID Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate		N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O
1	54.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				32			0	-59	107
1	54.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-108	224
2	11.8	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				32			0	-79	57
2	11.8	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-158	124

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID Acres								arter/Ot tilizer (l			ıpplemer rtilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
3	20	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	107
3	20	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	224
4	10.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	57
4	10.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	124
5	18.7	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-59	107
5	18.7	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-108	224
6	19	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	-43
6	19	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	-86
7	14.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	57

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID Acres		Manuro Applicati							arter/Ot tilizer (I			ıpplemei rtilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
7	14.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-158	124
8	12.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				32			0	-79	97
8	12.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-158	204
30	1.4	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000	gal/A				105			0	-77	146
30	1.4	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000	gal/A				155			0	-154	302
P1	2	Established Pasture (without legume)	Field P1 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				105			0	-17	-31
P2	10	Established Pasture (without legume)	Field P2 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				105			0	-17	-31
P3	6	Established Pasture (without legume)	Field P3 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				74			0	-62	-134
P4	6	Established Pasture (without legume)	Field P4 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				74			0	-62	-134
CF5	3	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

	CMU/Field ID Acres		Manuro Application Applicat			on Planned Manure			arter/Otl tilizer (II			pplemer tilizer (II		Nuti	rient Bal (lb/A)²	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
CF5	3	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
CF6	7.5	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269
CF6	7.5	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
CF7	7	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				47			0	-77	176
CF7	7	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				74			0	-154	372
CF9	3	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269
CF9	3	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
<b>S</b> 1	12	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000	gal/A				47			0	-77	146
S1	12	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				74			0	-154	302

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID Acres				Diamed Manua				arter/Ot tilizer (l			pplemer tilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
S2-S4	24	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal/A				47			0	-77	106
S2-S4	24	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				74			0	-154	222
<b>S</b> 5	4.5	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				50			0	-54	22
S5	4.5	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				72			0	-78	44
S6	4	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal/A				105			0	-37	136
S6	4	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal/A				155			0	-44	272
S7	9.5	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal/A				100			0	-54	22
S7	9.5	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal/A				142			0	-78	44
C2	7	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal/A				105			0	-37	-124

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID Acres									arter/Oth			pplemer tilizer (II		Nuti	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Man Rate <sup>1</sup>	ure	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
C2	7	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				155			0	-44	-248
HW3	3	Established Mixed Grasses	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	5000 gal	//A									
HW3	3	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	5000 gal	/A				222			0	44	192
M1	2.9	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal	//A				70			0	-54	-28
M1	2.9	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				102			0	-68	-46
M2	7.1	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal	//A				57			0	-54	-28
M2	7.1	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				102			0	-68	-46
Orman1	17.5	Corn for Grain (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				176			0	68	-18
Orman2	16.4	Corn for Grain (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				176			0	48	-48
Orman3	9.3	Corn for Grain (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				181			0	88	47
Orman4	3	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	//A				251			0	118	237

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

									arter/Otl tilizer (II	-		ıpplemen rtilizer (lb		Nutr	ient Bala (lb/A)²	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	4	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Orman5	2	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000	gal/A				251			0	118	237

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	Crop Years	2023
CMU/Field ID	Notes	
1		
1		
2		
2		
3		
3		
4		
4		
5		
5		
6		
6		
7		
7		
8		
8		
30		
30		
P1	The grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours per day for 35 days,from Jun. to Oc	ct.
P2	Grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours per day for 115 days,from Jun. to Oct. dry cows from the Dry Cows (Spring) animal group,12 hours per day for 60 days,from Apr. to May.	18
P3	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours per day for 75 days,from Apr. to Oct. dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.	80
P4	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours per day for 75 days,from Apr. to Oct. dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.	80
CF5		
CF5		
CF6		
CF6		
CF7		
CF7		
CF9		
CF9		
S1		

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID	Notes
S1	
S2-S4	
S2-S4	
S5	
S5	
S6	
S6	
S7	
S7	
C2	
C2	
HW3	
HW3	
M1	
M1	
M2	
M2	
Orman1	
Orman2	
Orman3	
Orman4	
Orman5	

See rate calibration table (Nutrient Management Plan Summary Notes).
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## **Nutrient Management Plan Summary**

Total acres reported in NMP Summary:	329.6	<b>Crop Year(s)</b> 2024
Whole Farm Note:		

If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.

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**Operation Acres:** 

Total Acres: 353 Total Acres Available For Nutrient Application Under Operator's Control: Owned: 133.5 Rented: 196.1

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	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O	
1	54.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-59	107
1	54.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-108	224
2	11.8	Small Grain Silage		Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	57
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								arter/Ot tilizer (l			ıpplemer rtilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
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8	12.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-158	204
30	1.4	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000	gal/A				105			0	-77	146
30	1.4	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000	gal/A				155			0	-154	302
P1	2	Established Pasture (without legume)	Field P1 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				105			0	-17	-31
P2	10	Established Pasture (without legume)	Field P2 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				105			0	-17	-31
P3	6	Established Pasture (without legume)	Field P3 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				74			0	-62	-134
P4	6	Established Pasture (without legume)	Field P4 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				74			0	-62	-134
CF5	3	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

									arter/Otl tilizer (II			pplemer tilizer (II		Nuti	rient Bal (lb/A)²	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
CF5	3	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
CF6	7.5	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269
CF6	7.5	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
CF7	7	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				47			0	-77	176
CF7	7	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				74			0	-154	372
CF9	3	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269
CF9	3	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
<b>S</b> 1	12	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000	gal/A				47			0	-77	146
S1	12	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				74			0	-154	302

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								arter/Ot tilizer (l			pplemer tilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
S2-S4	24	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal/A				47			0	-77	106
S2-S4	24	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				74			0	-154	222
<b>S</b> 5	4.5	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				50			0	-54	22
S5	4.5	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				72			0	-78	44
S6	4	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal/A				105			0	-37	136
S6	4	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal/A				155			0	-44	272
S7	9.5	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal/A				100			0	-54	22
S7	9.5	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal/A				142			0	-78	44
C2	7	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal/A				105			0	-37	-124

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

									arter/Oth			pplemer tilizer (II		Nuti	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Man Rate <sup>1</sup>	ure	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
C2	7	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				155			0	-44	-248
HW3	3	Established Mixed Grasses	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	5000 gal	//A									
HW3	3	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	5000 gal	/A				222			0	44	192
M1	2.9	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal	//A				70			0	-54	-28
M1	2.9	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				102			0	-68	-46
M2	7.1	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal	//A				57			0	-54	-28
M2	7.1	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				102			0	-68	-46
Orman1	17.5	Corn for Grain (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				176			0	68	-18
Orman2	16.4	Corn for Grain (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				176			0	48	-48
Orman3	9.3	Corn for Grain (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				181			0	88	47
Orman4	3	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	//A				251			0	118	237

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

									arter/Oth tilizer (II	-		ipplemen rtilizer (It		Nutr	ient Bala (lb/A)²	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	4	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Orman5	2	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000	gal/A				251			0	118	237

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

	Crop Years	s 2024
CMU/Field ID	Notes	
1		
1		
2		
2		
3		
3		
4		
4		
5		
5		
6		
6		
7		
7		
8		
8		
30		
30		
P1	The grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours per day for 35 days,from Jun. to Oc	ct.
P2	Grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours per day for 115 days,from Jun. to Oct. dry cows from the Dry Cows (Spring) animal group,12 hours per day for 60 days,from Apr. to May.	18
P3	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours per day for 75 days,from Apr. to Oct. dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.	80
P4	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours per day for 75 days,from Apr. to Oct. dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.	80
CF5		
CF5		
CF6		
CF6		
CF7		
CF7		
CF9		
CF9		
S1		

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID	Notes
S1	
S2-S4	
S2-S4	
S5	
S5	
S6	
S6	
S7	
S7	
C2	
C2	
HW3	
HW3	
M1	
M1	
M2	
M2	
Orman1	
Orman2	
Orman3	
Orman4	
Orman5	

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

## **Nutrient Management Plan Summary**

Total acres reported in NMP Summary:	329.6	Crop Year(s) 2025
Whole Farm Note:		

If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.

Fall manure applications require at least 25% cover unless the crop management unit is planted to a cover crop in time to allow for appropriate growth to control runoff until the next growing season, or the manure is injected or mechanically incorporated within 5 days using minimal soil disturbance techniques consistent with no-till farming practices.

**Operation Acres:** 

Total Acres available For Nutrient Application Under Operator's Control: Owned: 133.5 Rented: 196.1

Animal Equivalent Units: 612.76 Animal Equivalent Units Per Acre: 1.86

								arter/Ot rtilizer (I	-		ıpplemer rtilizer (II		Nutr	rient Bal (lb/A) <sup>2</sup>	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O
1	54.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-59	107
1	54.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-108	224
2	11.8	Small Grain Silage		Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	57
2	11.8	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	124

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								arter/Ot tilizer (l			ıpplemer rtilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
3	20	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	107
3	20	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	224
4	10.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	57
4	10.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	124
5	18.7	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-59	107
5	18.7	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-108	224
6	19	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	-43
6	19	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				44			0	-158	-86
7	14.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				32			0	-79	57

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

									arter/Ot tilizer (I			ıpplemei rtilizer (II		Nut	rient Bal (lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
7	14.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-158	124
8	12.5	Small Grain Silage	Robot Barn Lagoon (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				32			0	-79	97
8	12.5	Corn for Silage (No- till)	Robot Barn Lagoon (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				44			0	-158	204
30	1.4	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000	gal/A				105			0	-77	146
30	1.4	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000	gal/A				155			0	-154	302
P1	2	Established Pasture (without legume)	Field P1 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				105			0	-17	-31
P2	10	Established Pasture (without legume)	Field P2 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				105			0	-17	-31
P3	6	Established Pasture (without legume)	Field P3 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				74			0	-62	-134
P4	6	Established Pasture (without legume)	Field P4 - Grazing Calculator	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes				74			0	-62	-134
CF5	3	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								Starter/Other Fertilizer (lb/A)			Supplemental Fertilizer (lb/A)			Nutrient Balance (lb/A) <sup>2</sup>		
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
CF5	3	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
CF6	7.5	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269
CF6	7.5	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
CF7	7	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000	gal/A				47			0	-77	176
CF7	7	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				74			0	-154	372
CF9	3	Small Grain Silage	Pen Pack	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	10	tons/A				112			0	-29	269
CF9	3	Corn for Silage (No- till)	Pen Pack	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	10	tons/A				159			0	-58	558
<b>S</b> 1	12	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000	gal/A				47			0	-77	146
S1	12	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000	gal/A				74			0	-154	302

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								arter/Ot tilizer (l		Supplemental Fertilizer (lb/A)			Nutrient Balanc (lb/A) <sup>2</sup>		
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
S2-S4	24	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal/A				47			0	-77	106
S2-S4	24	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				74			0	-154	222
<b>S</b> 5	4.5	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0- 2 days	9000 gal/A				50			0	-54	22
S5	4.5	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated the same day	9000 gal/A				72			0	-78	44
S6	4	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal/A				105			0	-37	136
S6	4	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal/A				155			0	-44	272
S7	9.5	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal/A				100			0	-54	22
S7	9.5	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal/A				142			0	-78	44
C2	7	Small Grain Silage	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal/A				105			0	-37	-124

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								Starter/Other Fertilizer (lb/A)			Supplemental Fertilizer (lb/A)			Nuti	lance	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Man Rate <sup>1</sup>	ure	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
C2	7	Corn for Silage (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				155			0	-44	-248
HW3	3	Established Mixed Grasses	Tiestall Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	5000 gal	//A									
HW3	3	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	5000 gal	/A				222			0	44	192
M1	2.9	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by	9000 gal	//A				70			0	-54	-28
M1	2.9	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				102			0	-68	-46
M2	7.1	Small Grain Silage	Heifer Pit (Fall)	Early Fall: 1.2-12	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days	9000 gal	//A				57			0	-54	-28
M2	7.1	Corn for Silage (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	9000 gal	/A				102			0	-68	-46
Orman1	17.5	Corn for Grain (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				176			0	68	-18
Orman2	16.4	Corn for Grain (No- till)	Heifer Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				176			0	48	-48
Orman3	9.3	Corn for Grain (No- till)	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	/A				181			0	88	47
Orman4	3	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000 gal	//A				251			0	118	237

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

									arter/Oth tilizer (II	-		ipplemen rtilizer (It		Nutr	ient Bala (lb/A)²	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	4	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Orman5	2	Established Mixed Grasses	Tiestall Pit (Spring)	Spring: 1.2-12	Spring 1.2-12: Incorporated after 7 days	6000	gal/A				251			0	118	237

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

	Crop Years	s 2025
CMU/Field ID	Notes	
1		
1		
2		
2		
3		
3		
4		
4		
5		
5		
6		
6		
7		
7		
8		
8		
30		
30		
P1	The grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours per day for 35 days,from Jun. to Oc	ct.
P2	Grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours per day for 115 days,from Jun. to Oct. dry cows from the Dry Cows (Spring) animal group,12 hours per day for 60 days,from Apr. to May.	18
P3	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours per day for 75 days,from Apr. to Oct. dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.	80
P4	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours per day for 75 days,from Apr. to Oct. dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.	80
CF5		
CF5		
CF6		
CF6		
CF7		
CF7		
CF9		
CF9		
S1		

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

CMU/Field ID	Notes
S1	
S2-S4	
S2-S4	
S5	
S5	
S6	
S6	
S7	
S7	
C2	
C2	
HW3	
HW3	
M1	
M1	
M2	
M2	
Orman1	
Orman2	
Orman3	
Orman4	
Orman5	

See rate calibration table (Nutrient Management Plan Summary Notes).
 Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# **Manure Spreader Calibration Notes**

1				Crop Years 2023
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
6000 gal	Lauver Ag (1762-MH3)			
9000 gal	Lauver Ag (1762-MH3)			
9000 gal	PA Manure Pumping LLC	Dragline		
10 tons	New Holland 185		Case	540 PTO RPM, 6 mph

## **Additional Nutrient Management Plan Requirements**

#### **Manure Management and Stormwater BMP Implementation Summary**

Best Management Practice	NRCS Practice Code <sup>1</sup>	BMP Location	Implementation Season & Year
Heavy Use Area Protection	561	Heifer Facility	Summer 2026
Roofs and Covers	567	Heifer Facility	Summer 2026
Roof Runoff Structure	558	Heifer Facility	Summer 2026
Animal Trails and Walkways	575	Heifer Facilty	Summer 2026
Underground Outlet	620	Heifer Facility	Summer 2026
Per Jeff Overstreet-BCCD See Appendix 6			

<sup>1</sup> If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

#### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

N/A

#### **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

This operation is not a CAFO

### **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

N/A

## **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

N/A

### **Exported Manure Summary**

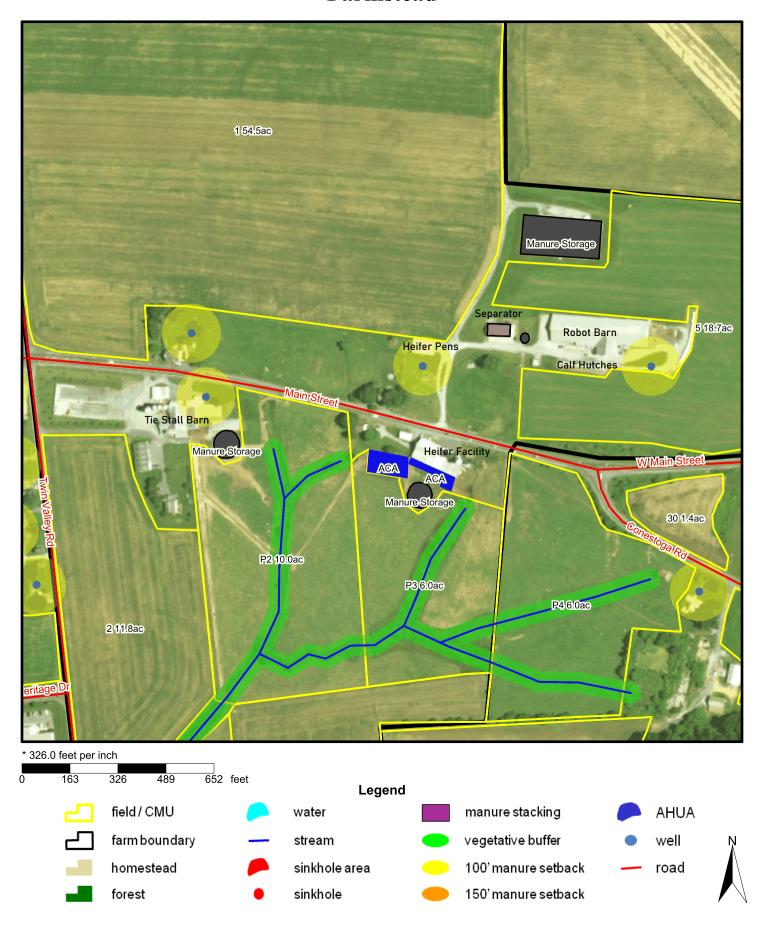
Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

There is not any exported manure in this plan.

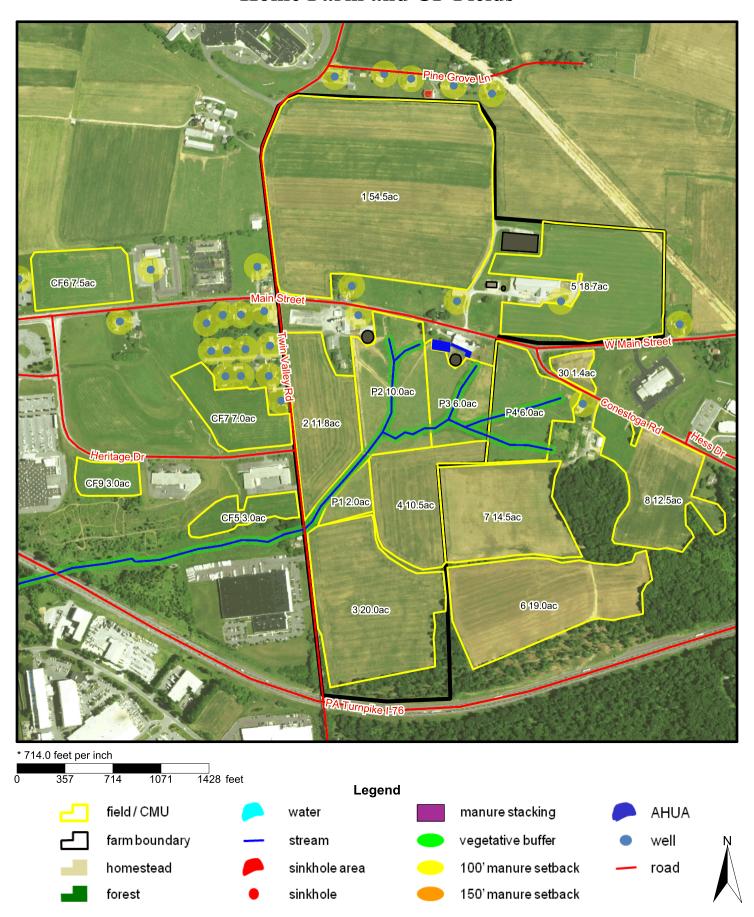
### **Operator Management Map**

Three types of maps are required for a CNMP 590 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.

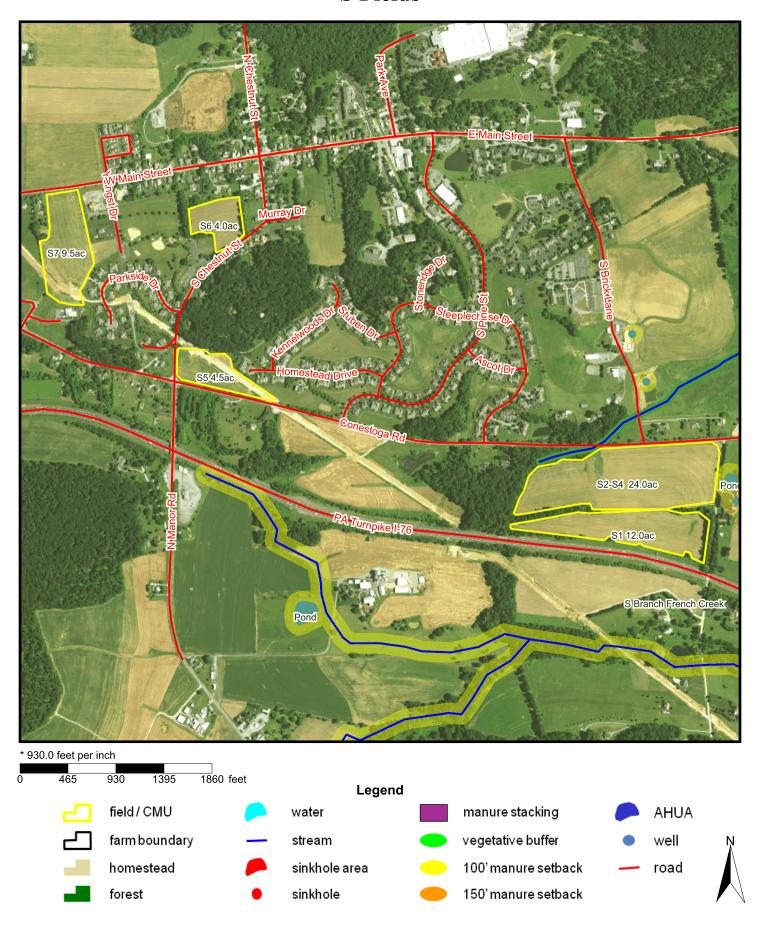
## **Farmstead**

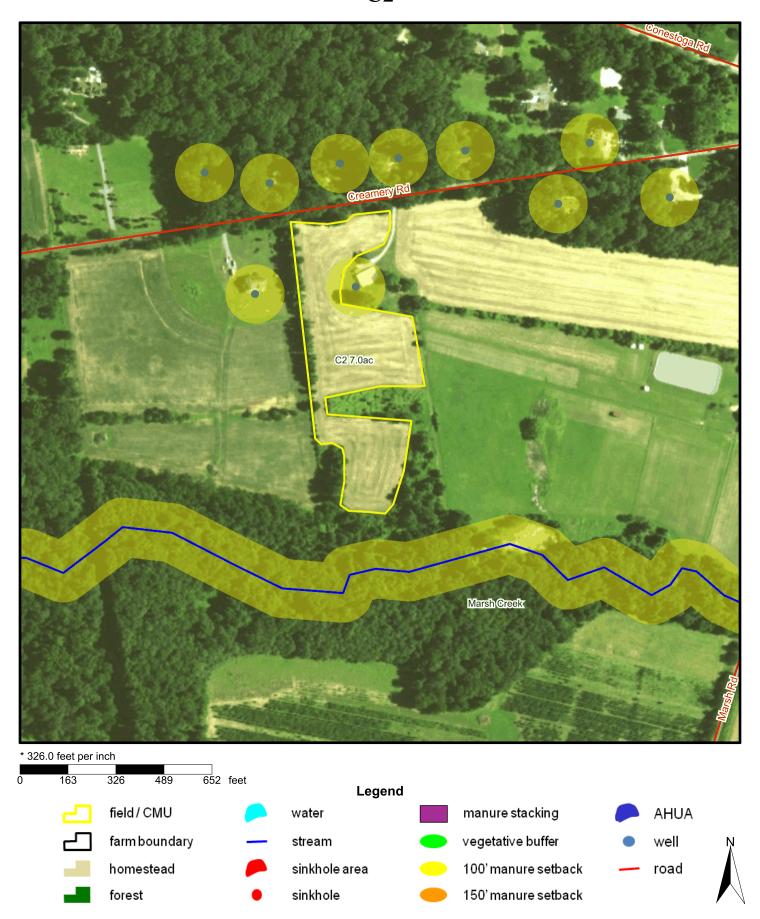


# **Home Farm and CF Fields**



## **S** Fields

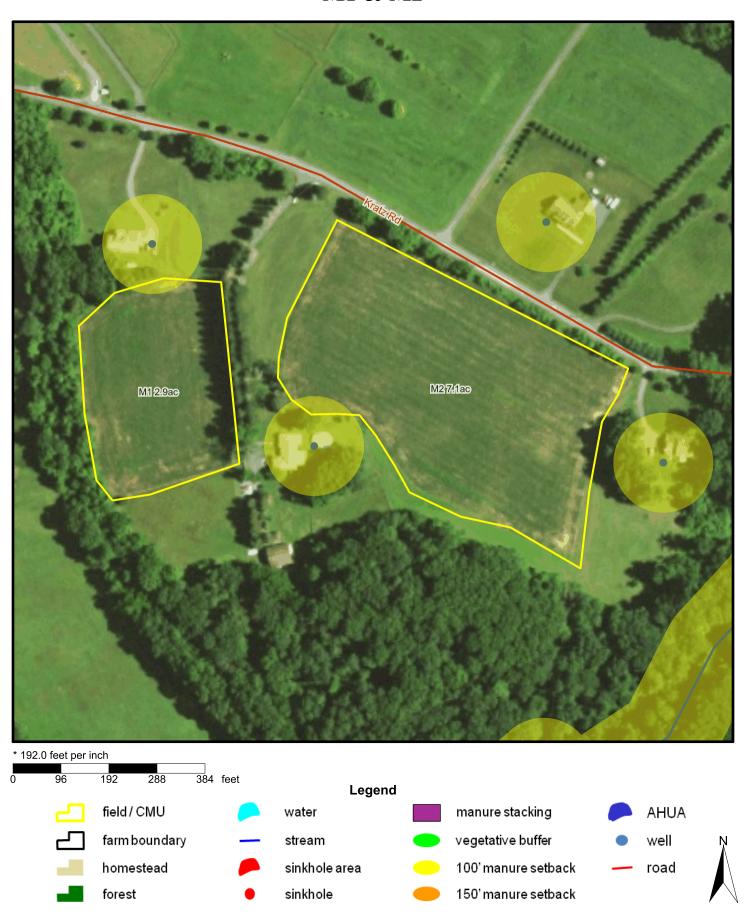




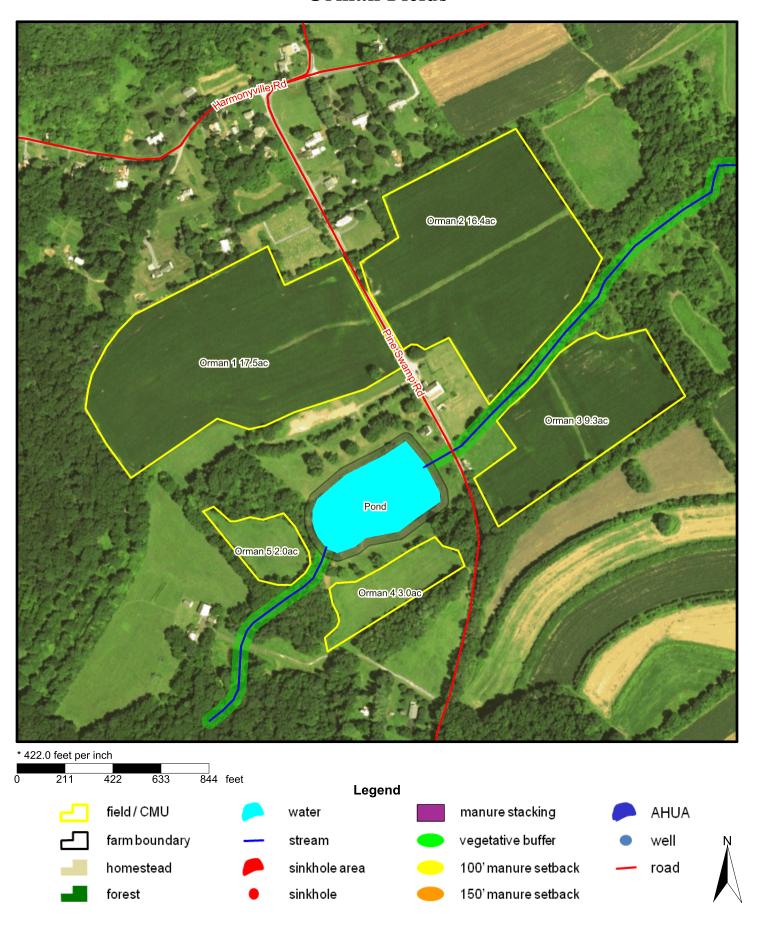
# Hopewell



# M1 & M2



# **Orman Fields**



# NRCS Nutrient Management (590) Record Keeping Checklist

## Comprehensive Nutrient Management Plans

The follow	ring records are required to be maintained on the operation:
	Manure Test Results - annually; manure analysis results for each manure group
	Soil Test Results - current within 3 years; current soil test results for each crop management unit
	Land Application of Nutrients - annually; location (ID) & number of acres, date of application, and application rate for each crop management unit
	Crop Yields - annually; approximate yield levels for each crop management unit
	<b>Uncollected Manure Information</b> - annually; number of animals, number of days, and average number of hours per day on each pasture unit
	Manure Export Sheets - (if applicable) completed manure export sheets for each importing operation (copy to importer copy retained on exporting operation; small quantity exclusion only requires name, amount of manure transferred and date)
	<b>Exported Manure Applied Under Exporter Direction</b> - (if applicable) annually; application location (ID and notation of observation of application setbacks), number of acres, date of application, application methods, and application rate
	<b>Exported Manure Through Broker - Broker Responsible</b> - (if applicable) annually; broker is responsible for application records; application location (ID and notation of observation of application setbacks), number of acres, date of application, application methods, and application rate and provide copies to the importing operations
	Alternative Manure Utilization Other Than Manure Export - (if applicable) annually; amount and use of manure

# **Field Crop Record**

NRCS Nutrient Management (590) requires an annual accounting of the application rate of nutrients and the resulting crop for each crop management unit.

					Manure & F	ertilizer Ap	oplication Infor	mation (lb/a, to	n/a or gal/	a)	
	Crop In	ormation		Application	1		Application	12		Application	13
CMU/ Field ID	Crop	Yield	Date	Manure or Fertilizer Type	Application Rate	Date	Manure or Fertilizer Type	Application Rate	Date	Manure or Fertilizer Type	Application Rate

# **Manure Group Application Record**

NRCS Nutrient Management (590) requires the following land application information be recorded annually: application location, number of acres, date of application, and application rate for each crop management unit.

Manure Group	Date		Manure Source/Location
Spreader ID <sup>1</sup>	Spreader Calibrated Rates		
Temperature <sup>1</sup>	Wind Speed & Direction <sup>1</sup>		Weather Conditions
Applicator <sup>1</sup>		Notes	

<sup>&</sup>lt;sup>1</sup> Optional information not required by 590.

	Field Information			Manure Applica	tion Information	
CMU/Field ID	Field Acres	Acres Covered	Application Rate	Application Method	Days to Incorporation (if < 7 days)	Total Amount Applied

	Field Information			Manure Applica	tion Information	
CMU/Field ID	Field Acres	Acres Covered	Application Rate	Application Method	Days to Incorporation (if < 7 days)	Total Amount Applied

# **Manure Sampling Record**

NRCS Nutrient Management (590) requires annual sampling and analysis of each manure group listed in the nutrient management plan. To fulfill keeping requirements a file of all manure analysis reports must be maintained. In addition, the following table can be used (optional) to summarize the manure analysis results for easier reference and use.

Manure Group	Lab	Date Sampled	Total Nitrogen (N)	Ammonium N (NH <sub>4</sub> -N)	Total Phosphate (P <sub>2</sub> O₅)	Total Potash (K₂O)	Percent Solids	P Source Coefficient
				Note lb/ton o			Value	

## **Pasture Uncollected Manure Record**

NRCS Nutrient Management (590) requires that the number of animals, number of days and average number of hours per day be recorded for each pasture unit listed in the nutrient management plan.

Pasture ID	Period Dates	Animal Type	Number of Animals	Average Weight	Number of Days	Average Number of Hours Per Day

## **Soil Testing Record**

NRCS Nutrient Management (590) requires that soil tests for each crop management unit or field be current within the last three years. To fulfill Act 38 record keeping requirements a file of all soil test reports must be maintained. In addition, the following table can be used (optional) to summarize the soil test results for easier reference and use.

CMU/Field	Lab	Date	;	Soil Test Levels	<b>3</b>	Soil Test Re (If not i	port Levels <sup>1</sup> n ppm)
ID	Lab	Sampled	рН	ppm Mehlich-3 P	ppm K	Phosphorus (lbs P or lbs P <sub>2</sub> O <sub>5</sub> )	Potassium (lbs K or lbs K <sub>2</sub> O)

<sup>&</sup>lt;sup>1</sup> Complete only if laboratory did not report phosphorus and potassium levels in ppm. Indicate units used on the soil test report.

#### Appendix 1

## **CNMP 590 Nutrient Management Plan Agreement & Responsibilities**

NRCS program participants must develop and provide a copy of an NRCS-approved Comprehensive Nutrient Management Plan (CNMP) including a 590 nutrient management plan before NRCS provides technical or financial assistance involving manure or wastewater handling, storage and treatment and nutrient management that involves the application of manure and wastewater associated with the operation.

#### **Plan Implementation Requirements**

This nutrient management plan meets the NRCS 590 Nutrient Management conservation practice standard. Implementation of this plan is required to maintain compliance with your conservation plan. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions and record keeping obligations.

The following records are required to be maintained:

- 1. Annual crop yields by field
- 2. Manure and fertilizer application rates, locations and date of application
- 3. Soil test reports (testing required every 3 years per crop management unit)
- 4. Manure test reports (testing required once a year for each manure group)
- 5. Number of animals on pasture, number of days on pasture, and hours per day on pasture
- 6. Manure imports, exports, and internal transfers

Develop a revised CNMP 590 when significant changes in nutrient management occur on operation. Significant changes in nutrient management include implementation of practices that affect the planned time, rate, form, and placement of nutrients, such as a new waste storage facility.

#### **Specialist Signature**

I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the Nutrient Management (code 590) Conservation Practice Standard; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator.

**Specialist Signature** 

Date: 2/10/2023

Sui Chim

NRCS CNMP 590 Version 8.0 - October 2021

#### **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me.

Operator Signature June S. Mass
Operator Title Owner
Date 2/13/2023

# Appendix 2 Operation Information

#### **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management (contributing animal groups, collection, storage and handling procedures); composting (including mortality) management.

Kurtland Farms is a Dairy operation located in Elverson, PA. The dairy facilities are located in Berks County but some of the owned and rented cropland is also in Chester County. The farm consists of 285 lactating Holstein Cows, 30 dry cows, 95 heifers (1-2yrs old) and 145 calves (0-1yr old). Total crop land included in the 590 NMP is 305.6 acres, pasture land is 24 acres and farmstead is 18.6 acres. Crop rotation consists of small grain silage and corn silage double crop on most of the acres with some permanent grass hay and some corn grain. The manure groups consist of: Fall/Spring liquid dairy from the robot barn stored in the HDPE lined lagoon; Fall/Spring liquid dairy from the tie stall facility in the circular concrete tank; Fall/Spring liquid heifer from the heifer facility in the circular concrete tank. Pen pack from the calf hutches and small heifer barn is storage in the stack shed. Manure from the Robot facility is collected in a 30' x 10' deep concrete tank and then is pumped to a separator. The separated liquid is pumped to the covered HDPE lagoon and the solids are being stored in the stack shed. The solids are recycled as bedding for the animals in all of the facilities. 80 bred heifers and 18 dry cows have access to pasture for 7 months out of the year (April-October). They are fed and watered in the barn but are free to use the pasture during these months. All pastures have stream bank fencing. A disposal service is used for animal mortalities.

#### County(s)

Berks, Chester

## Name of Receiving Stream(s)/Watershed(s)

Marsh Creek(HQ-TSF), South Branch French Creek(WWF), UNT to Conestoga River(WWF), UNT to Hay Creek(CWF), UNT to Pine Creek (EV)

## **Notation of Special Protection Waters**

CWF, WWF, HQ-TSF, EV

## **Operation Acres**

Total Acres: 353

**Total Acres Available for Nutrient Application Under Operator's Control** 

Owned: 133.5

Rented: 196.1

### Names & Addresses of Owners of Rented or Leased Land and/or Facilities

Marle and David Stoltzfus, 26 East Main Street, PO Box 20, Elverson, PA 19520

Curt Malizzi, 142 Kratz Road, Birdsboro, PA 19508

Twin Valley School District, 4851 North Twin Valley Road, Elverson, PA 19520

Rod Merrill, 171 Creamery Road, Elverson, PA 19520

Joe Sullivan, 108 East Main Street, Elverson, PA 19520

Kevin Orman, 233 Pine Swamp Road, Elverson, PA 19520

#### **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

Covered HDPE Lined Lagoon—250'x120'x15' deep = 1,570,000 gallons of storage with 1' freeboard and is not exposed to precipitation. Wash water from the Robot facility is transferred to this storage and is included in the records in Appendix 3.

Round Concrete Tank—93'x8' deep = 380,900 gallons of storage with 1' freeboard and is exposed to precipitation. This has a contributing runoff area of approx. 3000 SF. Wash water from the tie stall facility is transferred to this storage and is included in the records in Appendix 3.

Round Concrete Tank—85'x8'deep = 297,000 gallons of storage with 1' freeboard and is exposed to precipitation. This has a contributing runoff area of approx. 6500 SF.

Roofed Concrete Solids Storage— $80' \times 40' \times 6'$  sides = 19,200 cu ft of storage and is not exposed to precipitation. The manure from the robot barn is separated and the manure solids are stored here. They are then used for bedding in the dairy and heifer facilities. A small amount of penpack manure from the calf hutches and small heifer barn is also stored here.

Liquid storages are agitated prior to hauling and pumped to either a dragline spreading system or manure tankers for land application in the spring and fall. The facilities are emptied two times per year. Grab samples are collected during load out and are combined into one comprehensive sample for each manure storage.

#### Manure Application Equipment Capacity & Practical Application Rates

Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm.

The liquid manure is custom spread. The home farm and some adjacent land is spread with a dragline by PA Custom Haulers, LLC. They are capable of variable rates with 9000gal/ac being the most common. Other fields are hauled by tanker by Lauver Ag (1762-MH3) at either 5000 gal/ac 6000 gal/ac or 9000 gal/ac. The penpack is spread with a New Holland box spreader at 10 tons/acre. The swath area load method is used to calibrate the equipment.

Appendix 3 Manure Group Information Crop Yrs. 2023	Robot E	Barn Lagoon (Fall)	Robot Barn Lag	oon (Spring)	Tiesta	all Pit (Fall)	Tiestall	Pit (Spring)	Heife	er Pit (Fall)
Manure Report Date (note if averaging several reports)	5/17/2022		5/17/2022		5/17/2022		5/17/2023		5/17/2022	
Laboratory Name	Waypoint		Waypoint	<u> </u>	Waypoint		Waypoint		Waypoint	
Manure Type	Dairy		Dairy	_	Dairy		Dairy		Dairy	
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal		lb/1000 gal	_	lb/1000 gal		lb/1000 gal		lb/1000 gal	
Total Nitrogen (N) (lbs/ton or 1000 gal)	28.7		28.7	_	22.9		22.9		24	
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	13.6		13.6	_	12.8		12.8		11.1	
Total Organic N (lbs/ton or 1000 gal)	15.10		15.10	_	10.10		10.10		12.90	
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.8		8.8	_	8.6		8.6		10.4	
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	19.2		19.2	_	13.8		13.8		26.4	
Percent Solids	5.5		5.5		6		6		8	
PSC Value (analytical or book value)	0.8		0.8	_	0.8		0.8		0.8	
Percent Moisture	94.50		94.50		94.00		94.00		92.00	
Manure Group AEU's	179.36		178.38		79.42		78.98		39.27	
Description: Site & Season Applied	Lagoon	Fall	Lagoon	Spring	Tiestall Pit	Fall	Tiestall Pit	Spring	Heifer Pit	Fall
Inventory Method	Records		Records		Records		Records		Records	
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.
Manure Group Identification	Robot Barn Lagoon (Fall)		Robot Barn Lagoon (Spring)		Tiestall Pit (Fall)	Tiestall Pit (Fall) - uncollected	Tiestall Pit (Spring)	Tiestall Pit (Spring) - uncollected	Heifer Pit (Fall)	Heifer Pit (Fall) - uncollected
CALCULATED: Total Manure Collected Per Manure Group	0.0		0.0		0.0	49.9	0.0	20.0	0.0	176.2
Units	gallons		gallons		gallons	Tons	gallons	Tons	gallons	Tons
RECORDS: Total Manure Collected Per Manure Group	1,400,000.0		1,400,000.0		500,000.0		500,000.0		200,000.0	
Unit	Gallons		Gallons		Gallons		Gallons		Gallons	
	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	1,453,500.0	0.0	1,453,500.0	0.0	513,600.0	49.9	599,400.0	20.0	216,000.0	176.2
Units	Gallons		Gallons		Gallons	Tons	Gallons	Tons	Gallons	Tons
Manure Exported	0.0		0.0		0.0		0.0		0.0	
Units	gallons		gallons		gallons		gallons		gallons	
Manure Allocation Balance	-53,500.0	0.0	-53,500.0	0.0	-13,600.0	0.0	-99,400.0	0.0	-16,000.0	0.0
Units	Gallons		Gallons		Gallons	Tons	Gallons	Tons	Gallons	Tons
Manure Balance as a Percent of Total Manure Collected	-3.8%		-3.8%		-2.7%		-19.9%		-8.0%	
Total Rainfall and Runoff										

Appendix 3 Manure Group Information Crop Yrs. 2023	Robot Barn La	goon (Fall)	Robot Barn Lago	on (Spring)	Tiestall Pit	(Fall)	Tiestall Pit (	Spring)	Heifer Pit	(Fall)
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 1	Lactating Cows		Lactating Cows		Lactating Cows		Lactating Cows		Heifers (Fall)	Heifers (Fall) - uncollected
Animal Type	Holstein Lactating Cow		*User Entered* Holstein Heifer (13-22months)	Total Nitrogen (N) lbs/ton						
Animal Number	222		222		63		63		80	10.00
Animal Weight	1450 lbs		1450 lbs		1450 lbs		1450 lbs		979 lbs	Total Phosphate (P2O5) lbs/ton
Animal Group AUs	321.90 AUs		321.90 AUs		91.35 AUs		91.35 AUs		78.32 AUs	3.00
Animal Group AEUs	161.39 AEUs		160.51 AEUs		45.80 AEUs		45.55 AEUs		39.27 AEUs	Total Potash (K2O) lbs/ton
Daily Manure Production per AU	13.0 gal		13.0 gal		13.0 gal		13.0 gal		6.9 gal	7.00
Total Days Manure Produced	183 days		182 days		183 days		182 days		183 days	PSC Value
Total Manure Produced	Records		Records		Records		Records		Records	0.80
Days On Pasture	0 days		0 days		0 days		0 days		150 days	
Hours Per Day On Pasture	0 hrs		0 hrs		0 hrs		0 hrs		12 hrs	
Total Bedding	Records		Records		Records		Records		Records	
Total Washwater	Records		Records		Records		Records		Records	
CALCULATED - Total Uncollected Manure Per Animal Group									40,530.60 gal	176.22 - Tons
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records		Records	
Animal Group 2	Dry Cows		Dry Cows		Dry Cows (Fall)	Dry Cows (Fall) - uncollected	Dry Cows (Spring)	Dry Cows (Spring) - uncollected		
Animal Type	Holstein Dry Cow		Holstein Dry Cow		Holstein Dry Cow	Total Nitrogen (N) lbs/ton	Holstein Dry Cow	Total Nitrogen (N) lbs/ton		
Animal Number	12		12		18	9.00	18	9.00		
Animal Weight	1450 lbs		1450 lbs		1450 lbs	Total Phosphate (P2O5) lbs/ton	1450 lbs	Total Phosphate (P2O5) lbs/ton		
Animal Group AUs	17.40 AUs		17.40 AUs		26.10 AUs	3.00	26.10 AUs	3.00		
Animal Group AEUs	8.72 AEUs		8.68 AEUs		13.09 AEUs	Total Potash (K2O) lbs/ton	13.01 AEUs	Total Potash (K2O) lbs/ton		
Daily Manure Production per AU	6.0 gal		6.0 gal		6.0 gal	7.00	6.0 gal	7.00		
Total Days Manure Produced	183 days		182 days		183 days	PSC Value	182 days	PSC Value		
Total Manure Produced	Records		Records		Records	0.80	Records	0.80		
Days On Pasture	0 days		0 days		150 days		60 days			
Hours Per Day On Pasture	0 hrs		0 hrs		12 hrs		12 hrs		-	
Total Bedding	Records		Records		Records		Records			
Total Washwater	Records		Records		Records		Records			
CALCULATED - Total Uncollected Manure Per Animal Group					11,745.00 gal	49.92 - Tons	4,698.00 gal	19.97 - Tons		
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records			

Appendix 3 Manure Group Information Crop Yrs. 2023	Robot Barn La	goon (Fall)	Robot Barn Lago	on (Spring)	Tiestall Pit	t (Fall)	Tiestall Pit (	(Spring)	Heifer Pit	· Pit (Fall)	
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	
Animal Group 3	Bred Heifer		Bred Heifer		Heifer		Heifer				
Animal Type	*User Entered* Holstein Heifer (23-24months)		*User Entered* Holstein Heifer (23-24months)		*User Entered* Holstein Calf (6-12months)		*User Entered* Holstein Calf (6-12months)				
Animal Number	15		15		70		70				
Animal Weight	1229 lbs		1229 lbs		585 lbs		585 lbs				
Animal Group AUs	18.44 AUs	=	18.44 AUs		40.95 AUs	-	40.95 AUs	-		-	
Animal Group AEUs	9.24 AEUs		9.19 AEUs		20.53 AEUs	=	20.42 AEUs	=		=	
Daily Manure Production per AU	6.9 gal	-	6.9 gal		9.2 gal		9.2 gal	-			
Total Days Manure Produced	183 days		182 days		183 days		182 days				
Total Manure Produced	Records		Records		Records		Records				
Days On Pasture	0 days		0 days		0 days		0 days				
Hours Per Day On Pasture	0 hrs		0 hrs		0 hrs		0 hrs				
Total Bedding	Records		Records		Records		Records				
Total Washwater	Records		Records		Records		Records				
CALCULATED - Total Uncollected Manure Per Animal Group											
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records				

Appendix 3 Manure Group Information Crop Yrs. 2023	Heife	er Pit (Spring)		Pen	Pack	Field P1	Field P1 - Grazing Calculator Field P2 - Grazing Calculator		Field P3 - Graz	ing Calculator		
Manure Report Date (note if averaging several reports)	5/17/2022			7/5/2022		Uncollected B	ook		Uncollected Book	ς	Uncollected Book	
Laboratory Name	Waypoint	<del></del>		Waypoint	<u> </u>	PSU Agronomy	Guide	•	PSU Agronomy Gui	ide	PSU Agronomy Guide	_
Manure Type	Dairy			Dairy	<del>_</del>	Other		-	Other	<del></del>	Other	<del>_</del>
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal			lb/ton	_	lb/ton		•	lb/ton		lb/ton	_
Total Nitrogen (N) (lbs/ton or 1000 gal)	24			12.4		9		•	9		10	_
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	11.1			2.6	_	0		•	0		0	_
Total Organic N (lbs/ton or 1000 gal)	12.90			9.80	_	9.00		•	9.00		10.00	_
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	10.4			2.9	_	3		•	3		3	_
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	26.4			3.14		7		•	7		7	_
Percent Solids	8			37.4		0		•	0		0	_
PSC Value (analytical or book value)	0.8			0.8		0.8		•	0.8		0.8	_
Percent Moisture	92.00			62.60		100.00			100.00		100.00	
Manure Group AEU's	39.05			18.30		0.00			0.00		0.00	
Description: Site & Season Applied	Heifer Pit	Sprin	g	Compost Shed	Spring and Fall	Grazing		Grazing	Grazing	Grazing	Grazing	Grazing
Inventory Method	Records			Records		Records			Records		Records	
	Collected Calc.	Uncollected	d Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.		Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.
Manure Group Identification	Heifer Pit (Spring)	Heifer Pit (S uncolled		Pen Pack		Field P1 - Grazing Calculator			Field P2 - Grazing Calculator		Field P3 - Grazing Calculator	
CALCULATED: Total Manure Collected Per Manure Group	0.0	70.5		0.0		0.0			0.0		0.0	
Units	gallons	Tons	;	Tons		Tons			Tons		Tons	
RECORDS: Total Manure Collected Per Manure Group	250,000.0			200.0		11.6		11.6	58.2		123.4	
Unit	Gallons			Tons		Tons		•	Tons		Tons	
	Collected	Uncolled	cted	Collected	Uncollected	Collected		Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	419,400.0	70.5		270.0	0.0	11.6		0.0	58.2	0.0	123.4	0.0
Units	Gallons	Tons	1	Tons		Tons			Tons		Tons	
Manure Exported	0.0			0.0		0.0			0.0		0.0	
Units	gallons			tons								
Manure Allocation Balance Units	-169,400.0 Gallons	0.0 Tons		-70.0 Tons	0.0	0.0 Tons		0.0	0.0 Tons	0.0	0.0 Tons	0.0
Manure Balance as a Percent of Total Manure Collected	-67.8%	Tons	•	-35.0%		0.1%			0.1%		0.0%	
Total Rainfall and Runoff		<u> </u>		,								

Appendix 3 Manure Group Information Crop Yrs. 2023	Heifer Pit (\$	Spring)	Pen Pa	ack	Field P1 - Grazir	ng Calculator	Field P2 - Grazin	g Calculator	Field P3 - Grazir	ng Calculator
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 1	Heifers (Spring)	Heifers (Spring) - uncollected	Calves							
Animal Type	*User Entered* Holstein Heifer (13-22months)	Total Nitrogen (N) lbs/ton	*User Entered* Holstein Calf (3-5months)							
Animal Number	80	10.00	45							
Animal Weight	979 lbs	Total Phosphate (P2O5) lbs/ton	310 lbs							
Animal Group AUs	78.32 AUs	3.00	13.95 AUs			-				-
Animal Group AEUs	39.05 AEUs	Total Potash (K2O) lbs/ton	13.95 AEUs							
Daily Manure Production per AU	6.9 gal	7.00	80.0 lb							
Total Days Manure Produced	182 days	PSC Value	365 days							
Total Manure Produced	Records	0.80	Records							
Days On Pasture	60 days		0 days							
Hours Per Day On Pasture	12 hrs		0 hrs							
Total Bedding	Records		Records							
Total Washwater	Records		Records							
CALCULATED - Total Uncollected Manure Per Animal Group	16,212.24 gal	70.49 - Tons								
CALCULATED-Total Manure Collected Per Animal Group	Records		Records							
Animal Group 2			Calves							
Animal Type			*User Entered* Holstein Calf (0-2months)							-
Animal Number			30			-				-
Animal Weight			145 lbs							
Animal Group AUs			4.35 AUs							
Animal Group AEUs			4.35 AEUs							1
Daily Manure Production per AU			80.0 lb			]				]
Total Days Manure Produced			365 days			1				1
Total Manure Produced			Records							]
Days On Pasture			0 days							
Hours Per Day On Pasture			0 hrs							
Total Bedding			Records							]
Total Washwater			Records							]
CALCULATED - Total Uncollected Manure Per Animal Group										
CALCULATED-Total Manure Collected Per Animal Group			Records							

Appendix 3 Manure Group Information Crop Yrs. 2024	Robot E	Barn Lagoon (Fall)	Robot Barn Lag	oon (Spring)	Tiesta	all Pit (Fall)	Tiestall	Pit (Spring)	Heife	er Pit (Fall)
Manure Report Date (note if averaging several reports)	5/17/2022		5/17/2022		5/17/2022		5/17/2023		5/17/2022	
Laboratory Name	Waypoint		Waypoint	<u> </u>	Waypoint		Waypoint		Waypoint	
Manure Type	Dairy	<del></del>	Dairy	<del>_</del>	Dairy	<del></del>	Dairy		Dairy	<del></del>
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	l	lb/1000 gal	<del></del>	lb/1000 gal		lb/1000 gal		lb/1000 gal	
Total Nitrogen (N) (lbs/ton or 1000 gal)	28.7		28.7		22.9		22.9	<del></del>	24	
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	13.6		13.6	_	12.8		12.8		11.1	
Total Organic N (lbs/ton or 1000 gal)	15.10		15.10		10.10		10.10		12.90	
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.8		8.8		8.6		8.6		10.4	
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	19.2		19.2	_	13.8		13.8		26.4	
Percent Solids	5.5		5.5		6		6		8	
PSC Value (analytical or book value)	0.8		0.8	_	0.8		0.8		0.8	
Percent Moisture	94.50		94.50		94.00		94.00		92.00	
Manure Group AEU's	179.36		178.38		79.42		78.98		39.27	
Description: Site & Season Applied	Lagoon	Fall	Lagoon	Spring	Tiestall Pit	Fall	Tiestall Pit	Spring	Heifer Pit	Fall
Inventory Method	Records		Records		Records		Records		Records	
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.
Manure Group Identification	Robot Barn Lagoon (Fall)		Robot Barn Lagoon (Spring)		Tiestall Pit (Fall)	Tiestall Pit (Fall) - uncollected	Tiestall Pit (Spring)	Tiestall Pit (Spring) - uncollected	Heifer Pit (Fall)	Heifer Pit (Fall) - uncollected
CALCULATED: Total Manure Collected Per Manure Group	0.0		0.0		0.0	49.9	0.0	20.0	0.0	176.2
Units	gallons		gallons		gallons	Tons	gallons	Tons	gallons	Tons
RECORDS: Total Manure Collected Per Manure Group	1,400,000.0		1,400,000.0		500,000.0		500,000.0		200,000.0	
Unit	Gallons		Gallons		Gallons		Gallons		Gallons	
	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	1,453,500.0	0.0	1,453,500.0	0.0	513,600.0	49.9	599,400.0	20.0	216,000.0	176.2
Units	Gallons		Gallons		Gallons	Tons	Gallons	Tons	Gallons	Tons
Manure Exported	0.0		0.0		0.0		0.0		0.0	
Units	gallons		gallons		gallons		gallons		gallons	
Manure Allocation Balance	-53,500.0	0.0	-53,500.0	0.0	-13,600.0	0.0	-99,400.0	0.0	-16,000.0	0.0
Units	Gallons		Gallons		Gallons	Tons	Gallons	Tons	Gallons	Tons
Manure Balance as a Percent of Total Manure Collected	-3.8%		-3.8%		-2.7%		-19.9%		-8.0%	
Total Rainfall and Runoff										

Appendix 3 Manure Group Information Crop Yrs. 2024	Robot Barn La	goon (Fall)	Robot Barn Lagoo	on (Spring)	Tiestall Pit	(Fall)	Tiestall Pit (	Spring)	Heifer Pit	(Fall)
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 1	Lactating Cows		Lactating Cows		Lactating Cows		Lactating Cows		Heifers (Fall)	Heifers (Fall) - uncollected
Animal Type	Holstein Lactating Cow		Holstein Lactating Cow	-	Holstein Lactating Cow		Holstein Lactating Cow		*User Entered* Holstein Heifer (13-22months)	Total Nitrogen (N) lbs/ton
Animal Number	222		222	-	63		63		80	10.00
Animal Weight	1450 lbs		1450 lbs		1450 lbs		1450 lbs		979 lbs	Total Phosphate (P2O5) lbs/ton
Animal Group AUs	321.90 AUs		321.90 AUs	-	91.35 AUs		91.35 AUs		78.32 AUs	3.00
Animal Group AEUs	161.39 AEUs		160.51 AEUs	-	45.80 AEUs		45.55 AEUs		39.27 AEUs	Total Potash (K2O) lbs/ton
Daily Manure Production per AU	13.0 gal		13.0 gal		13.0 gal		13.0 gal		6.9 gal	7.00
Total Days Manure Produced	183 days		182 days		183 days		182 days		183 days	PSC Value
Total Manure Produced	Records		Records		Records		Records		Records	0.80
Days On Pasture	0 days		0 days		0 days		0 days		150 days	
Hours Per Day On Pasture	0 hrs		0 hrs		0 hrs		0 hrs		12 hrs	
Total Bedding	Records		Records		Records		Records		Records	
Total Washwater	Records		Records		Records		Records		Records	
CALCULATED - Total Uncollected Manure Per Animal Group									40,530.60 gal	176.22 - Tons
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records		Records	
Animal Group 2	Dry Cows		Dry Cows		Dry Cows (Fall)	Dry Cows (Fall) - uncollected	Dry Cows (Spring)	Dry Cows (Spring) - uncollected		
Animal Type	Holstein Dry Cow		Holstein Dry Cow		Holstein Dry Cow	Total Nitrogen (N) lbs/ton	Holstein Dry Cow	Total Nitrogen (N) lbs/ton		
Animal Number	12		12		18	9.00	18	9.00		
Animal Weight	1450 lbs		1450 lbs		1450 lbs	Total Phosphate (P2O5) lbs/ton	1450 lbs	Total Phosphate (P2O5) lbs/ton		
Animal Group AUs	17.40 AUs		17.40 AUs		26.10 AUs	3.00	26.10 AUs	3.00		
Animal Group AEUs	8.72 AEUs		8.68 AEUs		13.09 AEUs	Total Potash (K2O) lbs/ton	13.01 AEUs	Total Potash (K2O) lbs/ton		
Daily Manure Production per AU	6.0 gal		6.0 gal		6.0 gal	7.00	6.0 gal	7.00		
Total Days Manure Produced	183 days		182 days		183 days	PSC Value	182 days	PSC Value		
Total Manure Produced	Records		Records		Records	0.80	Records	0.80		
Days On Pasture	0 days		0 days		150 days		60 days			
Hours Per Day On Pasture	0 hrs		0 hrs		12 hrs		12 hrs		-	
Total Bedding	Records		Records		Records		Records			
Total Washwater	Records		Records		Records		Records			
CALCULATED - Total Uncollected Manure Per Animal Group					11,745.00 gal	49.92 - Tons	4,698.00 gal	19.97 - Tons		
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records			

Appendix 3 Manure Group Information Crop Yrs. 2024	Robot Barn La	goon (Fall)	Robot Barn Lago	on (Spring)	Tiestall Pi	t (Fall)	Tiestall Pit (	(Spring)	Heifer Pit	t (Fall)
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 3	Bred Heifer		Bred Heifer		Heifer		Heifer			
Animal Type	*User Entered* Holstein Heifer (23-24months)		*User Entered* Holstein Heifer (23-24months)		*User Entered* Holstein Calf (6-12months)		*User Entered* Holstein Calf (6-12months)			
Animal Number	15		15		70		70			
Animal Weight	1229 lbs		1229 lbs		585 lbs		585 lbs			
Animal Group AUs	18.44 AUs		18.44 AUs		40.95 AUs	-	40.95 AUs			
Animal Group AEUs	9.24 AEUs		9.19 AEUs		20.53 AEUs		20.42 AEUs	-		_
Daily Manure Production per	6.9 gal		6.9 gal		9.2 gal		9.2 gal			
Total Days Manure Produced	183 days	-	182 days		183 days	-	182 days	-		
Total Manure Produced	Records		Records		Records		Records			
Days On Pasture	0 days		0 days		0 days		0 days	=		
Hours Per Day On Pasture	0 hrs		0 hrs		0 hrs		0 hrs			
Total Bedding	Records		Records		Records		Records			
Total Washwater	Records		Records		Records		Records			
CALCULATED - Total Uncollected Manure Per Animal Group										
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records			

Appendix 3 Manure Group Information Crop Yrs. 2024	Heife	er Pit (Spring)	Per	n Pack	Field P1 -	- Grazing	Calculator	Field P2 - Gr	azing Calculator	Field P3 - Grazi	ng Calculator
Manure Report Date (note if averaging several reports)	5/17/2022		7/5/2022		Uncollected Bo	ook		Uncollected Book		Uncollected Book	
Laboratory Name	Waypoint		Waypoint		PSU Agronomy	Guide		PSU Agronomy Gui	de	PSU Agronomy Guide	_
Manure Type	Dairy		Dairy		Other			Other	<del></del>	Other	=
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal		lb/ton	<del></del>	lb/ton			lb/ton	<del></del>	lb/ton	=
Total Nitrogen (N) (lbs/ton or 1000 gal)	24	<del></del>	12.4	<u> </u>	9			9	<del></del>	10	_
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	11.1		2.6		0			0		0	_
Total Organic N (lbs/ton or 1000 gal)	12.90		9.80		9.00			9.00		10.00	_
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	10.4		2.9		3			3		3	_
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	26.4		3.14		7			7		7	_
Percent Solids	8		37.4		0			0		0	_
PSC Value (analytical or book value)	0.8		0.8		0.8			0.8		0.8	_
Percent Moisture	92.00		62.60		100.00			100.00		100.00	
Manure Group AEU's	39.05		18.30		0.00			0.00		0.00	
Description: Site & Season Applied	Heifer Pit	Spring	Compost Shed	Spring and Fall	Grazing		Grazing	Grazing	Grazing	Grazing	Grazing
Inventory Method	Records		Records		Records			Records		Records	
	Collected Calc.	Uncollected C	alc. Collected Calc.	Uncollected Calc.	Collected Calc.		Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.
Manure Group Identification	Heifer Pit (Spring)	Heifer Pit (Spri			Field P1 - Grazing Calculator			Field P2 - Grazing Calculator		Field P3 - Grazing Calculator	
CALCULATED: Total Manure Collected Per Manure Group	0.0	70.5	0.0		0.0			0.0		0.0	
Units	gallons	Tons	Tons		Tons			Tons		Tons	
RECORDS: Total Manure Collected Per Manure Group	250,000.0		200.0		11.6		11.6	58.2		123.4	
Unit	Gallons		Tons		Tons			Tons		Tons	
	Collected	Uncollected	Collected	Uncollected	Collected		Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	419,400.0	70.5	270.0	0.0	11.6		0.0	58.2	0.0	123.4	0.0
Units	Gallons	Tons	Tons		Tons			Tons		Tons	
Manure Exported	0.0		0.0		0.0			0.0		0.0	
Units	gallons		tons								
Manure Allocation Balance Units	-169,400.0 Gallons	0.0 Tons	-70.0 Tons	0.0	0.0 Tons		0.0	0.0 Tons	0.0	0.0 Tons	0.0
Manure Balance as a Percent of Total Manure Collected	-67.8%	10//5	-35.0%		0.1%			0.1%		0.0%	
Total Rainfall and Runoff		'	,	'		ļ.			,		•

Appendix 3 Manure Group Information Crop Yrs. 2024	Heifer Pit (\$	Spring)	Pen Pa	ack	Field P1 - Grazir	ng Calculator	Field P2 - Grazin	g Calculator	Field P3 - Grazir	ng Calculator
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 1	Heifers (Spring)	Heifers (Spring) - uncollected	Calves							
Animal Type	*User Entered* Holstein Heifer (13-22months)	Total Nitrogen (N) lbs/ton	*User Entered* Holstein Calf (3-5months)							
Animal Number	80	10.00	45							
Animal Weight	979 lbs	Total Phosphate (P2O5) lbs/ton	310 lbs							
Animal Group AUs	78.32 AUs	3.00	13.95 AUs			-				
Animal Group AEUs	39.05 AEUs	Total Potash (K2O) lbs/ton	13.95 AEUs							
Daily Manure Production per AU	6.9 gal	7.00	80.0 lb							
Total Days Manure Produced	182 days	PSC Value	365 days							
Total Manure Produced	Records	0.80	Records							
Days On Pasture	60 days		0 days							
Hours Per Day On Pasture	12 hrs		0 hrs							
Total Bedding	Records		Records							
Total Washwater	Records		Records							
CALCULATED - Total Uncollected Manure Per Animal Group	16,212.24 gal	70.49 - Tons								
CALCULATED-Total Manure Collected Per Animal Group	Records		Records							
Animal Group 2			Calves							
Animal Type			*User Entered* Holstein Calf (0-2months)							
Animal Number			30			-				
Animal Weight			145 lbs							
Animal Group AUs			4.35 AUs							
Animal Group AEUs			4.35 AEUs							
Daily Manure Production per AU			80.0 lb			]				]
Total Days Manure Produced			365 days			1				]
Total Manure Produced			Records							
Days On Pasture			0 days			=				
Hours Per Day On Pasture			0 hrs							
Total Bedding			Records							]
Total Washwater			Records							
CALCULATED - Total Uncollected Manure Per Animal Group										
CALCULATED-Total Manure Collected Per Animal Group			Records							

Appendix 3 Manure Group Information Crop Yrs. 2025	Robot E	Barn Lagoon (Fall)	Robot Barn Lago	oon (Spring)	Tiesta	all Pit (Fall)	Tiestall	Pit (Spring)	Heife	er Pit (Fall)
Manure Report Date (note if averaging several reports)	5/17/2022		5/17/2022		5/17/2022		5/17/2023		5/17/2022	
Laboratory Name	Waypoint		Waypoint	<del>_</del>	Waypoint		Waypoint		Waypoint	
Manure Type	Dairy		Dairy	<del>-</del>	Dairy		Dairy		Dairy	
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal		lb/1000 gal	_	lb/1000 gal		lb/1000 gal		lb/1000 gal	
Total Nitrogen (N) (lbs/ton or 1000 gal)	28.7		28.7	_	22.9		22.9	<u> </u>	24	
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	13.6		13.6		12.8		12.8		11.1	
Total Organic N (lbs/ton or 1000 gal)	15.10		15.10		10.10		10.10		12.90	
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.8		8.8	_	8.6		8.6		10.4	
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	19.2		19.2		13.8		13.8		26.4	
Percent Solids	5.5		5.5	_	6		6		8	
PSC Value (analytical or book value)	0.8		0.8	_	0.8		0.8		0.8	
Percent Moisture	94.50		94.50		94.00		94.00		92.00	
Manure Group AEU's	179.36		178.38		79.42		78.98		39.27	
Description: Site & Season Applied	Lagoon	Fall	Lagoon	Spring	Tiestall Pit	Fall	Tiestall Pit	Spring	Heifer Pit	Fall
Inventory Method	Records		Records		Records		Records		Records	
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.
Manure Group Identification	Robot Barn Lagoon (Fall)		Robot Barn Lagoon (Spring)		Tiestall Pit (Fall)	Tiestall Pit (Fall) - uncollected	Tiestall Pit (Spring)	Tiestall Pit (Spring) - uncollected	Heifer Pit (Fall)	Heifer Pit (Fall) - uncollected
CALCULATED: Total Manure Collected Per Manure Group	0.0		0.0		0.0	49.9	0.0	20.0	0.0	176.2
Units	gallons		gallons		gallons	Tons	gallons	Tons	gallons	Tons
RECORDS: Total Manure Collected Per Manure Group	1,400,000.0		1,400,000.0		500,000.0		500,000.0		200,000.0	
Unit	Gallons		Gallons		Gallons		Gallons		Gallons	
	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	1,453,500.0	0.0	1,453,500.0	0.0	513,600.0	49.9	599,400.0	20.0	216,000.0	176.2
Units	Gallons		Gallons		Gallons	Tons	Gallons	Tons	Gallons	Tons
Manure Exported	0.0		0.0		0.0		0.0		0.0	
Units	gallons		gallons		gallons		gallons		gallons	
Manure Allocation Balance	-53,500.0	0.0	-53,500.0	0.0	-13,600.0	0.0	-99,400.0	0.0	-16,000.0	0.0
Units	Gallons		Gallons		Gallons	Tons	Gallons	Tons	Gallons	Tons
Manure Balance as a Percent of Total Manure Collected	-3.8%		-3.8%		-2.7%		-19.9%		-8.0%	
Total Rainfall and Runoff										

Appendix 3 Manure Group Information Crop Yrs. 2025	Robot Barn La	goon (Fall)	Robot Barn Lago	on (Spring)	Tiestall Pit	(Fall)	Tiestall Pit (	Spring)	Heifer Pit	(Fall)
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 1	Lactating Cows		Lactating Cows		Lactating Cows		Lactating Cows		Heifers (Fall)	Heifers (Fall) - uncollected
Animal Type	Holstein Lactating Cow	-	Holstein Lactating Cow		Holstein Lactating Cow		Holstein Lactating Cow		*User Entered* Holstein Heifer (13-22months)	Total Nitrogen (N) lbs/ton
Animal Number	222		222		63		63		80	10.00
Animal Weight	1450 lbs		1450 lbs		1450 lbs		1450 lbs		979 lbs	Total Phosphate (P2O5) lbs/ton
Animal Group AUs	321.90 AUs		321.90 AUs		91.35 AUs		91.35 AUs		78.32 AUs	3.00
Animal Group AEUs	161.39 AEUs		160.51 AEUs		45.80 AEUs		45.55 AEUs		39.27 AEUs	Total Potash (K2O) lbs/ton
Daily Manure Production per AU	13.0 gal	-	13.0 gal		13.0 gal		13.0 gal		6.9 gal	7.00
Total Days Manure Produced	183 days	-	182 days	_	183 days		182 days		183 days	PSC Value
Total Manure Produced	Records		Records		Records		Records		Records	0.80
Days On Pasture	0 days		0 days		0 days		0 days		150 days	
Hours Per Day On Pasture	0 hrs		0 hrs		0 hrs		0 hrs		12 hrs	
Total Bedding	Records		Records		Records		Records		Records	
Total Washwater	Records		Records		Records		Records		Records	
CALCULATED - Total Uncollected Manure Per Animal Group									40,530.60 gal	176.22 - Tons
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records		Records	
Animal Group 2	Dry Cows		Dry Cows		Dry Cows (Fall)	Dry Cows (Fall) - uncollected	Dry Cows (Spring)	Dry Cows (Spring) - uncollected		
Animal Type	Holstein Dry Cow		Holstein Dry Cow		Holstein Dry Cow	Total Nitrogen (N) lbs/ton	Holstein Dry Cow	Total Nitrogen (N) lbs/ton		
Animal Number	12		12		18	9.00	18	9.00		
Animal Weight	1450 lbs		1450 lbs		1450 lbs	Total Phosphate (P2O5) lbs/ton	1450 lbs	Total Phosphate (P2O5) lbs/ton		
Animal Group AUs	17.40 AUs		17.40 AUs		26.10 AUs	3.00	26.10 AUs	3.00		
Animal Group AEUs	8.72 AEUs		8.68 AEUs		13.09 AEUs	Total Potash (K2O) lbs/ton	13.01 AEUs	Total Potash (K2O) lbs/ton		
Daily Manure Production per AU	6.0 gal		6.0 gal		6.0 gal	7.00	6.0 gal	7.00		
Total Days Manure Produced	183 days		182 days		183 days	PSC Value	182 days	PSC Value		
Total Manure Produced	Records		Records		Records	0.80	Records	0.80		
Days On Pasture	0 days		0 days		150 days		60 days			
Hours Per Day On Pasture	0 hrs	]	0 hrs		12 hrs		12 hrs			
Total Bedding	Records		Records		Records		Records			
Total Washwater	Records		Records		Records		Records			
CALCULATED - Total Uncollected Manure Per Animal Group					11,745.00 gal	49.92 - Tons	4,698.00 gal	19.97 - Tons		
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records			

Appendix 3 Manure Group Information Crop Yrs. 2025	Robot Barn La	goon (Fall)	Robot Barn Lago	on (Spring)	Tiestall Pi	t (Fall)	Tiestall Pit (	(Spring)	Heifer Pit	t (Fall)
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 3	Bred Heifer		Bred Heifer		Heifer		Heifer			
Animal Type	*User Entered* Holstein Heifer (23-24months)		*User Entered* Holstein Heifer (23-24months)		*User Entered* Holstein Calf (6-12months)		*User Entered* Holstein Calf (6-12months)			
Animal Number	15		15		70		70			
Animal Weight	1229 lbs		1229 lbs		585 lbs		585 lbs			
Animal Group AUs	18.44 AUs		18.44 AUs		40.95 AUs	=	40.95 AUs	-		<u>-</u>
Animal Group AEUs	9.24 AEUs		9.19 AEUs		20.53 AEUs		20.42 AEUs	=		
Daily Manure Production per	6.9 gal		6.9 gal		9.2 gal		9.2 gal			
Total Days Manure Produced	183 days		182 days		183 days	-	182 days	-		
Total Manure Produced	Records		Records		Records		Records			
Days On Pasture	0 days		0 days		0 days		0 days	=		
Hours Per Day On Pasture	0 hrs		0 hrs		0 hrs		0 hrs			
Total Bedding	Records		Records		Records		Records			
Total Washwater	Records		Records		Records		Records			
CALCULATED - Total Uncollected Manure Per Animal Group		-		-						
CALCULATED-Total Manure Collected Per Animal Group	Records		Records		Records		Records			

Appendix 3 Manure Group Information Crop Yrs. 2025	Heife	er Pit (Spring)	Per	n Pack	Field P1 -	- Grazing	Calculator	Field P2 - Gr	azing Calculator	Field P3 - Grazi	ng Calculator
Manure Report Date (note if averaging several reports)	5/17/2022		7/5/2022		Uncollected Bo	ook		Uncollected Book		Uncollected Book	
Laboratory Name	Waypoint		Waypoint		PSU Agronomy	Guide		PSU Agronomy Gui	de	PSU Agronomy Guide	_
Manure Type	Dairy		Dairy	<del></del>	Other			Other	<del></del>	Other	_
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal		lb/ton	<del></del>	lb/ton			lb/ton	<del></del>	lb/ton	=
Total Nitrogen (N) (lbs/ton or 1000 gal)	24		12.4	<del></del>	9			9	<del></del>	10	_
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	11.1		2.6		0			0		0	_
Total Organic N (lbs/ton or 1000 gal)	12.90		9.80		9.00			9.00		10.00	_
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	10.4		2.9	<u> </u>	3			3		3	_
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	26.4		3.14		7			7		7	_
Percent Solids	8		37.4		0			0		0	
PSC Value (analytical or book value)	0.8		0.8		0.8			0.8		0.8	
Percent Moisture	92.00		62.60		100.00			100.00		100.00	
Manure Group AEU's	39.05		18.30		0.00			0.00		0.00	
Description: Site & Season Applied	Heifer Pit	Spring	Compost Shed	Spring and Fall	Grazing		Grazing	Grazing	Grazing	Grazing	Grazing
Inventory Method	Records		Records		Records			Records		Records	
	Collected Calc.	Uncollected 0	alc. Collected Calc.	Uncollected Calc.	Collected Calc.		Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.
Manure Group Identification	Heifer Pit (Spring)	Heifer Pit (Spri uncollecte			Field P1 - Grazing Calculator			Field P2 - Grazing Calculator		Field P3 - Grazing Calculator	
CALCULATED: Total Manure Collected Per Manure Group	0.0	70.5	0.0		0.0			0.0		0.0	
Units	gallons	Tons	Tons		Tons			Tons		Tons	
RECORDS: Total Manure Collected Per Manure Group	250,000.0		200.0		11.6		11.6	58.2		123.4	
Unit	Gallons		Tons		Tons			Tons		Tons	
	Collected	Uncollecte	d Collected	Uncollected	Collected		Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	419,400.0	70.5	270.0	0.0	11.6		0.0	58.2	0.0	123.4	0.0
Units	Gallons	Tons	Tons		Tons			Tons		Tons	
Manure Exported	0.0		0.0		0.0			0.0		0.0	
Units	gallons		tons								
Manure Allocation Balance Units	-169,400.0 Gallons	0.0 Tons	-70.0 Tons	0.0	0.0 Tons		0.0	0.0 Tons	0.0	0.0 Tons	0.0
Manure Balance as a Percent of Total Manure Collected	-67.8%	1015	-35.0%		0.1%			0.1%		0.0%	
Total Rainfall and Runoff				<u> </u>		"		,			•

Appendix 3 Manure Group Information Crop Yrs. 2025	Heifer Pit (\$	Spring)	Pen Pa	ack	Field P1 - Grazir	ng Calculator	Field P2 - Grazin	g Calculator	Field P3 - Grazir	ng Calculator
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values
Animal Group 1	Heifers (Spring)	Heifers (Spring) - uncollected	Calves							
Animal Type	*User Entered* Holstein Heifer (13-22months)	Total Nitrogen (N) lbs/ton	*User Entered* Holstein Calf (3-5months)							
Animal Number	80	10.00	45							
Animal Weight	979 lbs	Total Phosphate (P2O5) lbs/ton	310 lbs							
Animal Group AUs	78.32 AUs	3.00	13.95 AUs							
Animal Group AEUs	39.05 AEUs	Total Potash (K2O) lbs/ton	13.95 AEUs							
Daily Manure Production per AU	6.9 gal	7.00	80.0 lb							
Total Days Manure Produced	182 days	PSC Value	365 days							
Total Manure Produced	Records	0.80	Records							
Days On Pasture	60 days		0 days							
Hours Per Day On Pasture	12 hrs		0 hrs							
Total Bedding	Records		Records							
Total Washwater	Records		Records							
CALCULATED - Total Uncollected Manure Per Animal Group	16,212.24 gal	70.49 - Tons								
CALCULATED-Total Manure Collected Per Animal Group	Records		Records							
Animal Group 2			Calves							
Animal Type			*User Entered* Holstein Calf (0-2months)							-
Animal Number			30							
Animal Weight			145 lbs							
Animal Group AUs			4.35 AUs							
Animal Group AEUs			4.35 AEUs							1
Daily Manure Production per AU			80.0 lb			]				]
Total Days Manure Produced			365 days			1				1
Total Manure Produced			Records							]
Days On Pasture			0 days							
Hours Per Day On Pasture			0 hrs							
Total Bedding			Records							]
Total Washwater			Records							]
CALCULATED - Total Uncollected Manure Per Animal Group										
CALCULATED-Total Manure Collected Per Animal Group			Records							

CMU/Field ID Acres Soil Test Report Date	54.5 February 6, 2023 Waypoint		1		2		2				3				
Acres					•			_			-			Ū	
Soil Test Report Date		54.5			54.5			11.8			11.8			20.0	
	F	ebruary 6, 202	3	F	ebruary 6, 202	3	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	44	80	6.9	44	80	6.9	90	108	6.8	90	108	6.8	135	77	6.4
P Index Part A Evaluation	No	to All Part A		No	to All Part A			<150ft			<150ft		N	o to All Part A	
Part A Result		N Based			N Based			Part B			Part B			N Based	
Crop	Sr	nall Grain Sila	ge	Corr	n for Silage (No	o-till)	Si	mall Grain Sila	ge	Cori	n for Silage (No	o-till)	S	mall Grain Sila	ige
Planned Yield		10	ton/A		28	ton/A		10	ton/A		28	ton/A		10	ton/A
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20
PSU Soil Test Recommendation (lb/A)	150	20	280	240	30	290	150	0	230	240	0	240	150	0	280
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	[27]	Winter Double	Crop	27	Summer Doub	le Crop	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Double	e Crop
Manure History Description Residual Manure N (Ib/A)	11	Continuously - Double Crop	Winter	24	Continuously - Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	Continuously - W Double Crop		- Winter
Legume History Description Residual Legume N (lb/A)	0	0 No Legume Residual N O No Legume Residual N Credit 0		No Legume Residual N Credit		esidual N	0	No Legume R Credit	lesidual N						
Net Nutrients Required (lb/A)	139	20	280	189	-29 397		139 0 230		189 -79 297		139	0	280		
Manure Group	Robot Barn La	agoon (Fall)		Robot Barn Lagoon (Spring)		Robot Barn La	agoon (Fall)		Robot Barn La	agoon (Spring)		Robot Barn L	agoon (Fall)		
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and ge. Incorp 0-2 o	small grain	Spring 1.2-12: Incorporated the same day		Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days				the same day	Early Fall 1.2-12: fall and sprir grass hay, small grains and sr silage. Incorp 0-2 days		id small grain		
A	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Index Application Method							S	tarter or Injecte	ed	S	tarter or Injecte	ed			
N Balanced Manure Rate (ton; gal/A)	11642	gal/A		11688	gal/A		11642	gal/A		11688	gal/A		11642	gal/A	
P Removal Balance Manure Rate		20682	gal/A		11705	gal/A		20682	gal/A		11705	gal/A		20682	gal/A
I	Crop P Remov		182.0	Crop P Remo		103.0	Crop P Remo		182.0	Crop P Remo	val (lb/A)	103.0	Crop P Remo	val (lb/A)	182.0
P Index Value	-							42		·	42				
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	107	79	173	145	79	173	107	79	173	145	79	173	107	79	173
Nutrient Balance after Manure	32	-59	107	44	-108	224	32	-79	57	44	-158	124	32	-79	107
Supplemental Fertilizer (lb/A)	32	0	0	44	0	0	32	0	0	44	0	0	32	0	0
P Index Application Method		I									•			•	•
Final Nutrient Balance (lb/A)	0	-59	107	0	-108	224	0	-79	57	0	-158	124	0	-79	107
Multiple Application			· · · · · · · · · · · · · · · · · · ·			<u> </u>					1	1	-	1	
Manure Utilized on CMU		490,500	gallons		490,500	gallons		106,200	gallons	106,200 gallons		gallons		180,000	gallons

App. 4: Crop Yrs. 2023		3			4			4			5		5				
CMU/Field ID																	
Acres		20.0			10.5		10.5				18.7		18.7				
Soil Test Report Date	F	ebruary 6, 202	3	February 6, 2023			February 6, 2023			F	ebruary 6, 202	23	February 6, 2023				
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint			
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P 43	ppm K	pH	ppm P	ppm K	pH		
(Show conversions to ppm in Appendix 10)	135	77	6.4	90				90 108 6.8			73	6.9	43	73	6.9		
P Index Part A Evaluation	N	to All Part A		No to All Part A			No to All Part A			N	o to All Part A		No to All Part A				
Part A Result		N Based		N Based			N Based				N Based		N Based				
Crop	Con	n for Silage (No		S	Small Grain Silage			Corn for Silage (No-till)			mall Grain Sila	•	Co	rn for Silage (N			
Planned Yield		28	ton/A	10 ton/A		28 ton/A				10	ton/A		28	3 ton/A			
PSU Soil Test Recommendation (lb/A)	N 240	<b>P2O5</b>	<b>K2O</b> 290	N 150	<b>P2O5</b>	<b>K2O</b> 230	N 240	<b>P2O5</b>	<b>K2O</b> 240	N 150	<b>P2O5</b>	<b>K2O</b> 280	N 240	<b>P2O5</b>	<b>K2O</b> 290		
User Soil Test Recommendation (lb/A)	240	Ů	200	100	•	200	240		240	100	20	200	240		200		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)																	
P Index Application Method																	
Double Crop CarryOver N (lb/A)	27	Summer Doub	le Crop	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Double Crop		27	Summer Dou	ble Crop		
Manure History Description Residual Manure N (lb/A)	24	Continuously Double Crop	- Summer	11	Continuously - Winter Double Crop		24	Continuously Double Crop	- Summer	11	Continuously - Winter Double Crop		24	Continuously Double Crop			
Legume History Description Residual Legume N (lb/A)	0	No Legume Residual N Credit		0	No Legume Residual N Credit		0	No Legume Residual N Credit		0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N		
Net Nutrients Required (lb/A)	189	-79	397	139	0	230	189	-79	297	139	20	280	189	-29	397		
Manure Group	Robot Barn La	agoon (Spring)		Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring	)		
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12: Incorporated the same day			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days			Spring 1.2-12: Incorporated the same day			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days							
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N		
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		
P Index Application Method						ı			ı								
N Balanced Manure Rate (ton; gal/A)	11688	gal/A		11642	2 gal/A		11688 gal/A			11642	gal/A		11688 gal/A				
P Removal Balance Manure Rate		11705	gal/A	20682 gal/A			11705 gal/A				20682	gal/A	11705 gal/A				
(ton or gal/A; If required by P Index)	Crop P Remo		103.0	Crop P Removal (Ib/A) 182.0		Crop P Removal (lb/A) 103.0			Crop P Remo	oval (lb/A)	182.0	Crop P Removal (lb/A) 103.0					
P Index Value	<u> </u>	. ,		,			,	, ,			, ,			, ,			
Planned Manure Rate (ton or gal/A)		9000 gal/A			9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		
Nutrients Applied at Planned Manure Rate (lb/A)	145	79	173	107	79	173	145	79	173	107	79	173	145	79	173		
Nutrient Balance after Manure	44	-158	224	32	-79	57	44	-158	124	32	-59	107	44	-108	224		
Supplemental Fertilizer (lb/A)	44	0	0	32	0	0	44	0	0	32	0	0	44	0	0		
P Index Application Method					1	1		1	1		1	I		1	1		
Final Nutrient Balance (lb/A)	0	-158	224	0	-79	57	0	-158	124	0	-59	107	0	-108	224		
Multiple Application						1		1	1			1		1	ı		
Manure Utilized on CMU		180,000	gallons		94,500	gallons		94.500	gallons		168,300	gallons		168,300	) gallons		

App. 4: Crop Yrs. 2023		6			6			7			7		8			
CMU/Field ID																
Acres		19.0		19.0			14.5				14.5		12.5			
Soil Test Report Date	F	ebruary 6, 202	23	February 6, 2023			February 6, 2023			F	February 6, 202	23	February 6, 2023			
Laboratory Name		Waypoint	ı	Waypoint			Waypoint				Waypoint		Waypoint			
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pH	
(Show conversions to ppm in Appendix 10)	75	145	6.5	75 145 6.5			90 108 6.8			90	108	6.8	81	84	6.6	
P Index Part A Evaluation	N	o to All Part A		No to All Part A			No to All Part A			N	lo to All Part A		No to All Part A			
Part A Result	_	N Based		N Based			N Based				N Based		N Based Small Grain Silage			
Crop	S	mall Grain Sila	•	Corn for Silage (No-till)			Small Grain Silage			Cor	n for Silage (N		8		•	
Planned Yield			ton/A	28 ton/A		10 ton/A					ton/A			ton/A		
PSU Soil Test Recommendation (lb/A)	N 150	<b>P2O5</b>	<b>K2O</b> 130	N 240	<b>P2O5</b>	<b>K2O</b> 130	<b>N</b> 150	<b>P2O5</b>	<b>K2O</b> 230	N 240	<b>P2O5</b>	<b>K2O</b> 240	N 150	<b>P2O5</b>	<b>K2O</b> 270	
User Soil Test Recommendation (lb/A)	1.00	-			-			-								
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)																
P Index Application Method					•											
Double Crop CarryOver N (lb/A)	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Double Crop		27	Summer Double Crop		[27]	Winter Doubl	le Crop	
Manure History Description Residual Manure N (lb/A)	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously - Winter Double Crop		24	Continuously Double Crop	- Summer	11	Continuously Double Crop		
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	egume Residual N lit		No Legume Residual N Credit		0	No Legume Residual N Credit		0	No Legume Residual N Credit		0	No Legume Residua Credit		
Net Nutrients Required (lb/A)	139	0	130	189	-79	87	139	0	230	189	-79	297	139	0	270	
Manure Group	Robot Barn La	agoon (Fall)		Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring	)	Robot Barn L	agoon (Fall)		
Application Season: Management (Incorporation, cover crops, etc.)	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days			Spring 1.2-12: Incorporated the same day			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days						Early Fall 1.2-12: fall and spring us ay grass hay, small grains and small g silage. Incorp 0-2 days			
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25	
P Index Application Method		ı	ı		1				ı							
N Balanced Manure Rate (ton; gal/A)	11642	gal/A		11688	gal/A		11642	gal/A		11688	B gal/A		11642	2 gal/A		
P Removal Balance Manure Rate		20682	gal/A	11705 gal/A				20682	gal/A		11705	gal/A	20682 gal/A			
(ton or gal/A; If required by P Index)	Crop P Remo		182.0	Crop P Removal (lb/A) 103.0			Crop P Removal (Ib/A) 182.0			Crop P Remo	oval (lb/A)	103.0	Crop P Remo		182.0	
P Index Value										<u>'</u>			·			
Planned Manure Rate (ton or gal/A)		9000 gal/A			9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A	
Nutrients Applied at Planned Manure Rate (lb/A)	107	79	173	145	79	173	107	79	173	145	79	173	107	79	173	
Nutrient Balance after Manure	32	-79	-43	44	-158	-86	32	-79	57	44	-158	124	32	-79	97	
Supplemental Fertilizer (lb/A)	32	0	0	44	0	0	32	0	0	44	0	0	32	0	0	
P Index Application Method		1	1		1	1		1			1	1		1	1	
Final Nutrient Balance (lb/A)	0	-79	-43	0	-158	-86	0	-79	57	0	-158	124	0	-79	97	
Multiple Application		1	1	-		1		1				1		1	1	
Manure Utilized on CMU		171,000	gallons		171,000	gallons		130,500	gallons		130,500	gallons		112,500	) gallons	

App. 4: Crop Yrs. 2023		8			30			30			P1		P2				
CMU/Field ID																	
Acres		12.5		1.4				1.4			2.0		10.0				
Soil Test Report Date	F	ebruary 6, 202	3	February 6, 2023			February 6, 2023			F	ebruary 6, 202	23	February 6, 2023				
Laboratory Name		Waypoint		Waypoint			Waypoint				Waypoint		Waypoint				
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	рН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН		
(Show conversions to ppm in Appendix 10)	81	84	6.6	81	84 6.6		81 84 6.6		6.6	111 182 6.7		111 182		6.7			
P Index Part A Evaluation	N	to All Part A		No to All Part A			No to All Part A				<150ft		<150ft				
Part A Result		N Based		N Based			N Based				Part B		Part B				
Crop	Con	n for Silage (No	o-till)	S	mall Grain Sila	ge	Corn for Silage (No-till)			Established	d Pasture (with	out legume)	Establishe	d Pasture (with	hout legume)		
Planned Yield		28 ton/A		10 ton/A			28 ton/A				3	ton/A		;	3 ton/A		
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20		
PSU Soil Test Recommendation (lb/A)	240	0	280	150	0	270	240	0	280	150	0	10	150	0	10		
User Soil Test Recommendation (lb/A)																	
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)																	
P Index Application Method																	
Double Crop CarryOver N (lb/A)	27	Summer Doub	le Crop	[18]	Winter Double Crop		18	18 Summer Double Crop		0			0				
Manure History Description Residual Manure N (lb/A)	24	Continuously - Double Crop	- Summer	11	Continuously - Winter Double Crop		24	Continuously - Summer Double Crop		35 Continuously - Summer Crop		- Summer	35	Continuously Crop	- Summer		
Legume History Description Residual Legume N (lb/A)	0	No Legume Ro	esidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	Residual N	0	No Legume I	Residual N		
Net Nutrients Required (lb/A)	189	-79	377	139	0	270	198	-77	426	115	0	10	115	0	10		
Manure Group	Robot Barn La	agoon (Spring)		Tiestall Pit (Fall)			Tiestall Pit (S	Spring)		Field P1 - Gra	azing Calculato	or	Field P2 - Gr	azing Calculat	or		
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12: Incorporated the same day			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days			Spring 1.2-1	2: Incorporated	d after 7 days	-	ytime with nut		_	nytime with nu ing growing se			
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N		
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.10	0.25		0.10	0.35	0.20			0.20				
P Index Application Method		,								April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct: No incorp or incorp > 1 wk.				
N Balanced Manure Rate (ton; gal/A)	11688	gal/A		36483 gal/A			41079 gal/A			63.9	tons/A		63.9 tons/A				
P Removal Balance Manure Rate		11705	gal/A	21163 gal/A			12209 gal/A				15	tons/A	15 tons/A				
(ton or gal/A; If required by P Index)	Crop P Remo		103.0	Crop P Removal (lb/A) 182.0			Crop P Removal (Ib/A) 105.0			Crop P Remo		45.0	Crop P Remo	oval (lb/A)	45.0		
P Index Value					· , ,		,			,	26			26			
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		5.82	tons/A		5.82	2 tons/A		
Nutrients Applied at Planned Manure Rate (lb/A)	145	79	173	34	77	124	43	77	124	10	17	41	10	17	41		
Nutrient Balance after Manure	44	-158	204	105	-77	146	155	-154	302	105	-17	-31	105	-17	-31		
Supplemental Fertilizer (lb/A)	44	0	0	105	0	0	155	0	0	105	0	0	105	0	0		
P Index Application Method		1				1		1	1		1			1	1		
Final Nutrient Balance (lb/A)	0	-158	204	0	-77	146	0	-154	302	0	-17	-31	0	-17	-31		
Multiple Application		1			1	1		1	1		<u> </u>	1		1	1		
Manure Utilized on CMU		112,500	gallons		12,600	gallons		12,600	gallons		12	tons	58 tons				
		,			,,,,,	-	l .	,,,,,	<u> </u>	l .			58 tons				

	P3			P4			CF5			CF5		CF6				
	6.0		* *							3.0		•				
F		3				• • • • • • • • • • • • • • • • • • • •			F		23	February 6, 2023				
	Waypoint	,														
				11			- ''	· ·		- ''				pH		
111		6.7	111		6.7	96		7.1	96		7.1		-	7.1		
<u> </u>									_			_				
Established			, ,			· ·			Cor	• '		S		•		
		ton/A			10 ton/A					ton/A			ton/A			
N 150	<b>P2O5</b>	<b>K2O</b>	N 150	<b>P2O5</b>	<b>K2O</b>	N 150	<b>P2O5</b>	<b>K2O</b>	N 240	<b>P2O5</b>	<b>K2O</b> 320	N 150	<b>P2O5</b>	<b>K2O</b> 300		
100	_ <u> </u>		100					000	2.0		020					
0			0			[20]	Winter Double Crop		20	Summer Double Crop		[20]	Winter Double	le Crop		
35	Continuously - Crop	Summer	35	Continuously - Summer Crop		11	Continuously Double Crop	- Winter	24	Continuously - Summer Double Crop		11	Continuously Double Crop			
0	No Legume Ro Credit	esidual N	0	No Legume Residual N Credit		0	No Legume Residual N Credit		0	0 No Legume Residual N Credit		0	No Legume R Credit	Residual N		
115	0	10	115	0	10	139	0	300	196	-29	589	139	0	300		
Field P3 - Gra	zing Calculato	r	Field P4 - Gra	azing Calculato	or	Pen Pack			Pen Pack			Pen Pack				
			Grazing anytime with nutrient uptake during growing season			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days						Early Fall 1.2-12: fall and spring uses grass hay, small grains and small gr silage. Incorp after 7 days				
Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N		
0.20			0.20				0.10	0.25		0.10	0.35		0.10	0.25		
April - Oct: 1	No incorp or in	corp > 1 wk.	April - Oct: No incorp or incorp > 1 wk.			April - Oct: No incorp or incorp > 1 wk.			April - Oct:	No incorp or in	corp > 1 wk.					
57.5	tons/A		57.5 tons/A			51.3 tons/A			53.1	tons/A		51.3 tons/A				
	15	tons/A								52.8	tons/A	62.8 tons/A				
Crop P Remo	val (lb/A)	45.0							Crop P Remo	oval (lb/A)	153.0					
	46			46		45			,	45						
	20.56	tons/A		20.56	tons/A		10	tons/A		10	tons/A		10	tons/A		
41	62	144	41	62	144	27	29	31	37	29	31	27	29	31		
74	-62	-134	74	-62	-134	112	-29	269	159	-58	558	112	-29	269		
74	0	0	74	0	0	112	0	0	159	0	0	112	0	0		
1				1	I	-	1 -	1		1	ı	-	1 -	1		
0	-62	-134	0	-62	-134	0	-29	269	0	-58	558	0	-29	269		
				1	1		1	1 -**		1 22	1		1	1		
123 tons			123 tons			30 tons						75 tons				
	ppm P 111  Established  N 150  0 35  0 115  Field P3 - Gra  durit  Total N 0.20  April - Oct: I 57.5  Crop P Remove	6.0   February 6, 202   Waypoint   ppm P   ppm K   111   182   <150ft   Part B   Established Pasture (without state of the part of the p	6.0   February 6, 2023   Waypoint   ppm P   ppm K   pH   111   182   6.7   <150ft   Part B   Established Pasture (without legume)   3 ton/A   N   P205   K20   150   0   10	6.0   February 6, 2023   Febru	6.0	Rebruary 6, 2023   February 6,	6.0   6.0   6.0   February 6, 2023   February 6,	6.0   6.0   3.0     February 6, 2023   February 6, 2023   February 6, 2023   February 6, 2023     Waypoint   Waypoint   Waypoint   Waypoint   Waypoint     ppm P   ppm K   pH   ppm P   ppm K   pH   ppm P   ppm K     111   182   6.7   111   182   6.7   96   57     <	6.0   6.0   3.0     February 6, 2023   February 6, 2023   February 6, 2023     Waypoint   Waypoint   Waypoint   Waypoint     ppm P   ppm K   pH   ppm P   ppm K   pH   ppm P   ppm K   pH     111   182   6.7   111   182   6.7   96   57   7.1     <		Solution	February 6, 2023	Septimary 6, 2023   February 6, 2025   February 6	February 6, 2023   February 6,		

App. 4: Crop Yrs. 2023		CF6			CF7			CF7			CF9		CF9			
CMU/Field ID																
Acres		7.5		7.0			7.0				3.0		3.0			
Soil Test Report Date	F	ebruary 6, 202	23	February 6, 2023			February 6, 2023			١	February 6, 202	23	February 6, 2023			
Laboratory Name		Waypoint		Waypoint			Waypoint			Waypoint			Waypoint			
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	
(Show conversions to ppm in Appendix 10)	96	57	7.1		96 57 7.1		96 57 7.1		96 57 7.1			96	57	7.1		
P Index Part A Evaluation	N	o to All Part A		No to All Part A			No to All Part A			N	lo to All Part A		No to All Part A			
Part A Result		N Based		N Based			N Based				N Based		N Based			
Crop	Cor	n for Silage (No		Small Grain Silage			Corn for Silage (No-till)			8	Small Grain Sila		Corn for Silage (No-till)			
Planned Yield		28	ton/A	10 ton/A		28 ton/A				10	ton/A		28	ton/A		
PSU Soil Test Recommendation (lb/A)	N 240	<b>P2O5</b>	<b>K2O</b> 320	<b>N</b> 150	<b>P2O5</b>	<b>K2O</b> 300	<b>N</b> 240	<b>P2O5</b>	<b>K2O</b> 320	N 150	<b>P2O5</b>	<b>K2O</b> 300	N 240	<b>P2O5</b>	<b>K2O</b> 320	
U 0 17 18 11 (11 (1)	240	U	320	150	0	300	240	U	320	150	U	300	240	U	320	
User Soil Test Recommendation (lb/A)																
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)																
P Index Application Method																
Double Crop CarryOver N (lb/A)	20	Summer Doub	ole Crop	[18]	Winter Double	e Crop	18	Summer Double Crop		[20]	•		20	Summer Dou	ble Crop	
Manure History Description Residual Manure N (lb/A)	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously - Summer Double Crop		11	Continuously - Winter Double Crop		24	Continuously Double Crop		
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	esidual N	0	No Legume Residual N Credit		0	No Legume Residual N Credit		0 No Legume Residual N Credit		Residual N	0	No Legume F Credit	Residual N	
Net Nutrients Required (lb/A)	196	-29	589	139	0	300	198	-77	496	139	0	300	196	-29	589	
Manure Group	Pen Pack			Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Pen Pack			Pen Pack			
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	Spring 1.2-12: Incorporated after 7 days			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days			2: Incorporated	the same day	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp after 7 days						
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.60	0.25		0.80	0.35		0.10	0.25		0.10	0.35	
P Index Application Method		I.				I.		1	I.							
N Balanced Manure Rate (ton; gal/A)	53.1	tons/A		13614	l gal/A		14369 gal/A			51.3	3 tons/A		53.1 tons/A			
P Removal Balance Manure Rate		52.8	tons/A	21163 gal/A			14309 gal/A 12209 gal/A				62.8	tons/A	52.8 tons/A			
(ton or gal/A; If required by P Index)	Crop P Remo		153.0	Crop P Removal (lb/A) 182.0			Crop P Remo	Crop P Removal (lb/A) 105.0			oval (lb/A)	182.0	Crop P Removal (lb/A) 153.0			
P Index Value				'						<u>'</u>			'			
Planned Manure Rate (ton or gal/A)	1	10 tons/A			9000	gal/A		9000	gal/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate (lb/A)	37	29	31	92	77	124	124	77	124	27	29	31	37	29	31	
Nutrient Balance after Manure	159	-58	558	47	-77	176	74	-154	372	112	-29	269	159	-58	558	
Supplemental Fertilizer (lb/A)	159	0	0	47	0	0	74	0	0	112	0	0	159	0	0	
P Index Application Method	1.55	ı	I		ı	ı	1	1 ,	ı			ı	1.00	1 ~		
Final Nutrient Balance (lb/A)	0	-58	558	0	-77	176	0	-154	372	0	-29	269	0	-58	558	
Multiple Application		-30	550	0		170		-104	012		-29	203	•	-50	] 330	
Manure Utilized on CMU		75	tons		63,000	gallone		63,000	gallone		30	tons	30 tons			
Invariance Ounized Off CIVIO		75	10115	l	03,000	yallulis		03,000	yallulis		30	10115	30 tons			

CMU/Field ID           Acres           Soil Test Report Date           Laboratory Name           Soil Test Levels (Mehlich-3 P & K)         ppm           (Show conversions to ppm in Appendix 10)         141           P Index Part A Evaluation         Part A Result           Crop         Planned Yield           PSU Soil Test Recommendation (Ib/A)         N           User Soil Test Recommendation (Ib/A)         Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)           P Index Application Method         Double Crop CarryOver N (Ib/A)         [18]           Manure History Description         11           Residual Manure N (Ib/A)         0	P No	S1  12.0  abruary 6, 2023  Waypoint  ppm K  88  to All Part A  N Based  nall Grain Silag	pH 6.6	ppm P 141	S1  12.0 February 6, 202 Waypoint ppm K 88	1	F	S2-S4 24.0 February 6, 202	3		S2-S4 24.0			S5 4.5			
Acres   Soil Test Report Date	P No	Waypoint ppm K 88 to All Part A N Based nall Grain Silag	pН	ppm P 141	Waypoint ppm K	1	F		3	-				4.5			
Laboratory Name	P No	Waypoint ppm K 88 to All Part A N Based nall Grain Silag	pН	ppm P 141	Waypoint ppm K	1	F	ebruary 6, 202	3					4.5			
Soil Test Levels (Mehlich-3 P & K)	No	ppm K 88 to All Part A N Based	· ·	141	ppm K	n!!		February 6, 2023			February 6, 2023			February 6, 2023			
Show conversions to ppm in Appendix 10   141	No	88 to All Part A N Based nall Grain Silag	· ·	141		nII.	Waypoint			Waypoint			Waypoint				
P Index Part A Evaluation		to All Part A N Based nall Grain Silag	6.6		22	pН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	рН		
Part A Result         Crop           Planned Yield         N           PSU Soil Test Recommendation (lb/A)         150           User Soil Test Recommendation (lb/A)         (lb/A)           Other Nutrients Applied (lb/A)         (lb/A)           (Nutrients applied regardless of manure)         P Index Application Method           Double Crop CarryOver N (lb/A)         [18]           Manure History Description         11           Residual Manure N (lb/A)         0           Legume History Description         0		N Based nall Grain Silag		N	00	6.6	91	102	6.5	91	102	6.5	36	98	6.6		
Crop Planned Yield  PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0	Sn	nall Grain Silag		No to All Part A			No to All Part A			No	o to All Part A		No to All Part A				
Planned Yield  PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0	Sm			N Based			N Based				N Based		N Based				
PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0		10	ge	Corn for Silage (No-till)			Sı	mall Grain Silaç	ge	Corr	n for Silage (No	o-till)	S	Small Grain Sila	age		
PSU Soil Test Recommendation (lb/A)		10 ton/A			28 ton/A			10 ton/A			28	ton/A		10	0 ton/A		
User Soil Test Recommendation (Ib/A)  Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (Ib/A)  Manure History Description Residual Manure N (Ib/A)  Legume History Description Residual Legume N (Ib/A)  0		P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0		0	270	240	0	280	150	0	230	240	0	240	150	40	260		
(Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0																	
Double Crop CarryOver N (lb/A)   [18]   Manure History Description   11     Residual Manure N (lb/A)   12     Legume History Description   0     Residual Legume N (lb/A)   0																	
Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0																	
Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  0		Winter Double	Crop	18	18 Summer Double Crop			Winter Double	Crop	18	Summer Doub	ble Crop	[23]	Winter Double	le Crop		
Residual Legume N (lb/A)		Continuously - Double Crop	Winter	24	Continuously - Summer Double Crop		11	Continuously - Winter Double Crop		24	Continuously - Summer Double Crop		11	Continuously Double Crop			
		No Legume Re Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume Re Credit	esidual N	0	0 No Legume Residual N Credit		0	No Legume R	Residual N		
Net Nutrients Required (lb/A) 139		0	270	198	-77	426	139	0	230	198	-77	346	139	40	260		
Manure Group Tiestall I	Pit (Fa	II)		Tiestall Pit (S	Spring)		Tiestall Pit (Fa	all)		Tiestall Pit (Sp	pring)		Heifer Pit (Fa	all)			
IAnnlication Season: Management (Incorporation	Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days			Spring 1.2-12: Incorporated the same day			Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days			Spring 1.2-12	2: Incorporated	the same day	Early Fall 1.2-12: fall and spring use y grass hay, small grains and small gra silage. Incorp 0-2 days				
Total	N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N		
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25		
P Index Application Method												•		-			
N Balanced Manure Rate (ton; gal/A) 1	3614	gal/A		14369 gal/A			13614 gal/A			14369	gal/A		14055 gal/A				
P Removal Balance Manure Rate		21163	gal/A	12209 gal/A			21163 gal/A				12209	gal/A	17500 gal/A				
(ton or gal/A; If required by P Index)  Crop P F	Remov	al (lb/A)	182.0	Crop P Removal (Ib/A) 105.0			Crop P Removal (lb/A) 182.0			Crop P Remov	val (lb/A)	105.0	Crop P Removal (lb/A) 182.0				
P Index Value				·						·							
Planned Manure Rate (ton or gal/A)	9000 gal/A		gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		
Nutrients Applied at Planned Manure Rate (lb/A) 92		77	124	124	77	124	92	77	124	124	77	124	89	94	238		
Nutrient Balance after Manure 47		-77	146	74	-154	302	47	-77	106	74	-154	222	50	-54	22		
Supplemental Fertilizer (lb/A) 47		0	0	74	0	0	47	0	0	74	0	0	50	0	0		
P Index Application Method					1												
Final Nutrient Balance (lb/A)		-77	146	0	-154	302	0	-77	106	0	-154	222	0	-54	22		
Multiple Application								, ,		1	, ,	1					
Manure Utilized on CMU	l										•	•					

App. 4: Crop Yrs. 2023		S5			S6			S6			<b>S</b> 7			S7	
CMU/Field ID															
Acres		4.5			4.0			4.0			9.5			9.5	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23	ı	February 6, 20	23
Laboratory Name		Waypoint			Waypoint	1		Waypoint			Waypoint	1		Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	36	98	6.6	36	98	6.6	36	98	6.6	36	98	6.6	36	98	6.6
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	o to All Part A		N	o to All Part A		N	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Con	n for Silage (No		S	Small Grain Sila	•	Cor	n for Silage (N		S	mall Grain Sila		Coi	n for Silage (N	
Planned Yield		28	ton/A		10	ton/A		28	ton/A		10	ton/A		28	3 ton/A
PSU Soil Test Recommendation (lb/A)	<b>N</b> 240	<b>P2O5</b> 70	<b>K2O</b> 260	<b>N</b> 150	<b>P2O5</b>	<b>K2O</b> 260	<b>N</b> 240	<b>P2O5</b>	<b>K2O</b> 260	<b>N</b> 150	<b>P2O5</b>	<b>K2O</b> 260	<b>N</b> 240	<b>P2O5</b>	<b>K2O</b> 260
U 0 17 18 10 10 10 10	240	70	200	150	40	200	240	70	200	150	40	200	240	70	200
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	23	Summer Doub	le Crop	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	[23]	Winter Double	e Crop	23	Summer Dou	ıble Crop
Manure History Description Residual Manure N (lb/A)	24	No Legumo Posidual N			Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop		24	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	0	0 No Legume Residual N Credit			No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	Residual N	0	No Legume I Credit	Residual N
Net Nutrients Required (lb/A)	193	16	282	139	40	260	198	33	396	139	40	260	193	16	282
Manure Group	Heifer Pit (Sp	ring)		Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Heifer Pit (Fa	ıll)		Heifer Pit (Sp	oring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay, s	.2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay, s	.2-12: fall and s small grains an e. Incorp after	d small grain	Spring 1.2-1	12: Incorporate	ed after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.10	0.25		0.10	0.35		0.10	0.25		0.10	0.35
P Index Application Method									1						-
N Balanced Manure Rate (ton; gal/A)	14403	gal/A		36483	3 gal/A		41079	gal/A		32028	gal/A		34281	I gal/A	
P Removal Balance Manure Rate		8462	gal/A		21163	gal/A		12209	gal/A		17500	gal/A			2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		88.0	Crop P Remo		182.0	Crop P Remo		105.0	Crop P Remo		182.0	Crop P Remo		88.0
P Index Value		( ,			( ,	102.0			100.0	5		102.0		( ,	
Planned Manure Rate (ton or gal/A)	1	9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	) gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	121	<b>9000</b> gal/A 121 94 238			77	124	43	77	124	39	94	238	51	94	238
Nutrient Balance after Manure	72	-78	44	34 105	-37	136	155	-44	272	100	-54	22	142	-78	44
Supplemental Fertilizer (lb/A)	72	0	0	105	0	0	155	0	0	100	0	0	142	0	0
P Index Application Method	12	· ·	U	100			100	U		100			172	1 "	1 0
	0			0	-37	136	0	-44	272	0	-54	22	0	-78	44
Final Nutrient Balance (lb/A)	"	-78	44	U	-31	130	, U	-44	212	U	-04		U	-10	44
Multiple Application		/o =c=			00.00-			00.05-							
Manure Utilized on CMU		40,500	gallons		36,000	gallons		36,000	gallons		85,500	gallons		85,500	gallons

App. 4: Crop Yrs. 2023		C2			C2			HW3			HW3			M1	
CMU/Field ID		02			02			11003			11003			IVI I	
Acres		7.0			7.0			3.0			3.0			2.9	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23		February 6, 20	023
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	40	219	6.6	40	219	6.6	20	45	6.3	20	45	6.3	34	95	6.1
P Index Part A Evaluation		Special Prot.			Special Prot.		N	o to All Part A	•	N	o to All Part A		١	No to All Part A	١
Part A Result		Part B			Part B			N Based			N Based			N Based	
Crop	S	mall Grain Sila	ge	Cor	n for Silage (N	o-till)	Estab	lished Mixed G	irasses	Estab	lished Mixed G	Grasses		Small Grain Si	lage
Planned Yield		10	ton/A		28	ton/A		6	ton/A		6	o ton/A			8 ton/A
2011 0 11 7 12 1 15 11 11 11 11	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
PSU Soil Test Recommendation (lb/A)	150	40	0	240	70	0	300	130	330	300	130	330	120	40	210
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	[18]	Winter Double	Crop	18	Summer Doub	ole Crop	0			0			[23]	Winter Doub	ole Crop
Manure History Description Residual Manure N (lb/A)	11 Continuously - Winter Double Crop  No Legume Residual N			24	Continuously Double Crop	- Summer	35	Continuously Crop	- Summer	0	Continuously Crop	- Summer	11	Continuousl Double Crop	
Legume History Description Residual Legume N (lb/A)	No Legume Residual N Credit			0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume F Credit	Residual N	0	No Legume Credit	Residual N
Net Nutrients Required (lb/A)	139	40	0	198	33	-124	265	130	330	246	87	261	109	40	210
Manure Group	Tiestall Pit (F	all)		Tiestall Pit (S	pring)		Tiestall Pit (F	all)		Tiestall Pit (S	pring)		Heifer Pit (Fa	all)	
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and e. Incorp after 7	small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay, s	2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporate	d after 7 days	grass hay,		spring use by nd small grain 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.25		0.10	0.35		0.10	0.25		0.10	0.35		0.10	0.25
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.					•			ų.	•
N Balanced Manure Rate (ton; gal/A)	36483	gal/A		41079	gal/A		69554	gal/A		51037	gal/A		2511	5 gal/A	
P Removal Balance Manure Rate		21163	gal/A		12209	gal/A		10465	gal/A		5465	gal/A		1423	1 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	105.0	Crop P Remo	val (lb/A)	90.0	Crop P Remo	val (lb/A)	47.0	Crop P Rem	oval (lb/A)	148.0
P Index Value		88			88										
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		5000	gal/A		5000	gal/A		900	0 gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	<b>9000</b> gal/A 34 77 124			43	77	124	19	43	69	24	43	69	39	94	238
Nutrient Balance after Manure	105	-37	-124	155	-44	-248	246	87	261	222	44	192	70	-54	-28
Supplemental Fertilizer (lb/A)	105 -37 -124		155	0	0	0	0	0	222	0	0	70	0	0	
P Index Application Method	105 0 0														
Final Nutrient Balance (lb/A)	0	-37	-124	0	-44	-248				0	44	192	0	-54	-28
Multiple Application		1			1	1	HV	/3.1 Multiple In	nitial	HV	V3.2 Multiple F	inal			1
Manure Utilized on CMU		63,000	gallons		63,000	gallons		15,000	gallons		15,000	) gallons		26,10	0 gallons

App. 4: Crop Yrs. 2023		M1			M2			M2			Orman1			Orman2	
CMU/Field ID															
Acres		2.9			7.1			7.1			17.5			16.4	
Soil Test Report Date	F	ebruary 6, 202	23	I	February 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23	ı	ebruary 6, 20	23
Laboratory Name		Waypoint	I		Waypoint	T		Waypoint	ı		Waypoint	T		Waypoint	1
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pH
(Show conversions to ppm in Appendix 10)	34	95	6.1	34	95	6.1	34	95	6.1	15	50	6.2	22	62	6.5
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	o to All Part A			Special Prot.		Sp	ecial Prot. <1	50ft
Part A Result		N Based			N Based			N Based			Part B			Part B	
Crop	Con	n for Silage (No		S	Small Grain Sila		Cor	n for Silage (N		Coi	rn for Grain (No		Co	rn for Grain (N	
Planned Yield		23	ton/A		. 8	ton/A		23	ton/A		200	bu/A		200	bu/A
PSU Soil Test Recommendation (lb/A)	N 200	<b>P2O5</b>	<b>K2O</b> 220	N 120	<b>P2O5</b>	<b>K20</b> 210	N 200	<b>P2O5</b>	<b>K2O</b> 220	N 230	<b>P2O5</b>	<b>K2O</b> 140	N 230	<b>P2O5</b>	<b>K2O</b>
User Soil Test Recommendation (lb/A)	200	00	220	120	10	210	200	00	220	250	130	140	250	110	110
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)															
P Index Application Method		ļ.						•						4	
Double Crop CarryOver N (lb/A)	23	Summer Doub	ole Crop	[23]	Winter Double	e Crop	23	Summer Doub	ole Crop	0			0		
Manure History Description Residual Manure N (lb/A)	24	No Logumo Pocidual N			Continuously Double Crop	- Summer	24	Continuously Double Crop	- Summer	20	Frequently - S	Summer Crop	20	Frequently -	Summer Crop
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	esidual N	0			0		
Net Nutrients Required (lb/A)	153	26	192	96	40	210	153	26	192	210	130	140	210	110	110
Manure Group	Heifer Pit (Sp	ring)		Heifer Pit (Fa	all)		Heifer Pit (Sp	oring)		Heifer Pit (Sp	oring)		Heifer Pit (Sp	oring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay,	.2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	Spring 1.2-1	2: Incorporate	d after 7 days	Spring 1.2-1	2: Incorporate	d after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.10	0.25		0.10	0.35		0.10	0.35		0.10	0.35
P Index Application Method		1			1	1		1		April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or i	ncorp > 1 wk.
N Balanced Manure Rate (ton; gal/A)	27176	gal/A		22120	gal/A		27176	gal/A		37300	gal/A		37300	) gal/A	
P Removal Balance Manure Rate		5192	gal/A		14231	gal/A		5192	gal/A		7692	gal/A		7692	2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	54.0	Crop P Remo		148.0	Crop P Remo	oval (lb/A)	54.0	Crop P Remo	oval (lb/A)	80.0	Crop P Remo	oval (lb/A)	80.0
P Index Value		( - /		- '	( ' '						24		- '	30	
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		6000	gal/A		6000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	51	<b>9000</b> gal/A 51 94 238		39	94	238	51	94	238	34	62	158	34	62	158
Nutrient Balance after Manure	102	-68	-46	57	-54	-28	102	-68	-46	176	68	-18	176	48	-48
Supplemental Fertilizer (lb/A)	102	0	0	57	0	0	102	0	0	176	0	0	176	0	0
P Index Application Method	1	I	ı <u> </u>	j.	<u> </u>	ı	1	ı	I	† <u> </u>	ı			1 <u> </u>	1
Final Nutrient Balance (lb/A)	0	-68	-46	0	-54	-28	0	-68	-46	0	68	-18	0	48	-48
Multiple Application		0 -68 -46			1 -04	-20		-00	1		1 00	-10		1 70	1 -10
Manure Utilized on CMU	+	26,100	gallons		63,900	gallons		63,900	gallons		105,000	gallons		98.400	) gallons
	_	20,100	94.10110	l	00,000	94110110	l .	55,500	94110110	L	100,000	94110110	l	00,400	ganono

App. 4: Crop Yrs. 2023		Orman3			Orman4			Orman5	
CMU/Field ID									
Acres		9.3			3.0			2.0	
Soil Test Report Date	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23
Laboratory Name	_	Waypoint		_	Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)	ppm P	ppm K	pH	ppm P	ppm K	pН	ppm P	ppm K	pН
, , , ,	9	52	6.7	9	52	6.7	9	52	6.7
P Index Part A Evaluation	Sp	ecial Prot. <15	50ft	Spe	ecial Prot. <15	0H	Sp	ecial Prot. <15	oOft
Part A Result	-	Part B	en)		Part B			Part B	
Crop	Cor	n for Grain (No		Estab	lished Mixed G		Estab	lished Mixed G	
Planned Yield			bu/A			ton/A			ton/A
PSU Soil Test Recommendation (lb/A)	N 230	<b>P2O5</b>	<b>K2O</b>	N 300	<b>P2O5</b> 170	<b>K2O</b> 320	N 300	<b>P2O5</b>	<b>K2O</b> 320
User Soil Test Recommendation (lb/A)									
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)									
P Index Application Method									
Double Crop CarryOver N (lb/A)	0			0			0		
Manure History Description Residual Manure N (lb/A)	20	Frequently - S	Summer Crop	20	Frequently - S	Summer Crop	20	Frequently - S	Summer Crop
Legume History Description Residual Legume N (lb/A)	0			0			0		
Net Nutrients Required (lb/A)	210	140	130	280	170	320	280	170	320
Manure Group	Tiestall Pit (S	pring)		Tiestall Pit (S	pring)		Tiestall Pit (S	pring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporated	d after 7 days	Spring 1.2-1	2: Incorporated	d after 7 days	Spring 1.2-1	2: Incorporated	d after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.10	0.35		0.10	0.35
P Index Application Method	April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.
N Balanced Manure Rate (ton; gal/A)	43568	gal/A	-	58091	gal/A		58091	gal/A	
P Removal Balance Manure Rate			gal/A		10465	gal/A		10465	gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		80.0	Crop P Remo		90.0	Crop P Remo		90.0
P Index Value		23		·	23			23	
Planned Manure Rate (ton or gal/A)		6000	gal/A		6000	gal/A		6000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	29	52	83	29	52	83	29	52	83
Nutrient Balance after Manure	181	88	47	251	118	237	251	118	237
Supplemental Fertilizer (lb/A)	181	0	0	251	0	0	251	0	0
P Index Application Method	-		1	-					
Final Nutrient Balance (lb/A)	0	88	47	0	118	237	0	118	237
Multiple Application		1	1		1	1	-	1	1
	+	55,800							

App. 4: Crop Yrs. 2024		1			1			2			2			3	
CMU/Field ID	-	•			•			_			_			Ü	
Acres		54.5			54.5			11.8			11.8			20.0	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	!3	F	ebruary 6, 202	23	F	ebruary 6, 202	23		February 6, 20	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	44	80	6.9	44	80	6.9	90	108	6.8	90	108	6.8	135	77	6.4
P Index Part A Evaluation	N	o to All Part A		N	o to All Part A			<150ft			<150ft		١	lo to All Part A	
Part A Result		N Based			N Based			Part B			Part B			N Based	
Crop	S	mall Grain Sila	ge	Con	n for Silage (N	o-till)	S	mall Grain Sila	ige	Cor	n for Silage (N	o-till)	9	Small Grain Sila	age
Planned Yield		10	ton/A		28	ton/A		10	ton/A		28	ton/A		10	0 ton/A
DOLLOS II Took Donous and Alice (II-IA)	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O
PSU Soil Test Recommendation (lb/A)	150	20	280	240	30	290	150	0	230	240	0	240	150	0	280
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	[27]	Winter Double	Crop	27	Summer Doub	ole Crop	[27]	Winter Double	e Crop	27	Summer Doul	ble Crop	[27]	Winter Doub	le Crop
Manure History Description Residual Manure N (lb/A)	11 Continuously - Winter Double Crop  No Legume Residual N			24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	No Legume Residual N Credit		0	No Legume R Credit	esidual N	0			0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N	
Net Nutrients Required (lb/A)	139	20	280	189	-29	397	139	0	230	189	-79	297	139	0	280
Manure Group	Robot Barn La	agoon (Fall)		Robot Barn L	agoon (Spring)		Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring	)	Robot Barn I	agoon (Fall)	
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s small grains and ge. Incorp 0-2 o	small grain	Spring 1.2-12	l: Incorporated	the same day	grass hay, s	2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay,	.2-12: fall and small grains ar age. Incorp 0-2	nd small grain
Accidentation France	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Index Application Method						Į.	S	starter or Inject	ed	5	Starter or Inject	ed			ļ.
N Balanced Manure Rate (ton; gal/A)	11642	gal/A		11688	gal/A		11642	gal/A		11688	gal/A		1164	2 gal/A	
P Removal Balance Manure Rate		20682	gal/A		11705	gal/A		20682	gal/A		11705	gal/A		20682	2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	103.0	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	103.0	Crop P Rem	oval (lb/A)	182.0
P Index Value								42			42				
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	107	79	173	145	79	173	107	79	173	145	79	173	107	79	173
Nutrient Balance after Manure	32	-59	107	44	-108	224	32	-79	57	44	-158	124	32	-79	107
Supplemental Fertilizer (lb/A)	32	0	0	44	0	0	32	0	0	44	0	0	32	0	0
P Index Application Method	32   0   0														
Final Nutrient Balance (lb/A)	0	-59	107	0	-108	224	0	-79	57	0	-158	124	0	-79	107
Multiple Application					ı			ı						<u>l</u>	<u>l</u>
Manure Utilized on CMU		490,500	gallons		490,500	gallons		106,200	gallons		106,200	gallons		180,000	gallons

App. 4: Crop Yrs. 2024		3			4			4			5			5	
CMU/Field ID															
Acres		20.0			10.5			10.5			18.7			18.7	
Soil Test Report Date	F	ebruary 6, 202	3	ı	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23	ı	February 6, 20	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint	1		Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pH	ppm P	ppm K	pH
(Show conversions to ppm in Appendix 10)	135	77	6.4	90	108	6.8	90	108	6.8	43	73	6.9	43	73	6.9
P Index Part A Evaluation	N	to All Part A		N	lo to All Part A		N	o to All Part A		N	o to All Part A		N	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Con	n for Silage (No		S	Small Grain Sila	•	Cor	n for Silage (N		S	mall Grain Sila	•	Coi	rn for Silage (N	
Planned Yield			ton/A			ton/A			ton/A			ton/A			3 ton/A
PSU Soil Test Recommendation (lb/A)	N 240	<b>P2O5</b>	<b>K2O</b> 290	<b>N</b> 150	<b>P2O5</b>	<b>K2O</b> 230	N 240	<b>P2O5</b>	<b>K2O</b> 240	N 150	<b>P2O5</b>	<b>K2O</b> 280	N 240	<b>P2O5</b>	<b>K2O</b> 290
User Soil Test Recommendation (lb/A)	2.0	, and the second	200			200	2.0		2.0			200	2.0	- "	200
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	27	Summer Doub	le Crop	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Double	e Crop	27	Summer Dou	ble Crop
Manure History Description Residual Manure N (lb/A)	24	No Legume Posidual N			Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop		24	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	0	No Legume Residual N Credit		0	No Legume R Credit	tesidual N	0	No Legume R Credit	Residual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)	189	-79	397	139	0	230	189	-79	297	139	20	280	189	-29	397
Manure Group	Robot Barn La	agoon (Spring)		Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)	•	Robot Barn L	agoon (Spring	)
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay,	.2-12: fall and s small grains and ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay, s	.2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-1	2: Incorporated	I the same day
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35
P Index Application Method		Į.						-11			-11				
N Balanced Manure Rate (ton; gal/A)	11688	gal/A		11642	2 gal/A		11688	gal/A		11642	gal/A		11688	3 gal/A	
P Removal Balance Manure Rate		11705	gal/A		20682	gal/A		11705	gal/A		20682	gal/A		11705	gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	103.0	Crop P Remo	oval (lb/A)	182.0	Crop P Remo	val (lb/A)	103.0	Crop P Remo	val (lb/A)	182.0	Crop P Remo	oval (lb/A)	103.0
P Index Value		ii		-											
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	145	79	173	107	79	173	145	79	173	107	79	173	145	79	173
Nutrient Balance after Manure	44	-158	224	32	-79	57	44	-158	124	32	-59	107	44	-108	224
Supplemental Fertilizer (lb/A)	44	0	0	32	0	0	44	0	0	32	0	0	44	0	0
P Index Application Method		I			1	1		1	1		1	I		1	1
Final Nutrient Balance (lb/A)	0	-158	224	0	-79	57	0	-158	124	0	-59	107	0	-108	224
Multiple Application		0 -158 224				1		1	1			1		1	I
Manure Utilized on CMU		180,000	gallons		94,500	gallons		94.500	gallons		168,300	gallons		168,300	) gallons

App. 4: Crop Yrs. 2024		6			6			7			7			8	
CMU/Field ID															
Acres		19.0			19.0			14.5			14.5			12.5	
Soil Test Report Date	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	February 6, 202	23	ı	ebruary 6, 20	23
Laboratory Name		Waypoint	1		Waypoint			Waypoint	,		Waypoint	1		Waypoint	1
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	75	145	6.5	75	145	6.5	90	108	6.8	90	108	6.8	81	84	6.6
P Index Part A Evaluation	N	o to All Part A		N	o to All Part A		N <sub>1</sub>	o to All Part A		N	lo to All Part A		N	o to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	S	mall Grain Sila	•	Cor	n for Silage (N		S	mall Grain Sila		Cor	rn for Silage (N		S	Small Grain Sila	<u> </u>
Planned Yield		10	ton/A		28	ton/A		10	ton/A		28	ton/A		10	ton/A
PSU Soil Test Recommendation (lb/A)	N 150	<b>P2O5</b>	<b>K2O</b>	N 240	<b>P2O5</b>	<b>K2O</b> 130	N 150	<b>P2O5</b>	<b>K2O</b> 230	N 240	<b>P2O5</b>	<b>K2O</b> 240	N 150	<b>P2O5</b>	<b>K2O</b> 270
User Soil Test Recommendation (lb/A)	100		100	240	•	100	100		200	240		240	100		270
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method		•	•		•	•		•	•		•	•		•	•
Double Crop CarryOver N (lb/A)	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Doubl	e Crop
Manure History Description Residual Manure N (lb/A)	11	No Legume Peridual N			Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	No Legume Residual N Credit			0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	lesidual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)	139	0	130	189	-79	87	139	0	230	189	-79	297	139	0	270
Manure Group	Robot Barn La	agoon (Fall)		Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)	•
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay, s	.2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay,	.2-12: fall and small grains an	d small grain
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Index Application Method		ı	ı		1						<u> </u>	ı		1	
N Balanced Manure Rate (ton; gal/A)	11642	gal/A		11688	gal/A		11642	gal/A		11688	3 gal/A		11642	gal/A	
P Removal Balance Manure Rate		20682	gal/A		11705	gal/A		20682	gal/A		11705	gal/A		20682	gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		182.0	Crop P Remo	oval (lb/A)	103.0	Crop P Remo	val (lb/A)	182.0	Crop P Remo	oval (lb/A)	103.0	Crop P Remo		182.0
P Index Value	,	<u>, , , , , , , , , , , , , , , , , , , </u>		,				, ,		,			,	. ,	
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	<b>9000</b> gal/A 107 79 173			145	79	173	107	79	173	145	79	173	107	79	173
Nutrient Balance after Manure	32	-79	-43	44	-158	-86	32	-79	57	44	-158	124	32	-79	97
Supplemental Fertilizer (lb/A)	32	0	0	44	0	0	32	0	0	44	0	0	32	0	0
P Index Application Method		1	1		1	1		1	1		1	1		1	
Final Nutrient Balance (lb/A)	0 -79 -43			0	-158	-86	0	-79	57	0	-158	124	0	-79	97
Multiple Application	0 -79 -43			-							1	I			1
		171,000 gallons													

App. 4: Crop Yrs. 2024		8			30			30			P1			P2	
CMU/Field ID															
Acres		12.5			1.4			1.4			2.0			10.0	
Soil Test Report Date	F	ebruary 6, 202	23	I	February 6, 202	23	F	February 6, 202	23	F	ebruary 6, 202	23		February 6, 202	23
Laboratory Name		Waypoint	ı		Waypoint	T		Waypoint	ı		Waypoint	T		Waypoint	T
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pH	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pH
(Show conversions to ppm in Appendix 10)	81	84	6.6	81	84	6.6	81	84	6.6	111	182	6.7	111	182	6.7
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	lo to All Part A			<150ft			<150ft	
Part A Result		N Based			N Based			N Based			Part B			Part B	
Crop	Con	n for Silage (No		S	Small Grain Sila	•	Cor	n for Silage (N		Establishe	d Pasture (with		Establishe	ed Pasture (with	
Planned Yield			ton/A			ton/A			ton/A			ton/A			3 ton/A
PSU Soil Test Recommendation (lb/A)	N 240	<b>P2O5</b>	<b>K2O</b> 280	N 150	<b>P2O5</b>	<b>K2O</b> 270	N 240	<b>P2O5</b>	<b>K2O</b> 280	N 150	<b>P2O5</b>	<b>K2O</b>	N 150	<b>P2O5</b>	<b>K2O</b>
User Soil Test Recommendation (lb/A)		-									-				
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	27	Summer Doub	ole Crop	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	0			0		
Manure History Description Residual Manure N (lb/A)	24	No Logumo Posidual N			Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	35	Continuously Crop	- Summer	35	Continuously Crop	- Summer
Legume History Description Residual Legume N (lb/A)	0	No Legume Residual N Credit		0	No Legume R Credit	lesidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)	189	-79	377	139	0	270	198	-77	426	115	0	10	115	0	10
Manure Group	Robot Barn La	agoon (Spring)	1	Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Field P1 - Gr	azing Calculato	or	Field P2 - Gr	azing Calculate	or
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay,	.2-12: fall and s small grains and e. Incorp after i	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days		nytime with nutring growing sea			nytime with nut ring growing se	
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.10	0.25		0.10	0.35	0.20			0.20		
P Index Application Method		ı			1	ı				April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.
N Balanced Manure Rate (ton; gal/A)	11688	gal/A		36483	3 gal/A		41079	gal/A		63.9	tons/A		63.9	9 tons/A	
P Removal Balance Manure Rate		11705	gal/A		21163	gal/A		12209	gal/A		15	tons/A		15	tons/A
(ton or gal/A; If required by P Index)	Crop P Remo		103.0	Crop P Remo	oval (lb/A)	182.0	Crop P Remo	oval (lb/A)	105.0	Crop P Remo	oval (lb/A)	45.0	Crop P Rem	oval (lb/A)	45.0
P Index Value											26			26	
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		5.82	tons/A		5.82	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	145	<b>9000</b> gal/A 145 79 173		34	77	124	43	77	124	10	17	41	10	17	41
Nutrient Balance after Manure	44	-158	204	105	-77	146	155	-154	302	105	-17	-31	105	-17	-31
Supplemental Fertilizer (lb/A)	44	0	0	105	0	0	155	0	0	105	0	0	105	0	0
P Index Application Method		1	1		1	1		1	1		1			1	1
Final Nutrient Balance (lb/A)	0	0 -158 204			-77	146	0	-154	302	0	-17	-31	0	-17	-31
Multiple Application		0 -158 204			I	1		1	1		ı	1		1	1
Manure Utilized on CMU		112,500	gallons		12,600	gallons		12,600	gallons		12	tons		58	3 tons

App. 4: Crop Yrs. 2024		P3			P4			CF5			CF5			CF6	
CMU/Field ID															
Acres		6.0			6.0			3.0			3.0			7.5	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23		February 6, 20	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	111	182	6.7	111	182	6.7	96	57	7.1	96	57	7.1	96	57	7.1
P Index Part A Evaluation		<150ft			<150ft			<150ft			<150ft		N	lo to All Part A	
Part A Result		Part B			Part B			Part B			Part B			N Based	
Crop	Established	l Pasture (with	out legume)	Established	d Pasture (with	out legume)	S	mall Grain Sila	ige	Cor	n for Silage (N	o-till)	8	Small Grain Sila	age
Planned Yield		3	ton/A		3	ton/A		10	ton/A		28	ton/A		10	ton/A
PSU Soil Test Recommendation (lb/A)	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
P30 30ii Test Neconiniendation (ID/A)	150	0	10	150	0	10	150	0	300	240	0	320	150	0	300
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	0			0			[20]	Winter Double	e Crop	20	Summer Doul	ble Crop	[20]	Winter Doubl	le Crop
Manure History Description Residual Manure N (lb/A)	35 Continuously - Summer Crop  No Legume Residual N		35	Continuously Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	Residual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)	115	0	10	115	0	10	139	0	300	196	-29	589	139	0	300
Manure Group	Field P3 - Gra	azing Calculato	r	Field P4 - Gra	azing Calculato	or	Pen Pack			Pen Pack			Pen Pack		
Application Season: Management (Incorporation, cover crops, etc.)	-	ytime with nutr		-	nytime with nutring growing sea		grass hay, s	2-12: fall and s small grains an e. Incorp after	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay,	.2-12: fall and small grains and e. Incorp after	nd small grain
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)	0.20			0.20				0.10	0.25		0.10	0.35		0.10	0.25
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.			
N Balanced Manure Rate (ton; gal/A)	57.5	tons/A		57.5	tons/A		51.3	tons/A		53.1	tons/A		51.3	3 tons/A	
P Removal Balance Manure Rate		15	tons/A		15	tons/A		62.8	tons/A		52.8	tons/A		62.8	3 tons/A
(ton or gal/A; If required by P Index)	Crop P Remo		45.0	Crop P Remo	val (lb/A)	45.0	Crop P Remo		182.0	Crop P Remo		153.0	Crop P Rem	oval (lb/A)	182.0
P Index Value		46			46			45			45				
Planned Manure Rate (ton or gal/A)		20.56	tons/A		20.56	tons/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	41	62	144	41	62	144	27	29	31	37	29	31	27	29	31
Nutrient Balance after Manure	74	-62	-134	74	-62	-134	112	-29	269	159	-58	558	112	-29	269
Supplemental Fertilizer (lb/A)	74	0	0	74	0	0	112	0	0	159	0	0	112	0	0
P Index Application Method					1	I		1	1		1	1		1	1
Final Nutrient Balance (lb/A)	0	-62	-134	0	-62	-134	0	-29	269	0	-58	558	0	-29	269
Multiple Application		, VZ	.04		J 32	1 .04		1 23	1 200		1 00	1 000			
Manure Utilized on CMU		123	tons		123	tons		30	tons		30	tons		75	tons
		123 tons			120	.0110	<u> </u>	30	.5110	<u> </u>	30	.5110		7.0	

App. 4: Crop Yrs. 2024		CF6			CF7			CF7			CF9			CF9	
CMU/Field ID															
Acres		7.5			7.0			7.0			3.0			3.0	
Soil Test Report Date	F	ebruary 6, 202	23	I	February 6, 202	23	F	February 6, 202	23	ı	February 6, 202	23	1	February 6, 202	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	96	57	7.1	96	57	7.1	96	57	7.1	96	57	7.1	96	57	7.1
P Index Part A Evaluation	Ne	o to All Part A		N	lo to All Part A		N	lo to All Part A		N	lo to All Part A		N	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Con	n for Silage (No	o-till)	S	Small Grain Sila	ige	Cor	n for Silage (N	o-till)	S	Small Grain Sila	ige	Co	rn for Silage (N	o-till)
Planned Yield		28	ton/A		10	ton/A		28	ton/A		10	ton/A		28	ton/A
PSU Soil Test Recommendation (lb/A)	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(	240	0	320	150	0	300	240	0	320	150	0	300	240	0	320
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	20	Summer Doub	ole Crop	[18]	Winter Double	e Crop	18	Summer Doub	ble Crop	[20]	Winter Double	e Crop	20	Summer Dou	ble Crop
Manure History Description Residual Manure N (lb/A)	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop		24	Continuously Double Crop	- Summer
Legume History Description Residual Legume N (lb/A)	0	No Legume Residual N Credit		0	No Legume R Credit	tesidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)	196	-29	589	139	0	300	198	-77	496	139	0	300	196	-29	589
Manure Group	Pen Pack			Tiestall Pit (F	Fall)		Tiestall Pit (S	Spring)		Pen Pack			Pen Pack		
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay,	.2-12: fall and s small grains an age. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay,	.2-12: fall and s small grains an e. Incorp after	d small grain	Spring 1.2-	12: Incorporate	d after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.60	0.25		0.80	0.35		0.10	0.25		0.10	0.35
P Index Application Method		1			1	1			1					1	
N Balanced Manure Rate (ton; gal/A)	53.1	tons/A		13614	1 gal/A		14369	gal/A		51.3	3 tons/A		53.1	1 tons/A	
P Removal Balance Manure Rate		52.8	tons/A		21163	gal/A		12209	gal/A		62.8	tons/A		52.8	tons/A
(ton or gal/A; If required by P Index)	Crop P Remo		153.0	Crop P Remo		182.0	Crop P Remo		105.0	Crop P Remo		182.0	Crop P Remo		153.0
P Index Value		( ,	100.0		( ,	102.0		( ,	100.0		( ,	102.0		()	100.0
Planned Manure Rate (ton or gal/A)	1	10	tons/A		9000	gal/A		9000	gal/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	37	<b>10</b> tons/A 37 29 31		92	77	124	124	77	124	27	29	31	37	29	31
Nutrient Balance after Manure	159	-58	558	47	-77	176	74	-154	372	112	-29	269	159	-58	558
Supplemental Fertilizer (lb/A)	159	0	0	47	0	0	74	0	0	112	0	0	159	0	0
P Index Application Method	100	Ŭ					7.4			112			100		
, ,	0	-58	558	0	-77	176	0	-154	372	0	-29	269	0	-58	558
Final Nutrient Balance (lb/A)	U	-58	558	U	-//	1/6	U	-154	3/2	U	-29	269	U	-58	558
Multiple Application  Manure Utilized on CMU					62.000			62.000			20	tons		00	tons
IMATILITE UNITZEG ON CIVIU		/5	75 tons			gallons		03,000	gallons		30	เบาร		30	เบาร

App. 4: Crop Yrs. 2024		S1			S1			S2-S4			S2-S4			S5	
CMU/Field ID	1	٠.			•			02 0 .			02 0 .				
Acres		12.0			12.0			24.0			24.0			4.5	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	1	February 6, 20	23		February 6, 20	123
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	141	88	6.6	141	88	6.6	91	102	6.5	91	102	6.5	36	98	6.6
P Index Part A Evaluation	No	to All Part A		N	o to All Part A		N	o to All Part A		N	lo to All Part A	•	١	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Sı	mall Grain Sila	ge	Con	n for Silage (N	o-till)	S	mall Grain Sila	ige	Coi	n for Silage (N	lo-till)	5	Small Grain Sil	age
Planned Yield		10	ton/A		28	ton/A		10	ton/A		28	3 ton/A		10	0 ton/A
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
PSU Soil Test Recommendation (lb/A)	150	0	270	240	0	280	150	0	230	240	0	240	150	40	260
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	[18]	Winter Double	Crop	18	Summer Doub	ole Crop	[18]	Winter Double	e Crop	18	Summer Dou	ble Crop	[23]	Winter Doub	le Crop
Manure History Description Residual Manure N (lb/A)	11 Continuously - Winter Double Crop  No Legume Residual N			24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop		11	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	No Legume Residual N Credit			0	No Legume R Credit	lesidual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N	0	No Legume I	Residual N
Net Nutrients Required (lb/A)	139	0	270	198	-77	426	139	0	230	198	-77	346	139	40	260
Manure Group	Tiestall Pit (Fa	all)		Tiestall Pit (S	pring)		Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Heifer Pit (Fa	all)	
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and ge. Incorp 0-2 o	small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay, s	2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-1	2: Incorporated	d the same day	grass hay,	.2-12: fall and small grains ar age. Incorp 0-2	nd small grain
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Index Application Method								-11						1.	
N Balanced Manure Rate (ton; gal/A)	13614	gal/A		14369	gal/A		13614	gal/A		14369	gal/A		1405	5 gal/A	
P Removal Balance Manure Rate		21163	gal/A		12209	gal/A		21163	gal/A		12209	gal/A		17500	0 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	105.0	Crop P Remo	val (lb/A)	182.0	Crop P Remo	oval (lb/A)	105.0	Crop P Rem	oval (lb/A)	182.0
P Index Value															
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	92 77 124		124	77	124	92	77	124	124	77	124	89	94	238	
Nutrient Balance after Manure	47	-77	146	74	-154	302	47	-77	106	74	-154	222	50	-54	22
Supplemental Fertilizer (lb/A)	47	0	0	74	0	0	47	0	0	74	0	0	50	0	0
P Index Application Method	47 0 0				•	•			•		•	•		•	•
Final Nutrient Balance (lb/A)	0	-77	146	0	-154	302	0	-77	106	0	-154	222	0	-54	22
Multiple Application					1	1		1	1		1	1		1	1
Manure Utilized on CMU		108,000	gallons		108,000	gallons		216,000	gallons		216,000	) gallons		40,500	) gallons

App. 4: Crop Yrs. 2024		S5			S6			S6			S7			S7	
CMU/Field ID															
Acres		4.5			4.0			4.0			9.5			9.5	
Soil Test Report Date	F	ebruary 6, 202	3	F	February 6, 202	23	F	ebruary 6, 202	23	F	February 6, 202	23	I	February 6, 20	23
Laboratory Name		Waypoint			Waypoint	ı		Waypoint	T		Waypoint	T		Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pH
(Show conversions to ppm in Appendix 10)	36	98	6.6	36	98	6.6	36	98	6.6	36	98	6.6	36	98	6.6
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	o to All Part A		N	lo to All Part A		N	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Con	n for Silage (No		S	Small Grain Sila	•	Cor	n for Silage (N		S	Small Grain Sila		Coi	n for Silage (N	
Planned Yield		28	ton/A		10	ton/A		28	ton/A		10	ton/A		28	3 ton/A
PSU Soil Test Recommendation (lb/A)	N 240	<b>P2O5</b>	<b>K2O</b> 260	N 150	<b>P2O5</b>	<b>K2O</b> 260	N 240	<b>P2O5</b>	<b>K2O</b> 260	N 150	<b>P2O5</b>	<b>K2O</b> 260	N 240	<b>P2O5</b>	<b>K2O</b> 260
User Soil Test Recommendation (lb/A)	240	70	200	100	10	200	240	70	200	100	40	200	240	10	200
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method								•							
Double Crop CarryOver N (lb/A)	23	Summer Doub	le Crop	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	[23]	Winter Doubl	e Crop	23	Summer Dou	ıble Crop
Manure History Description Residual Manure N (lb/A)	24	No Logumo Posidual N			Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop		24	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	0	No Legume Residual N Credit			No Legume R Credit	lesidual N	0	No Legume R Credit	tesidual N	0	No Legume F Credit	Residual N	0	No Legume I	Residual N
Net Nutrients Required (lb/A)	193	16	282	139	40	260	198	33	396	139	40	260	193	16	282
Manure Group	Heifer Pit (Sp	ring)		Tiestall Pit (F	Fall)		Tiestall Pit (S	Spring)		Heifer Pit (Fa	all)		Heifer Pit (Sp	oring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay, s	.2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay, s	.2-12: fall and s small grains an e. Incorp after	d small grain	Spring 1.2-1	12: Incorporate	ed after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.10	0.25		0.10	0.35		0.10	0.25		0.10	0.35
P Index Application Method					1	1		1	1						
N Balanced Manure Rate (ton; gal/A)	14403	gal/A		36483	3 gal/A		41079	gal/A		32028	B gal/A		34281	I gal/A	
P Removal Balance Manure Rate		8462	gal/A		21163	gal/A		12209	gal/A		17500	gal/A		8462	2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	88.0	Crop P Remo	oval (lb/A)	182.0	Crop P Remo	oval (lb/A)	105.0	Crop P Remo	oval (lb/A)	182.0	Crop P Remo	oval (lb/A)	88.0
P Index Value											. ,		,		
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	) gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	121	<b>9000</b> gal/A 121 94 238		34	77	124	43	77	124	39	94	238	51	94	238
Nutrient Balance after Manure	72	-78	44	105	-37	136	155	-44	272	100	-54	22	142	-78	44
Supplemental Fertilizer (lb/A)	72	0	0	105	0	0	155	0	0	100	0	0	142	0	0
P Index Application Method	<u> </u>				1	1			ı		1 -			1 -	1 -
Final Nutrient Balance (lb/A)	0	0 -78 44		0	-37	136	0	-44	272	0	-54	22	0	-78	44
Multiple Application		0 -78 44			1	1		1	1		1 **	<u> </u>		1	1
Manure Utilized on CMU		40,500	gallons		36,000	gallons		36,000	gallons		85 500	gallons		85 500	) gallons
Mariaro Ganzoa dii Givio	_	+0,000	ganons		55,500	ganons		50,500	galloris	l	00,000	galloria		00,000	ganona

App. 4: Crop Yrs. 2024		C2			C2			HW3			HW3			M1	
CMU/Field ID		02			02			11000			11000			IVII	
Acres		7.0			7.0			3.0			3.0			2.9	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 20	23		February 6, 20	023
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	40	219	6.6	40	219	6.6	20	45	6.3	20	45	6.3	34	95	6.1
P Index Part A Evaluation		Special Prot.			Special Prot.	ļ	N	o to All Part A	ļ.	N	o to All Part A		١	No to All Part A	\
Part A Result		Part B			Part B			N Based			N Based			N Based	
Crop	S	mall Grain Sila	ge	Con	n for Silage (N	o-till)	Estab	lished Mixed G	irasses	Estab	lished Mixed C	Grasses		Small Grain Si	lage
Planned Yield		10	ton/A		28	ton/A		6	ton/A		6	ton/A			8 ton/A
2011 0 11 7 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
PSU Soil Test Recommendation (lb/A)	150	40	0	240	70	0	300	130	330	300	130	330	120	40	210
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method														•	
Double Crop CarryOver N (lb/A)	[18]	Winter Double	Crop	18	Summer Doub	ole Crop	0			0			[23]	Winter Doub	ole Crop
Manure History Description Residual Manure N (lb/A)	11	Continuously - Double Crop	Winter	24	Continuously Double Crop	- Summer	35	Continuously Crop	- Summer	0	Continuously Crop	- Summer	11	Continuousl Double Crop	
Legume History Description Residual Legume N (lb/A)	0 No Legume Residual N Credit 139 40 0			0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume F Credit	Residual N	0	No Legume Credit	Residual N
Net Nutrients Required (lb/A)	139			198	33	-124	265	130	330	246	87	261	109	40	210
Manure Group	Tiestall Pit (F				pring)		Tiestall Pit (F	all)		Tiestall Pit (S	pring)		Heifer Pit (Fa	all)	
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and e. Incorp after 7	small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay, s	2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporate	d after 7 days	grass hay,		spring use by nd small grain 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.25		0.10	0.35		0.10	0.25		0.10	0.35		0.10	0.25
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.								ų.	•
N Balanced Manure Rate (ton; gal/A)	36483	gal/A		41079	gal/A		69554	gal/A		51037	gal/A		2511	5 gal/A	
P Removal Balance Manure Rate		21163	gal/A		12209	gal/A		10465	gal/A		5465	gal/A		1423	1 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	105.0	Crop P Remo	val (lb/A)	90.0	Crop P Remo	val (lb/A)	47.0	Crop P Rem	oval (lb/A)	148.0
P Index Value		88			88										
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		5000	gal/A		5000	gal/A		900	0 gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	34	77	124	43	77	124	19	43	69	24	43	69	39	94	238
Nutrient Balance after Manure	105	-37	-124	155	-44	-248	246	87	261	222	44	192	70	-54	-28
Supplemental Fertilizer (lb/A)	105	0	0	155	0	0	0	0	0	222	0	0	70	0	0
P Index Application Method					•	•		•	•		•	•		•	•
Final Nutrient Balance (lb/A)	0	-37	-124	0	-44	-248				0	44	192	0	-54	-28
Multiple Application					1	ı	HV	/3.1 Multiple In	nitial	HV	V3.2 Multiple F	inal			1
Manure Utilized on CMU		63,000	gallons		63,000	gallons		15,000	gallons		15,000	) gallons		26,10	0 gallons

Show conversions to pare in Appendix 10  34	App. 4: Crop Yrs. 2024		M1			M2			M2			Orman1			Orman2	
Sol Toel Report Date	CMU/Field ID															
Submitted Name   Margorian	Acres															
Sel Test Levies (Methich-2) = A K   Segme   perm K   perm K   perm   perm K   perm		F		13	I		23	F		23	F		23	F		23
Slow conversions to pum in Appenials 10   34   56   6.1   54   56   6.1   55   6.2   22   22   62   62   74   74   74   74   74   74   74   7	Laboratory Name			T			T			ı			1		1	
No to Al Pier A   Result   No to Al Pier A   No to Al Pier A   No to Al Pier A   Special Prot.   Special Pro		l		· ·		- ''		+	- ''		1	- ''			- ''	pH
Part R Result				6.1			6.1			6.1			6.2			6.5
Confunct   Confus   Silage   Ro-cili   Silage   Ro-cili   Silage   Ro-cili   Silage   Confus   Silage   Ro-cili   Confus   Con		No			N			N				•		Sp		50ft
Part																
Post   Soil Test Recommendation (Ib3A)	<u>'</u>	Cori	- '		S			Cor	• '		Coi			Со	· · · · · · · · ·	
PSU Soil Teat Recommendation (IsVA)   200   80   220   120   40   210   200   80   220   230   130   140   230   110   11	Planned Yield		23	ton/A			ton/A		23	ton/A		200	bu/A		200	0 bu/A
User Soil Test Recommendation (Ib/A)	PSU Soil Test Recommendation (lb/A)															<b>K2O</b>
Chee Natifieries Applied (BVA)   Review of manure   Plander Applied (BVA)	User Soil Test Recommendation (Ib/A)	200		220	.20		2.0	200			200		1.10	200	1.0	
Double Crop CarryOver N (Ib/A)   23   Summer Double Crop   [23]   Winter Double Crop   23   Summer Double Crop   0   0	Other Nutrients Applied (lb/A)															
Manure History Description   Residual Manure N (Ib/A)   Description   Residual Manure N (Ib/A)   Description   Residual Legume N (Ib/A)   Description   Residual N (Ib/A)   Description   Residual Legume N (Ib/A)   Description   Residual N (Ib/A)   Description	P Index Application Method		•			•	•		•	•		•	•		•	•
Residual Manure N (tibA)   24   Double Crop   24   Double Crop   24   Double Crop   25   Frequently - Sulfiner History Description	Double Crop CarryOver N (lb/A)	23	Summer Doub	ole Crop	[23]	Winter Double	e Crop	23	Summer Doub	ole Crop	0			0		
Residual Legume N (biA)   153   26   192   96   40   210   153   26   192   210   130   140   210   110   11   110   1		24		- Summer	24		- Summer	24	,	- Summer	20	Frequently - S	Summer Crop	20	Frequently -	Summer Crop
Heifer Pit (Spring)		0		esidual N	0		lesidual N	0		esidual N	0			0		
Application Season: Management (Incorporation, cover crops, etc.)  Spring 1.2-12: Incorporated after 7 days  Sprin	Net Nutrients Required (lb/A)	153	26	192	96	40	210	153	26	192	210	130	140	210	110	110
Application Season: Management (Incorporation, cover crops, etc.)  Spring 1.2-12: Incorporated after 7 days slage. Incorp after 7	Manure Group	Heifer Pit (Sp	ring)		Heifer Pit (Fa	all)		Heifer Pit (Sp	oring)		Heifer Pit (Sp	ring)		Heifer Pit (Sp	oring)	
Availability Factors (Total N or NH4-N & Organic N)  0.10  0.35  0.10  0.25  0.10  0.35  0.10  0		Spring 1.2-1	2: Incorporated	l after 7 days	grass hay,	small grains and	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	Spring 1.2-1	2: Incorporated	d after 7 days	Spring 1.2-1	12: Incorporate	ed after 7 days
Clotal N or NH4-N & Organic N   O.10   O.35   O.10   O.25   O.10   O.35   O.		Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
N Balanced Manure Rate (ton; gal/A) 27176 gal/A 22120 gal/A 27176 gal/A 27176 gal/A 37300 gal/A 37300 gal/A 7692 gal/A 76			0.10	0.35		0.10	0.25		0.10	0.35		0.10	0.35		0.10	0.35
P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  Nutrients Applied at Planned Manure Rate (lb/A)  Supplemental Fertilizer (lb/A)  102  0  0  102  103  14231 gal/A  142	P Index Application Method					1	1		1		April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or i	ncorp > 1 wk.
(ton or gal/A; If required by P Index)  Crop P Removal (lb/A) 54.0  Crop P Removal (lb/A) 80.0  Crop P Removal (lb	N Balanced Manure Rate (ton; gal/A)	27176	gal/A		22120	gal/A		27176	gal/A		37300	gal/A		37300	gal/A	
(ton or gal/A; If required by P Index)  Crop P Removal (lb/A) 54.0  Crop P Removal (lb/A) 80.0  Crop P Removal (lb	P Removal Balance Manure Rate		5192	gal/A		14231	gal/A		5192	gal/A		7692	gal/A		7692	2 gal/A
P Index Value 24 30  Planned Manure Rate (ton or gal/A) 9000 gal/A 9000 gal/A 9000 gal/A 9000 gal/A 6000 gal/A 6000 gal/A  Nutrients Applied at Planned Manure Rate (lb/A) 51 94 238 39 94 238 51 94 238 34 62 158 34 62 15  Nutrient Balance after Manure 102 -68 -46 57 -54 -28 102 -68 -46 176 68 -18 176 48 -4  Supplemental Fertilizer (lb/A) 102 0 0 57 0 0 102 0 0 176 0 0 176 0 0  P Index Application Method		Crop P Remo	val (lb/A)	54.0	Crop P Remo			Crop P Remo	oval (lb/A)	54.0	Crop P Remo	val (lb/A)	80.0	Crop P Remo	oval (lb/A)	80.0
Nutrients Applied at Planned Manure Rate (lb/A) 51 94 238 39 94 238 51 94 238 34 62 158 34 62 158  Nutrient Balance after Manure 102 -68 -46 57 -54 -28 102 -68 -46 176 68 -18 176 48 -4  Supplemental Fertilizer (lb/A) 102 0 0 57 0 0 102 0 0 176 0 0 176 0 0  P Index Application Method	P Index Value	,	. ,					,			,	24			30	
Nutrients Applied at Planned Manure Rate (lb/A) 51 94 238 39 94 238 51 94 238 34 62 158 34 62 158  Nutrient Balance after Manure 102 -68 -46 57 -54 -28 102 -68 -46 176 68 -18 176 48 -4  Supplemental Fertilizer (lb/A) 102 0 0 57 0 0 102 0 0 176 0 0 176 0 0  P Index Application Method	Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		6000	gal/A		6000	) gal/A
Supplemental Fertilizer (lb/A)         102         0         0         57         0         0         102         0         0         176         0         0         176         0         0           P Index Application Method  .	Nutrients Applied at Planned Manure Rate (lb/A)	51	94	238	39	94	238	51	94	238	34	62	158	34	62	158
Supplemental Fertilizer (lb/A)         102         0         0         57         0         0         102         0         0         176         0         0         176         0         0           P Index Application Method	Nutrient Balance after Manure	102	-68	-46	57	-54	-28	102	-68	-46	176	68	-18	176	48	-48
P Index Application Method						0	<b>-</b>				<b>+</b>				-	0
		1	· ·	-		1	1			I	1	1	ı		1 -	1 -
		0	-68	-46	0	-54	-28	0	-68	-46	0	68	-18	0	48	-48
Multiple Application	, ,					1	1		1 22	1		1 30	1		1	1
Manure Utilized on CMU 26,100 gallons 63,900 gallons 63,900 gallons 105,000 gallons 98,400 gallons	Manure Utilized on CMU		26 100	gallons		63 900	gallons		63 900	gallons		105 000	gallons		98 400	) gallons

App. 4: Crop Yrs. 2024		Orman3			Orman4			Orman5	
CMU/Field ID									
Acres		9.3			3.0			2.0	
Soil Test Report Date	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23
Laboratory Name	_	Waypoint		_	Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)	ppm P	ppm K	pH	ppm P	ppm K	pН	ppm P	ppm K	pН
	9	52	6.7	9	52	6.7	9	52	6.7
P Index Part A Evaluation	Sp	ecial Prot. <15	OUT	Spe	ecial Prot. <15	υπ	Sp	ecial Prot. <15	υπ
Part A Result		Part B	em>		Part B			Part B	
Crop	Cor	n for Grain (N		Estab	lished Mixed G		Estab	lished Mixed G	
Planned Yield			bu/A			ton/A			ton/A
PSU Soil Test Recommendation (lb/A)	N 230	<b>P2O5</b> 140	<b>K2O</b> 130	N 300	<b>P2O5</b> 170	<b>K2O</b> 320	N 300	<b>P2O5</b>	<b>K2O</b> 320
User Soil Test Recommendation (lb/A)									
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)									
P Index Application Method									
Double Crop CarryOver N (lb/A)	0			0			0		
Manure History Description Residual Manure N (lb/A)	20	Frequently - S	Summer Crop	20	Frequently - S	Summer Crop	20	Frequently - S	Summer Crop
Legume History Description Residual Legume N (lb/A)	0			0			0		
Net Nutrients Required (lb/A)	210	140	130	280	170	320	280	170	320
Manure Group	Tiestall Pit (S	pring)		Tiestall Pit (S	pring)		Tiestall Pit (S	pring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporate	d after 7 days	Spring 1.2-1	2: Incorporated	d after 7 days	Spring 1.2-1	2: Incorporated	d after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.10	0.35		0.10	0.35
P Index Application Method	April - Oct:	No incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.
N Balanced Manure Rate (ton; gal/A)	43568	gal/A		58091	gal/A		58091	gal/A	
P Removal Balance Manure Rate			gal/A		10465	gal/A		10465	gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		80.0	Crop P Remo	val (lb/A)	90.0	Crop P Remo	val (lb/A)	90.0
P Index Value		23		·	23			23	
Planned Manure Rate (ton or gal/A)		6000	gal/A		6000	gal/A		6000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	29	52	83	29	52	83	29	52	83
Nutrient Balance after Manure	181	88	47	251	118	237	251	118	237
Supplemental Fertilizer (lb/A)	181	0	0	251	0	0	251	0	0
P Index Application Method	-	1		-					
Final Nutrient Balance (lb/A)	0	88	47	0	118	237	0	118	237
Multiple Application			1		1	1	-	1	1
	+	55,800					ļ		gallons

Laboratory Name  Soil Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)  P Index Part A Evaluation Part A Result Crop Small Grain Sil Planned Yield  PSU Soil Test Recommendation (lb/A) Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure) P Index Application Method Double Crop CarryOver N (lb/A) Legume History Description Residual Manure N (lb/A) Note Rutrients Required (lb/A) Note Rutrients Required (lb/A)  Note Rutrients Required (lb/A)  Manure Group  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N) P Index Value Planned Manure Rate (ton or gal/A) P Index Value Planned Manure Rate (ton or gal/A) P Index Value Planned Manure Rate (ton or gal/A) P Index Value Planned Manure Rate (ton or gal/A)  P Index Value Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Part A Evaluation No to All Part A  80  P pm P pmm K 44 80  No to All Part A 80  No to All Part A 80  Rabott Barn A 80  Papm P ppm K 44 80  No to All Part A 80  Rabott Barn A 80  Robott Barn Lagoon (Fall)  Early Fall 1.2-12: fall and grass hay, small grains ar silage. Incorp 0-2  Total N NH4-N  0.60  Crop P Removal (lb/A)  P Index Value	pH 6.9 age 0 ton/A		<b>K2O</b> 290 op	ppm P 90	2 11.8 ebruary 6, 2023 Waypoint ppm K 108 <150ft Part B nall Grain Silag 10 t P205 0	pH 6.8	ppm P 90	2 11.8 ebruary 6, 202: Waypoint ppm K 108 <150ft Part B for Silage (No. 28 P205 0	pH 6.8	ppm P 135 No		pH 6.4
Acres	pH 6.9 age 0 ton/A	February 6, 2023   February 6, 2023	6.9 K2O 290	ppm P 90 Sm	waypoint ppm K 108 <150ft Part B nall Grain Silag 10 t P205	pH 6.8 e on/A <b>K2O</b>	ppm P 90 Corr	waypoint ppm K 108 <150ft Part B for Silage (No. 28 P205	pH 6.8 p-till) ton/A	ppm P 135 No	ebruary 6, 202: Waypoint ppm K 77 o to All Part A N Based mall Grain Silag	pH 6.4
Laboratory Name  Soil Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)  P Index Part A Evaluation Part A Result  Crop  Planned Yield  PSU Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Legume History Description Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Net Nutrients Required (lb/A)  Net Nutrients Required (lb/A)  Legume History Description Residual Legume N (lb/A)  Manure Group  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  9006	pH 6.9 age 0 ton/A	Waypoint   Waypoint	6.9 K2O 290	ppm P 90 Sm	Waypoint ppm K 108 <150ft Part B hall Grain Silag 10 t P205	pH 6.8 e on/A <b>K2O</b>	ppm P 90 Corr	Waypoint ppm K 108 <150ft Part B for Silage (No 28	pH 6.8 p-till) ton/A	ppm P 135 No	Waypoint ppm K 77 o to All Part A N Based mall Grain Silag	pH 6.4
Soil Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)  P Index Part A Evaluation Part A Result Crop Small Grain Sil Planned Yield  PSU Soil Test Recommendation (lb/A) Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure) P Index Application Method Double Crop CarryOver N (lb/A) Legume History Description Residual Legume N (lb/A) Net Nutrients Required (lb/A) Net Nutrients Required (lb/A) Net Nutrients Required (lb/A)  No to All Part A	6.9 age 0 ton/A K20 280	Descriptions   Desc	6.9 K2O 290	90 Sm	ppm K 108 <150ft Part B nall Grain Silag 10 t	6.8 e on/A K2O	90 Corr	ppm K 108 <150ft Part B for Silage (No	6.8 b-till)	135 No	ppm K 77 o to All Part A N Based mall Grain Silag	6.4 ge
(Show conversions to ppm in Appendix 10)  P Index Part A Evaluation Part A Result Crop Small Grain Sil Planned Yield PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Net Nutrients Applied (lb/A)  Net Napplication Method  Nesidual Manure N (lb/A)  Manure Group  Robot Barn Lagoon (Fall)  Early Fall 1.2-12: fall and grass hay, small grains at silage. Incorp 0-2  Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	6.9 age 0 ton/A K20 280	10	6.9 K2O 290	90 Sm	108 <150ft Part B nall Grain Silag 10 t	6.8 e on/A K2O	90 Corr	108 <150ft Part B for Silage (No 28	6.8 b-till)	135 No	77 o to All Part A N Based mall Grain Silag	6.4 ge
P Index Part A Evaluation Part A Result  Crop Small Grain Sit Planned Yield  PSU Soil Test Recommendation (lb/A) Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure) P Index Application Method Double Crop CarryOver N (lb/A)  Legume History Description Residual Legume N (lb/A) Net Nutrients Required (lb/A) No Legume History Description Residual Legume N (lb/A) No Legume History Description Residual Legume N (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N) P Index Application Method N Balanced Manure Rate (ton; gal/A) P Removal Balance Manure Rate (ton or gal/A; If required by P Index) P Index Value Planned Manure Rate (ton or gal/A)  9006	age 0 ton/A K2O 280 e Crop	No to All Part A   No to All Part A   No to All Part A   N Based   Small Grain Silage   Corn for Silage (No-till)	<b>K2O</b> 290	Sm	<150ft Part B hall Grain Silag 10 t	e on/A K2O	Corr	<150ft Part B for Silage (No. 28 P205	o-till) ton/A	No Sr	o to All Part A N Based mall Grain Silaç 10	ge
Part A Result Crop Small Grain Sil Planned Yield PSU Soil Test Recommendation (lb/A) User Soil Test Recommendation (lb/A) Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure) P Index Application Method Double Crop CarryOver N (lb/A) Manure History Description Residual Manure N (lb/A) Legume History Description Residual Legume N (lb/A) Net Nutrients Required (lb/A) Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N) P Index Application Method N Balanced Manure Rate (ton; gal/A) P Removal Balance Manure Rate (ton or gal/A; If required by P Index) Planned Manure Rate (ton or gal/A) P Index Value Planned Manure Rate (ton or gal/A)  9006	0 ton/A	N Based   N Based   Small Grain Silage   Corn for Silage (No-till)	<b>K2O</b> 290 op	N	Part B nall Grain Silag 10 t	on/A K2O	N	Part B for Silage (No 28 P205	ton/A	Sr	N Based mall Grain Silaç 10	
Crop Small Grain Sil Planned Yield 10 PSU Soil Test Recommendation (lb/A) 150 20 User Soil Test Recommendation (lb/A) 170 20 User Soil Test Recommendation	0 ton/A	Small Grain Silage	<b>K2O</b> 290 op	N	nall Grain Silag 10 t P2O5	on/A K2O	N	for Silage (No 28 P2O5	ton/A		mall Grain Silaç	
Planned Yield  PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  Planned Manure Rate (ton or gal/A)  9000	0 ton/A	10 ton/A 28 ton/A  N P205 K20 N P205 K  150 20 280 240 30 2  [27] Winter Double Crop 27 Summer Double Cro  Continuously, Winter	<b>K2O</b> 290 op	N	10 t	on/A K2O	N	28 P2O5	ton/A		10	
PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A)  Other Nutrients Applied (lb/A)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9006	<b>K20</b> 280  e Crop	N P205 K20 N P205 K 150 20 280 240 30 2  [27] Winter Double Crop 27 Summer Double Cro	<b>K2O</b> 290 op		P2O5	K20		P2O5				
PSU Soil Test Recommendation (lb/A)  User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9006	280 e Crop	150 20 280 240 30 2  [27] Winter Double Crop 27 Summer Double Cro	290						K20	A.	1	ton/A
User Soil Test Recommendation (lb/A)  Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	e Crop	[27] Winter Double Crop 27 Summer Double Cro	ор	150	0	230	240	0		N	P2O5	K20
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  9000		[27] Winter Double Crop 27 Summer Double Cro							240	150	0	280
(Nutrients applied regardless of manure)  P Index Application Method  Double Crop CarryOver N (Ib/A)  Manure History Description Residual Manure N (Ib/A)  Legume History Description Residual Legume N (Ib/A)  Net Nutrients Required (Ib/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  P Removal Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9000		[27] Winter Double Crop 27 Summer Double Cro										-
Double Crop CarryOver N (lb/A)  Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Not Legume I (look)  Not Legume I (look)  Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Manure Group  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9000		Continuously Winter Continuously Summ										·
Manure History Description Residual Manure N (lb/A)  Legume History Description Residual Legume N (lb/A)  Not Legume History Description Residual Legume N (lb/A)  Not Nutrients Required (lb/A)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  Planned Manure Rate (ton or gal/A)  Planned Manure Rate (ton or gal/A)  9000		Continuously Winter Continuously Summ								· 		
Residual Manure N (Ib/A)  Legume History Description Residual Legume N (Ib/A)  Not Legume I Credit  139  20  Robot Barn Lagoon (Fall)  Application Season: Management (Incorporation, cover crops, etc.)  Early Fall 1.2-12: fall and grass hay, small grains at silage. Incorp 0-2  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	- Winter	Continuously - Winter Continuously - Sumr		[27]	Winter Double	Crop	27	Summer Doub	le Crop	[27]	Winter Double	Crop
Residual Legume N (lb/A)  Net Nutrients Required (lb/A)  Manure Group  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9000		11 Double Crop 24 Double Crop	nmer		Continuously - Double Crop	Winter	24	Continuously - Double Crop	- Summer	11	Continuously - Double Crop	Winter
Manure Group  Robot Barn Lagoon (Fall)  Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	Residual N	0 No Legume Residual N Oredit No Legume Residual Credit	al N	0			0	No Legume Re Credit	esidual N	0	No Legume Re Credit	esidual N
Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	280	139 20 280 189 -29 3	397	139	0	230	189	-79	297	139	0	280
Application Season: Management (Incorporation, cover crops, etc.)  Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method N Balanced Manure Rate (ton; gal/A) P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value Planned Manure Rate (ton or gal/A)  9000		Robot Barn Lagoon (Fall) Robot Barn Lagoon (Spring)	Ro	tobot Barn La	goon (Fall)		Robot Barn La	goon (Spring)		Robot Barn La	agoon (Fall)	
Availability Factors (Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	id small grain	rporation, Early Fall 1.2-12: fall and spring use by grass hay, small grains and small grain silage. Incorp 0-2 days		grass hay, sn	-12: fall and sp nall grains and e. Incorp 0-2 da	small grain	Spring 1.2-12	Incorporated t	the same day	grass hay, s	2-12: fall and s mall grains and ge. Incorp 0-2 d	d small grain
(Total N or NH4-N & Organic N)  P Index Application Method  N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  9000	Org. N	Total N NH4-N Org. N Total N NH4-N Or	rg. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
N Balanced Manure Rate (ton; gal/A)  P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  11642 gal/A  Crop P Removal (lb/A)  9000	0.25	0.60 0.25 0.80 0.	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Removal Balance Manure Rate (ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  2068;  Crop P Removal (lb/A)  9000				Sta	arter or Injected	t	St	arter or Injecte	ed			
(ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  Crop P Removal (lb/A)  9000		11642 gal/A 11688 gal/A		11642 (	gal/A		11688	gal/A		11642	gal/A	
(ton or gal/A; If required by P Index)  P Index Value  Planned Manure Rate (ton or gal/A)  Crop P Removal (lb/A)  P modern P Removal (lb/A)  9000	gal/A	20682 gal/A 11705 gal/A			20682 g	jal/A		11705	gal/A		20682	gal/A
Planned Manure Rate (ton or gal/A) 9000	182.0			rop P Remov			Crop P Remov	al (lb/A)	103.0	Crop P Remov	val (lb/A)	182.0
, ,					42			42		<del></del>		
Nutriente Applied et Dienned Menure Dete (Ib/A) 107 70		9000 gal/A 9000 gal/A	١		9000 g	jal/A		9000	gal/A	·	9000	gal/A
Nutrients Applied at Planned Manure Rate (Ib/A) 107 79	gal/A	ate (Ib/A) 107 79 173 145 79 1	173	107	79	173	145	79	173	107	79	173
Nutrient Balance after Manure 32 -59	·	32 -59 107 44 -108 2	224	32	-79	57	44	-158	124	32	-79	107
Supplemental Fertilizer (lb/A) 32 0	173	32 0 0 44 0	0	32	0	0	44	0	0	32	0	0
P Index Application Method	173			L.								-
Final Nutrient Balance (lb/A) 0 -59	173 107			0	-79	57	0	-158	124	0	-79	107
Multiple Application	173 107		224				<u> </u>					
Manure Utilized on CMU 490,500	173 107 0		224								180,000	

App. 4: Crop Yrs. 2025		3			4			4			5			5	
CMU/Field ID															
Acres		20.0			10.5			10.5			18.7			18.7	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23	ı	ebruary 6, 202	23
Laboratory Name		Waypoint			Waypoint	,		Waypoint	,		Waypoint			Waypoint	1
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	135	77	6.4	90	108	6.8	90	108	6.8	43	73	6.9	43	73	6.9
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	o to All Part A		N	o to All Part A		N	o to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Con	n for Silage (No		S	Small Grain Sila	•	Cor	n for Silage (N		S	mall Grain Sila	•	Cor	n for Silage (N	<u> </u>
Planned Yield		28	ton/A		10	ton/A		28	ton/A		10	ton/A		28	ton/A
PSU Soil Test Recommendation (lb/A)	N O40	<b>P2O5</b>	K2O	N 450	P2O5	K2O	N O40	P2O5	K2O	N 450	P2O5	K2O	N O40	P2O5	K2O
U 0 17 18 15 (UA)	240	U	290	150	0	230	240	0	240	150	20	280	240	30	290
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	27	Summer Doub	le Crop	[27]	Winter Double	e Crop	27	Summer Doub	ole Crop	[27]	Winter Double	e Crop	27	Summer Doul	ble Crop
Manure History Description Residual Manure N (lb/A)	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	0	0 No Legume Residual N Credit 189 -79 397		0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	lesidual N	0	No Legume R Credit	Residual N
Net Nutrients Required (lb/A)	189	-79	397	139	0	230	189	-79	297	139	20	280	189	-29	397
Manure Group	Robot Barn La	agoon (Spring)		Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring	)
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay, s	.2-12: fall and s small grains and ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay, s	2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35
P Index Application Method		1			-							1		1	
N Balanced Manure Rate (ton; gal/A)	11688	gal/A		11642	gal/A		11688	gal/A		11642	gal/A		11688	gal/A	
P Removal Balance Manure Rate		11705	gal/A		20682	gal/A		11705	gal/A		20682	gal/A		11705	gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		103.0	Crop P Remo		182.0	Crop P Remo	val (lb/A)	103.0	Crop P Remo		182.0	Crop P Remo	oval (lb/A)	103.0
P Index Value		( ' /		'	( ' '			( ' '						( ' '	
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	145	79	173	107	79	173	145	79	173	107	79	173	145	79	173
Nutrient Balance after Manure	44	-158	224	32	-79	57	44	-158	124	32	-59	107	44	-108	224
Supplemental Fertilizer (lb/A)	44	0	0	32	0	0	44	0	0	32	0	0	44	0	0
P Index Application Method		ı			ı	ı		ı	ı	"-	ı	ı		ı	ı
Final Nutrient Balance (lb/A)	0	-158	224	0	-79	57	0	-158	124	0	-59	107	0	-108	224
Multiple Application		-100	224	0	-13	37	U	-130	124		-03	107		-100	224
Manure Utilized on CMU	1	180,000	gallons		94,500	gallone		94,500	gallone		168,300	gallone		168,300	nallone
INIGITATE OUITZEA OTI CIVIO	1	100,000	galions	<u> </u>	34,500	ganons	1	34,500	galions	l	100,000	galiulis	l	100,300	yanuns

App. 4: Crop Yrs. 2025		6			6			7			7			8	
CMU/Field ID	1	· ·			ŭ			•						· ·	
Acres		19.0			19.0			14.5			14.5			12.5	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23		February 6, 20	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	75	145	6.5	75	145	6.5	90	108	6.8	90	108	6.8	81	84	6.6
P Index Part A Evaluation	No	to All Part A		N	o to All Part A		N	o to All Part A		N	o to All Part A		١	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Si	mall Grain Sila	ge	Cor	n for Silage (No	o-till)	S	mall Grain Sila	ige	Cor	n for Silage (N	lo-till)	5	Small Grain Sila	age
Planned Yield		10	ton/A		28	ton/A		10	ton/A		28	3 ton/A		10	0 ton/A
BOLLO 117 (B)	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O
PSU Soil Test Recommendation (lb/A)	150	0	130	240	0	130	150	0	230	240	0	240	150	0	270
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	[27]	Winter Double	Crop	27	Summer Doub	ole Crop	[27]	Winter Double	e Crop	27	Summer Dou	ble Crop	[27]	Winter Doub	le Crop
Manure History Description Residual Manure N (lb/A)	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop		11	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	0			0	No Legume R Credit	esidual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)			189	-79	87	139	0	230	189	-79	297	139	0	270	
Manure Group			Robot Barn L	agoon (Spring)	)	Robot Barn L	agoon (Fall)		Robot Barn L	agoon (Spring	)	Robot Barn I	agoon (Fall)		
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and ge. Incorp 0-2 o	small grain	Spring 1.2-12	l: Incorporated	the same day	grass hay, s	2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	I the same day	grass hay,	.2-12: fall and small grains ar age. Incorp 0-2	nd small grain
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Index Application Method		•			•				•						·
N Balanced Manure Rate (ton; gal/A)	11642	gal/A		11688	gal/A		11642	gal/A		11688	gal/A		1164	2 gal/A	
P Removal Balance Manure Rate		20682	gal/A		11705	gal/A		20682	gal/A		11705	gal/A		20682	2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	103.0	Crop P Remo	val (lb/A)	182.0	Crop P Remo	oval (lb/A)	103.0	Crop P Rem	oval (lb/A)	182.0
P Index Value															
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	107	79	173	145	79	173	107	79	173	145	79	173	107	79	173
Nutrient Balance after Manure	32	-79	-43	44	-158	-86	32	-79	57	44	-158	124	32	-79	97
Supplemental Fertilizer (lb/A)	32	0	0	44	0	0	32	0	0	44	0	0	32	0	0
P Index Application Method		-			•	•		•	•		•	•		•	•
Final Nutrient Balance (lb/A)	0	-79	-43	0	-158	-86	0	-79	57	0	-158	124	0	-79	97
Multiple Application					1	1		1	1					_1	_1
Manure Utilized on CMU		171,000	gallons		171,000	gallons		130,500	gallons		130,500	) gallons		112,500	) gallons

App. 4: Crop Yrs. 2025		8			30			30			P1			P2	
CMU/Field ID															
Acres		12.5			1.4			1.4			2.0			10.0	
Soil Test Report Date	F	ebruary 6, 202	3	E	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23		February 6, 20	123
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	81	84	6.6	81	84	6.6	81	84	6.6	111	182	6.7	111	182	6.7
P Index Part A Evaluation	Ne	to All Part A		N	o to All Part A		N	o to All Part A			<150ft			<150ft	
Part A Result		N Based			N Based			N Based			Part B			Part B	
Crop	Con	n for Silage (No	o-till)	S	mall Grain Sila	ge	Cor	n for Silage (N	o-till)	Established	d Pasture (with	out legume)	Establishe	ed Pasture (wit	hout legume)
Planned Yield		28	ton/A		10	ton/A		28	ton/A		3	ton/A		:	3 ton/A
PSU Soil Test Recommendation (lb/A)	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20
P30 30ii Test Reconfinendation (ib/A)	240	0	280	150	0	270	240	0	280	150	0	10	150	0	10
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	27	Summer Doub	le Crop	[18]	Winter Double	e Crop	18	Summer Doul	ble Crop	0			0		
Manure History Description Residual Manure N (lb/A)	24	Continuously - Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	35	Continuously Crop	- Summer	35	Continuously Crop	/ - Summer
Legume History Description Residual Legume N (lb/A)	0   No Legume Residual N   Credit   189   -79   377			0	No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	Residual N	0	No Legume Credit	Residual N
Net Nutrients Required (lb/A)			139	0	270	198	-77	426	115	0	10	115	0	10	
Manure Group				Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Field P1 - Gra	azing Calculato	or	Field P2 - Gr	azing Calcula	tor
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay, s	2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	-	nytime with nut ng growing se		-	nytime with nu ring growing se	
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.10	0.25		0.10	0.35	0.20			0.20		
P Index Application Method		,			Į.	ļ				April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or i	ncorp > 1 wk.
N Balanced Manure Rate (ton; gal/A)	11688	gal/A		36483	gal/A		41079	gal/A		63.9	tons/A		63.9	9 tons/A	
P Removal Balance Manure Rate		11705	gal/A		21163	gal/A		12209	gal/A		15	tons/A		1	5 tons/A
(ton or gal/A; If required by P Index)	Crop P Remo		103.0	Crop P Remo		182.0	Crop P Remo		105.0	Crop P Remo	val (lb/A)	45.0	Crop P Rem	oval (lb/A)	45.0
P Index Value					, ,		,			,	26			26	
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		5.82	tons/A		5.82	2 tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	145	79	173	34	77	124	43	77	124	10	17	41	10	17	41
Nutrient Balance after Manure	44	-158	204	105	-77	146	155	-154	302	105	-17	-31	105	-17	-31
Supplemental Fertilizer (lb/A)	44	0	0	105	0	0	155	0	0	105	0	0	105	0	0
P Index Application Method		1				1		1	1		1				1
Final Nutrient Balance (lb/A)	0	-158	204	0	-77	146	0	-154	302	0	-17	-31	0	-17	-31
Multiple Application				-	1	1					I	1		1	1
Manure Utilized on CMU		112,500	gallons		12,600	gallons		12.600	gallons		12	tons		5	B tons
<u> </u>		-,-50	•		.=,:30	· -	ı	.=,	<u> </u>	<u> </u>			1	•	

App. 4: Crop Yrs. 2025		P3			P4			CF5			CF5			CF6	
CMU/Field ID															
Acres		6.0			6.0			3.0			3.0			7.5	
Soil Test Report Date	F	ebruary 6, 202	3	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23		February 6, 20	23
Laboratory Name		Waypoint			Waypoint			Waypoint			Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	111	182	6.7	111	182	6.7	96	57	7.1	96	57	7.1	96	57	7.1
P Index Part A Evaluation		<150ft			<150ft			<150ft			<150ft		N	lo to All Part A	
Part A Result		Part B			Part B			Part B			Part B			N Based	
Crop	Established	Pasture (with		Established	d Pasture (with		S	mall Grain Sila		Cor	n for Silage (N		\$	Small Grain Sila	
Planned Yield		3	ton/A		3	ton/A		10	ton/A		28	ton/A		10	ton/A
PSU Soil Test Recommendation (lb/A)	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
1 00 0011 Test Neconinionation (ID/A)	150	0	10	150	0	10	150	0	300	240	0	320	150	0	300
User Soil Test Recommendation (lb/A)			-									]			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	0			0			[20]	Winter Double	e Crop	20	Summer Doul	ble Crop	[20]	Winter Doubl	le Crop
Manure History Description Residual Manure N (lb/A)	35	Continuously Crop	- Summer	35	Continuously Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter
Legume History Description Residual Legume N (lb/A)	0		0	No Legume R Credit	tesidual N	0	No Legume R Credit	Residual N	0	No Legume R Credit	Residual N	0	No Legume F Credit	Residual N	
Net Nutrients Required (lb/A)	115	0	10	115	0	10	139	0	300	196	-29	589	139	0	300
Manure Group	Field P3 - Gra			Field P4 - Gra	azing Calculato	or	Pen Pack			Pen Pack			Pen Pack		
Application Season: Management (Incorporation, cover crops, etc.)	-	ytime with nutr		-	nytime with nutring growing sea		grass hay, s	2-12: fall and s small grains an e. Incorp after	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay,	.2-12: fall and small grains and e. Incorp after	nd small grain
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)	0.20			0.20				0.10	0.25		0.10	0.35		0.10	0.25
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.			1
N Balanced Manure Rate (ton; gal/A)	57.5	tons/A		57.5	tons/A		51.3	tons/A		53.1	tons/A		51.3	3 tons/A	
P Removal Balance Manure Rate		15	tons/A		15	tons/A		62.8	tons/A		52.8	tons/A		62.8	3 tons/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	45.0	Crop P Remo	val (lb/A)	45.0	Crop P Remo	val (lb/A)	182.0	Crop P Remo	val (lb/A)	153.0	Crop P Rem	oval (lb/A)	182.0
P Index Value	,	46			46		,	45			45			, ,	
Planned Manure Rate (ton or gal/A)		20.56	tons/A		20.56	tons/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	41	62	144	41	62	144	27	29	31	37	29	31	27	29	31
Nutrient Balance after Manure	74	-62	-134	74	-62	-134	112	-29	269	159	-58	558	112	-29	269
Supplemental Fertilizer (lb/A)	74	0	0	74	0	0	112	0	0	159	0	0	112	0	0
P Index Application Method		1			1	1						1		1	1
Final Nutrient Balance (lb/A)	0	-62	-134	0	-62	-134	0	-29	269	0	-58	558	0	-29	269
Multiple Application		, <u> </u>		-		1			1		1	1.00			
Manure Utilized on CMU		123	tons		123	tons		30	tons	1	30	tons		75	tons
				l .	.=-		l .			L			L		

App. 4: Crop Yrs. 2025		CF6			CF7			CF7			CF9			CF9	
CMU/Field ID															
Acres		7.5			7.0			7.0			3.0			3.0	
Soil Test Report Date	F	ebruary 6, 202	3	ı	ebruary 6, 202	23	F	ebruary 6, 202	23	ı	February 6, 202	23	1	February 6, 202	23
Laboratory Name		Waypoint			Waypoint			Waypoint	,		Waypoint			Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	96	57	7.1	96	57	7.1	96	57	7.1	96	57	7.1	96	57	7.1
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	o to All Part A		N	lo to All Part A		N	lo to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Con	n for Silage (No	o-till)	S	Small Grain Sila	ige	Cor	n for Silage (N	o-till)	S	Small Grain Sila	age	Co	rn for Silage (N	lo-till)
Planned Yield		28	ton/A		10	ton/A		28	ton/A		10	ton/A		28	ton/A
PSU Soil Test Recommendation (lb/A)	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O
	240	0	320	150	0	300	240	0	320	150	0	300	240	0	320
User Soil Test Recommendation (lb/A)															
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	20	Summer Doub	le Crop	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	[20]	Winter Doubl	e Crop	20	Summer Dou	ble Crop
Manure History Description Residual Manure N (lb/A)	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop		24	Continuously Double Crop	
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	esidual N	0	No Legume F Credit	Residual N	0	No Legume F Credit	Residual N
Net Nutrients Required (lb/A)	196	-29	589	139	0	300	198	-77	496	139	0	300	196	-29	589
Manure Group	Pen Pack			Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Pen Pack			Pen Pack		
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporated	after 7 days	grass hay,	.2-12: fall and s small grains and ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay,	.2-12: fall and s small grains an e. Incorp after	nd small grain	Spring 1.2-	12: Incorporate	d after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.60	0.25		0.80	0.35		0.10	0.25		0.10	0.35
P Index Application Method		1			-	1		1			1	1			1
N Balanced Manure Rate (ton; gal/A)	53.1	tons/A		13614	l gal/A		14369	gal/A		51.3	3 tons/A		53.1	1 tons/A	
P Removal Balance Manure Rate		52.8	tons/A		21163	gal/A		12209	gal/A		62.8	3 tons/A		52.8	tons/A
(ton or gal/A; If required by P Index)	Crop P Remo		153.0	Crop P Remo	oval (lb/A)	182.0	Crop P Remo	oval (lb/A)	105.0	Crop P Remo		182.0	Crop P Remo	oval (lb/A)	153.0
P Index Value		( ' /			( ' '						( ' )			( ' )	
Planned Manure Rate (ton or gal/A)	†	10	tons/A		9000	gal/A		9000	gal/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	37	29	31	92	77	124	124	77	124	27	29	31	37	29	31
Nutrient Balance after Manure	159	-58	558	47	-77	176	74	-154	372	112	-29	269	159	-58	558
Supplemental Fertilizer (lb/A)	159	0	0	47	0	0	74	0	0	112	0	0	159	0	0
P Index Application Method	100		<u> </u>				1,1		L "	112			100	1 "	
Final Nutrient Balance (lb/A)	0	-58	558	0	-77	176	0	-154	372	0	-29	269	0	-58	558
Multiple Application	0	-30	330		-11	176	-	-134	312	-	-29	203	0	-30	550
Manure Utilized on CMU		75	tons		63,000	gallone		63,000	gallons		30	) tons		30	) tons
INIGITATE OUILZED ON CIVIO		73	tolio		00,000	galions	<u> </u>	00,000	galions		30	, 10113	l	30	UIIS

App. 4: Crop Yrs. 2025		S1			S1			S2-S4			S2-S4			S5	
CMU/Field ID															
Acres		12.0			12.0			24.0			24.0			4.5	
Soil Test Report Date	F	ebruary 6, 202	13	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	February 6, 202	23	I	ebruary 6, 202	23
Laboratory Name		Waypoint	T		Waypoint	ı		Waypoint	I		Waypoint			Waypoint	ı
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	141	88	6.6	141	88	6.6	91	102	6.5	91	102	6.5	36	98	6.6
P Index Part A Evaluation	No	to All Part A		N	o to All Part A		N	o to All Part A		N	lo to All Part A		N	o to All Part A	
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Sı	mall Grain Sila	•	Cor	n for Silage (N		S	mall Grain Sila		Cor	n for Silage (N		5	Small Grain Sila	•
Planned Yield			ton/A			ton/A			ton/A			ton/A			ton/A
PSU Soil Test Recommendation (lb/A)	N 150	<b>P2O5</b>	<b>K2O</b> 270	N 240	<b>P2O5</b>	<b>K2O</b> 280	N 150	<b>P2O5</b>	<b>K2O</b> 230	N 240	<b>P2O5</b>	<b>K2O</b> 240	N 150	<b>P2O5</b>	<b>K2O</b> 260
User Soil Test Recommendation (lb/A)		-			-			-							
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	[18]	Winter Double	e Crop	18	Summer Doub	ble Crop	[23]	Winter Double	e Crop
Manure History Description Residual Manure N (lb/A)	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	11	Continuously Double Crop	- Winter
Legume History Description Residual Legume N (lb/A)	0 No Legume Residual N Credit 139 0 270			0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	Residual N	0	No Legume R Credit	esidual N
Net Nutrients Required (lb/A)	139	0	270	198	-77	426	139	0	230	198	-77	346	139	40	260
Manure Group			Tiestall Pit (S	Spring)		Tiestall Pit (F	all)		Tiestall Pit (S	Spring)		Heifer Pit (Fa	ıll)		
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay, s	2-12: fall and s small grains an ge. Incorp 0-2	d small grain	Spring 1.2-12	2: Incorporated	the same day	grass hay,	.2-12: fall and s small grains an ge. Incorp 0-2	d small grain
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.60	0.25		0.80	0.35		0.60	0.25		0.80	0.35		0.60	0.25
P Index Application Method					1									1	
N Balanced Manure Rate (ton; gal/A)	13614	gal/A		14369	gal/A		13614	gal/A		14369	gal/A		14055	gal/A	
P Removal Balance Manure Rate		21163	gal/A		12209	gal/A		21163	gal/A		12209	gal/A		17500	gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo		105.0	Crop P Remo		182.0	Crop P Remo	oval (lb/A)	105.0	Crop P Remo	oval (lb/A)	182.0
P Index Value	·	, ,			, ,			, ,		,	, ,		,	, ,	
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	92	77	124	124	77	124	92	77	124	124	77	124	89	94	238
Nutrient Balance after Manure	47	-77	146	74	-154	302	47	-77	106	74	-154	222	50	-54	22
Supplemental Fertilizer (lb/A)	47	0	0	74	0	0	47	0	0	74	0	0	50	0	0
P Index Application Method	•	ı	-		1	I		1	I		1 -	ı		1 -	
		77	146	0	-154	302	0	-77	106	0	-154	222	0	-54	22
Final Nutrient Dalance (ID/A)	0 -77 146														
Final Nutrient Balance (lb/A)  Multiple Application	0	-11	140				-	1							

App. 4: Crop Yrs. 2025		S5			S6			S6			<b>S</b> 7			<b>S</b> 7	
CMU/Field ID															
Acres		4.5			4.0			4.0			9.5			9.5	
Soil Test Report Date	F	ebruary 6, 202	3	I	ebruary 6, 202	23	F	ebruary 6, 202	23	F	ebruary 6, 202	23	I	February 6, 20	)23
Laboratory Name		Waypoint			Waypoint	I		Waypoint	I		Waypoint	T		Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	36	98	6.6	36	98	6.6	36	98	6.6	36	98	6.6	36	98	6.6
P Index Part A Evaluation	No	o to All Part A		N	lo to All Part A		N	o to All Part A		N	o to All Part A		N	lo to All Part A	\
Part A Result		N Based			N Based			N Based			N Based			N Based	
Crop	Cori	n for Silage (No		S	Small Grain Sila	•	Cor	n for Silage (N		S	mall Grain Sila		Coi	n for Silage (I	
Planned Yield		28	ton/A		10	ton/A		28	ton/A		10	ton/A		2	8 ton/A
PSU Soil Test Recommendation (lb/A)	N 240	<b>P2O5</b> 70	<b>K2O</b> 260	<b>N</b> 150	<b>P2O5</b>	<b>K2O</b> 260	N 240	<b>P2O5</b>	<b>K2O</b> 260	N 150	<b>P2O5</b>	<b>K2O</b> 260	N 240	<b>P2O5</b>	<b>K2O</b> 260
User Soil Test Recommendation (lb/A)	240	70	200	130	40	200	240	70	200	130	40	200	240	70	200
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method					·	I			I		1			1	
Double Crop CarryOver N (lb/A)	23	Summer Doub	ole Crop	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	[23]	Winter Doubl	e Crop	23	Summer Dou	uble Crop
Manure History Description Residual Manure N (Ib/A)	24	Continuously Double Crop		11	Continuously Double Crop		24	Continuously Double Crop	· ·	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	y - Summer
Legume History Description Residual Legume N (lb/A)	0	No Legume Residual N Credit  193 16 282		0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume R	Residual N	0	No Legume Credit	Residual N
Net Nutrients Required (lb/A)	193	16	282	139	40	260	198	33	396	139	40	260	193	16	282
Manure Group	Heifer Pit (Sp	ring)		Tiestall Pit (F	all)		Tiestall Pit (S	pring)		Heifer Pit (Fa	ll)		Heifer Pit (Sp	oring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-12	: Incorporated	the same day	grass hay,	.2-12: fall and s small grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay, s	.2-12: fall and s small grains an e. Incorp after	d small grain	Spring 1.2-1	12: Incorporate	ed after 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.80	0.35		0.10	0.25		0.10	0.35		0.10	0.25		0.10	0.35
P Index Application Method		1			-									1	-
N Balanced Manure Rate (ton; gal/A)	14403	gal/A		36483	3 gal/A		41079	gal/A		32028	gal/A		34281	I gal/A	
P Removal Balance Manure Rate		8462	gal/A		21163	gal/A		12209	gal/A		17500	gal/A		846	2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		88.0	Crop P Remo		182.0	Crop P Remo		105.0	Crop P Remo		182.0	Crop P Remo		88.0
P Index Value													,		
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		9000	gal/A		9000	0 gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	121	94	238	34	77	124	43	77	124	39	94	238	51	94	238
Nutrient Balance after Manure	72	-78	44	105	-37	136	155	-44	272	100	-54	22	142	-78	44
Supplemental Fertilizer (lb/A)	72	0	0	105	0	0	155	0	0	100	0	0	142	0	0
P Index Application Method		ı			ı	ı		ı	ı	1.00	ı	ı	l		
Final Nutrient Balance (lb/A)	0	-78	44	0	-37	136	0	-44	272	0	-54	22	0	-78	44
Multiple Application	•	-70	7*	0	51	130		-44	212		-04			-10	1 44
manapio / ippiioution															

App. 4: Crop Yrs. 2025		C2			C2			HW3			HW3			M1	
CMU/Field ID															
Acres		7.0			7.0			3.0			3.0			2.9	
Soil Test Report Date	F	ebruary 6, 202	23	F	ebruary 6, 202	23	F	February 6, 202	23	F	ebruary 6, 202	23		February 6, 20	023
Laboratory Name		Waypoint	I		Waypoint	I		Waypoint	T		Waypoint	T		Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	40	219	6.6	40	219	6.6	20	45	6.3	20	45	6.3	34	95	6.1
P Index Part A Evaluation		Special Prot.			Special Prot.		N	lo to All Part A		N	o to All Part A		٨	lo to All Part A	١
Part A Result		Part B			Part B			N Based			N Based			N Based	
Crop	S	mall Grain Sila	•	Cor	n for Silage (No		Estab	lished Mixed G		Estab	lished Mixed G		8	Small Grain Si	
Planned Yield		10	ton/A		28	ton/A		. 6	ton/A		. 6	ton/A			8 ton/A
PSU Soil Test Recommendation (lb/A)	N 150	<b>P2O5</b>	<b>K2O</b>	N 240	<b>P2O5</b>	<b>K2O</b>	N 300	<b>P2O5</b>	<b>K2O</b> 330	N 300	<b>P2O5</b>	<b>K2O</b> 330	N 120	<b>P2O5</b>	<b>K2O</b> 210
User Soil Test Recommendation (lb/A)	100	70	0	240	70	0	300	100	330	300	130	330	120	40	210
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method		ı	I			l		1				1		_L	
Double Crop CarryOver N (lb/A)	[18]	Winter Double	e Crop	18	Summer Doub	ole Crop	0			0			[23]	Winter Doub	ole Crop
Manure History Description Residual Manure N (Ib/A)	11	Continuously Double Crop	- Winter	24	Continuously Double Crop	- Summer	35	Continuously Crop	- Summer	0	Continuously Crop	- Summer	11	Continuousl Double Crop	
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	esidual N	0	No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume F Credit	Residual N	0	No Legume Credit	Residual N
Net Nutrients Required (lb/A)	139	40	0	198	33	-124	265	130	330	246	87	261	109	40	210
Manure Group	Tiestall Pit (F			Tiestall Pit (S	pring)		Tiestall Pit (F	all)		Tiestall Pit (S	pring)		Heifer Pit (Fa	all)	
Application Season: Management (Incorporation, cover crops, etc.)	grass hay, s	2-12: fall and s mall grains and e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay, s	.2-12: fall and s small grains an e. Incorp after 7	d small grain	Spring 1.2-1	2: Incorporate	d after 7 days	grass hay,		spring use by nd small grain 7 days
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.25		0.10	0.35		0.10	0.25		0.10	0.35		0.10	0.25
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.			1		1				
N Balanced Manure Rate (ton; gal/A)	36483	gal/A		41079	gal/A		69554	l gal/A		51037	gal/A		2511	5 gal/A	
P Removal Balance Manure Rate		21163	gal/A		12209	gal/A		10465	gal/A		5465	gal/A		1423	1 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo	val (lb/A)	182.0	Crop P Remo		105.0	Crop P Remo	oval (lb/A)	90.0	Crop P Remo	val (lb/A)	47.0	Crop P Remo		148.0
P Index Value		88			88										
Planned Manure Rate (ton or gal/A)	1	9000	gal/A		9000	gal/A		5000	gal/A		5000	gal/A		900	0 gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	34	77	124	43	77	124	19	43	69	24	43	69	39	94	238
Nutrient Balance after Manure	105	-37	-124	155	-44	-248	246	87	261	222	44	192	70	-54	-28
Supplemental Fertilizer (lb/A)	105	0	0	155	0	0	0	0	0	222	0	0	70	0	0
P Index Application Method	1.55	ı	ı <u> </u>		ı	ı		ı	ı	† <del></del>	ı		'	1 <u> </u>	
Final Nutrient Balance (lb/A)	0	-37	-124	0	-44	-248				0	44	192	0	-54	-28
Multiple Application		-01	-124		-14	-240	HV	V3.1 Multiple Ir	l nitial		V3.2 Multiple F			-04	-20
Manure Utilized on CMU		63,000	gallons		63,000	gallons		15 000	gallons		15 000	gallons		26 10	0 gallons
aa. 5 dilizod on Oivio		30,000	34110110	L	30,000	34110110	L	10,000	54110113	L	10,000	gunons		20,10	- ganona

App. 4: Crop Yrs. 2025		M1			M2			M2			Orman1		Orman2		
CMU/Field ID															
Acres		2.9			7.1		7.1		17.5			16.4			
Soil Test Report Date	F	ebruary 6, 202	23		February 6, 202	23	F	February 6, 202	23	F	ebruary 6, 202	23	ı	February 6, 20	23
Laboratory Name		Waypoint	I		Waypoint	T		Waypoint	ı		Waypoint	T		Waypoint	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pH
(Show conversions to ppm in Appendix 10)	34	95	6.1	34	95	6.1	34	95	6.1	15	50	6.2	22	62	6.5
P Index Part A Evaluation	N	o to All Part A		N	lo to All Part A		N	lo to All Part A			Special Prot.		Sp	ecial Prot. <1	50ft
Part A Result		N Based			N Based			N Based			Part B			Part B	
Crop	Con	n for Silage (No		5	Small Grain Sila		Cor	n for Silage (N		Cor	rn for Grain (No		Со	rn for Grain (N	
Planned Yield		23	ton/A		8	ton/A		23	ton/A		200	bu/A		200	bu/A
PSU Soil Test Recommendation (lb/A)	N 200	<b>P2O5</b>	<b>K2O</b> 220	<b>N</b> 120	<b>P2O5</b>	<b>K2O</b> 210	N 200	<b>P2O5</b>	<b>K2O</b> 220	N 230	<b>P2O5</b>	<b>K20</b>	N 230	<b>P2O5</b>	<b>K2O</b>
U 0 17 18 11 (11 (1)	200	60	220	120	40	210	200	80	220	230	130	140	230	110	110
User Soil Test Recommendation (lb/A)					1									1	
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)															
P Index Application Method															
Double Crop CarryOver N (lb/A)	23	Summer Doub	ole Crop	[23]	Winter Double	e Crop	23	Summer Doub	ole Crop	0			0		
Manure History Description Residual Manure N (lb/A)	24	Continuously Double Crop	- Summer	24	Continuously Double Crop	- Summer	24	Continuously Double Crop	- Summer	20	Frequently - S	Summer Crop	20	Frequently -	Summer Crop
Legume History Description Residual Legume N (lb/A)	0	No Legume R Credit	esidual N	0	No Legume R Credit	tesidual N	0	No Legume R Credit	esidual N	0			0		
Net Nutrients Required (lb/A)	153	26	192	96	40	210	153	26	192	210	130	140	210	110	110
Manure Group	Heifer Pit (Sp	ring)		Heifer Pit (Fa	all)		Heifer Pit (Sp	oring)		Heifer Pit (Sp	oring)		Heifer Pit (Sp	oring)	
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporated	d after 7 days	grass hay,	.2-12: fall and s small grains and e. Incorp after	d small grain	Spring 1.2-1	12: Incorporated	d after 7 days	Spring 1.2-12: Incorporated after 7 days		Spring 1.2-12: Incorporated after 7 days			
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.10	0.25		0.10	0.35		0.10	0.35		0.10	0.35
P Index Application Method		ı				ı				April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or i	ncorp > 1 wk.
N Balanced Manure Rate (ton; gal/A)	27176	gal/A		22120	) gal/A		27176	gal/A		37300	gal/A		37300	gal/A	
P Removal Balance Manure Rate			gal/A		14231	gal/A			gal/A			gal/A			2 gal/A
(ton or gal/A; If required by P Index)	Crop P Remo		54.0	Crop P Remo		148.0	Crop P Remo		54.0	Crop P Remo		80.0	Crop P Remo		80.0
P Index Value	Crop : rioms	va. (.2,7 t)	04.0	O.Op		140.0	Orop i i tomo	. (12/7.1)	04.0	отор г таппа	24	00.0	Orop : rtome	30	00.0
Planned Manure Rate (ton or gal/A)		9000	gal/A		9000	gal/A		9000	gal/A		6000	gal/A		6000	) gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	51	94	238	39	94	238	51	94	238	34	62	158	34	62	158
Nutrient Balance after Manure	102	-68	-46	57	-54	-28	102	-68	-46	176	68	-18	176	48	-48
Supplemental Fertilizer (lb/A)	102	0	0	57	0	0	102	0	0	176	00	0	176	0	0
P Index Application Method	102	I o	L "	31			102		I U	1/0	1 0	L "	170	1 0	1 "
, ,		co	46	_	F4	20		60	40		co	40		40	40
Final Nutrient Balance (lb/A)	0	-68	-46	0	-54	-28	0	-68	-46	0	68	-18	0	48	-48
Multiple Application															
Manure Utilized on CMU		26,100	gallons		63,900	gallons		63,900	gallons		105,000	gallons		98,400	gallons

App. 4: Crop Yrs. 2025		Orman3			Orman4			Orman5	Orman5		
CMU/Field ID											
Acres		9.3		3.0			2.0				
Soil Test Report Date	F	ebruary 6, 20	23	F	ebruary 6, 202	!3	F	ebruary 6, 202	!3		
Laboratory Name		Waypoint	,		Waypoint	1		Waypoint	1		
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН		
(Show conversions to ppm in Appendix 10)	9	52	6.7	9	52	6.7	9	52	6.7		
P Index Part A Evaluation	Sp	ecial Prot. <1	50ft	Sp	ecial Prot. <15	Oft	Sp	ecial Prot. <15	Oft		
Part A Result		Part B			Part B			Part B			
Crop	Co	rn for Grain (N	o-till)	Estab	lished Mixed G	rasses	Estab	lished Mixed G	rasses		
Planned Yield		200	bu/A		6	ton/A		6	ton/A		
PSU Soil Test Recommendation (lb/A)	N	P2O5 K2O		N	P2O5	K20	N	P2O5	K2O		
1 00 0011 1001 1100011111011dddioi1 (15/11)	230	140	130	300	170	320	300	170	320		
User Soil Test Recommendation (lb/A)											
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)											
P Index Application Method											
Double Crop CarryOver N (lb/A)	0			0			0				
Manure History Description Residual Manure N (lb/A)	20	Frequently - Summer Crop		20	Frequently - Summer Crop		20	Frequently - Summer Crop			
Legume History Description Residual Legume N (lb/A)	0			0			0				
Net Nutrients Required (lb/A)	210	140	130	280	170	320	280	170	320		
Manure Group	Tiestall Pit (S	spring)		Tiestall Pit (S	pring)		Tiestall Pit (S	pring)			
Application Season: Management (Incorporation, cover crops, etc.)	Spring 1.2-1	2: Incorporate	d after 7 days	Spring 1.2-12: Incorporated after 7 days			Spring 1.2-12: Incorporated after 7 days				
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N		
Availability Factors (Total N or NH4-N & Organic N)		0.10	0.35		0.10	0.35		0.10	0.35		
P Index Application Method	April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.		
N Balanced Manure Rate (ton; gal/A)	43568	gal/A		58091	gal/A		58091	gal/A			
P Removal Balance Manure Rate		9302	gal/A		10465	gal/A		10465	gal/A		
(ton or gal/A; If required by P Index)	Crop P Remo		80.0	Crop P Remo		90.0	Crop P Remo		90.0		
P Index Value		23			23			23			
Planned Manure Rate (ton or gal/A)		6000	gal/A		6000	gal/A		6000	gal/A		
Nutrients Applied at Planned Manure Rate (lb/A)	29	52	83	29	52	83	29	52	83		
Nutrient Balance after Manure	181	88	47	251	118	237	251	118	237		
Supplemental Fertilizer (lb/A)	181	0	0	251	0	0	251	0	0		
P Index Application Method		1	1		I	I		1	l .		
Final Nutrient Balance (lb/A)	0	88	47	0	118	237	0	118	237		
Multiple Application		1	1		1	I		1	I		
	55,800 gallons			18,000 gallons			12,000 gallons				

Crop Yrs. 2023	Pennsylvania P Inde	x Version 2					
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING T	OOL	CMU/Field ID	2	P1
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	l Protection watershed?			No	No
A significant farm management change as defined by Act 38?		Is there a significant fa	No	No			
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	n 3 P greater than 200 ppm P1	? (enter soil test value in ppm P)	any of these questions,	90	111
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	ance from this CMU to receiving	ing water less than 150 ft.?	Part B must be used.	Yes	Yes
s winter manure application planned for this field ?		Is winter manure applic	cation planned for this field?			No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B vol		No	No		
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)				90	111		
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						18	22
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0, 0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	7-	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0, 0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	5-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod					0	0
MANURE P RATE					Manure P (lb P2O5/acre)	79, 79	17
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.2, 0.2	0.6
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8, 0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffic	cient				26	8
Source Factor Sum						44	30
PART B: TRANSPORT FACTORS			Soil Loss (ton/acre/yr	·)		1.5	0.5
EROSION		I		•			
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8  Drainage Class is  Poorly/Very Poorly	4	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface						12	11
MODIFIED CONNECTIVITY	50 ft. Ri	0.85 parian Buffer DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1	1
Fransport Sum x Modified Connectivity / 24	72.2010					0.48	0.44
P Index Value = 2 x Source x Transport						42	26

Low: 59 or less Nitrogen based management Medium: 60 to 79

High: 80 to 99 Nitrogen based

management

Phosphorus limited to crop removal

Very High: 100 or greater No Phosphorus applied

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Crop Yrs. 2023

Clop 118. 2023							
PART A: SCREENING TOOL CMU/Field ID	P2	P3	P4	CF5	C2	Orman1	Orman2
Is the CMU in a Special Protection watershed?	No	No	No	No	Yes	Yes	Yes
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	111	111	111	96	40	15	22
Contributing Distance from CMU to receiving water <150 ft.?	Yes	Yes	Yes	Yes	No	No	Yes
Is winter manure application planned for this field?	No	No	No	No	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	111	111	111	96	40	15	22
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	22	22	22	19	8	3	4
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0, 0	0, 0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	-	-	-	7,-	7, <del>-</del>	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0, 0	0, 0	0	0
	-	-	-	-, -	-, -	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>							
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	17	62	62	29, 29	77, 77	62	62
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	0.6	0.6, 0.6	0.6, 0.6	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8, 0.8	0.8, 0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	8	30	30	28	74	30	30
Source Factor Sum	30	52	52	47	82	33	34
PART B: TRANSPORT FACTORS  EROSION	0.5	0.5	0.5	1.5	2.95	0.65	0.58
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	6	6	6	6	6	4	6
Transport Sum = Erosion + Runoff Potential + Subsurface [	11	11	11	12	13	9	11
MODIFIED CONNECTIVITY	1	1	1	1	1	1	1
Transport Sum x Modified Connectivity / 24	0.44	0.44	0.44	0.48	0.54	0.36	0.44
P Index Value = 2 x Source x Transport	26	46	46	45	88	24	30

Low: 59 or less

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding.

Crop Yrs. 2023

PART A: SCREENING TOOL CMU/Field ID	Orman3	Orman4	Orman5
Is the CMU in a Special Protection watershed?	Yes	Yes	Yes
A significant farm management change as defined by Act 38?	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	9	9	9
Contributing Distance from CMU to receiving water <150 ft.?	Yes	Yes	Yes
Is winter manure application planned for this field ?	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	9	9	9
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	2	2	2
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0
	-	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>			
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0
MANURE P RATE	52	52	52
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	25	25	25
Source Factor Sum	27	27	27
PART B: TRANSPORT FACTORS  EROSION	0.38	0.16	0.17
RUNOFF POTENTIAL	4	4	4
SUBSURFACE DRAINAGE	0	0	0
CONTRIBUTING DISTANCE	6	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface [	10	10	10
MODIFIED CONNECTIVITY	1	1	1
Transport Sum x Modified Connectivity / 24	0.43	0.42	0.42
P Index Value = 2 x Source x Transport	23	23	23

Low: 59 or less

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding.

Crop Yrs. 2024	Pennsylvania P Inde	ex Version 2			1		
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING T	OOL	CMU/Field ID	2	P1
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	al Protection watershed?			No	No
A significant farm management change as defined by Act 38?		Is there a significant fa	rm management change as de	efined by Act 38?	If the answer is Yes to	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	h 3 P greater than 200 ppm P?	any of these questions,	90	111	
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	tance from this CMU to receivi	ng water less than 150 ft.?	Part B must be used.	Yes	Yes
Is winter manure application planned for this field?		Is winter manure applic	cation planned for this field?			No	No
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vol	luntarily? (Answers are No to		No	No	
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)		•	Mehlich 3 Soil Test P (pp	m P)		90	111
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						18	22
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0, 0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	5-	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0, 0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	thod					0	0
MANURE P RATE					Manure P (lb P2O5/acre)	79, 79	17
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.2, 0.2	0.6
P SOURCE COEFFICIENT <sup>3</sup>	Ret	fer to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8, 0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeffic	cient				26	8
Source Factor Sum						44	30
PART B: TRANSPORT FACTORS  EROSION			Soil Loss (ton/acre/yr	)		1.5	0.5
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly	4	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface						12	11
MODIFIED CONNECTIVITY	50 ft. Ri	0.85 iparian Buffer DDIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1	1
Transport Sum x Modified Connectivity / 24	74 1 2120 10	2.3 10011				0.48	0.44
P Index Value = 2 x Source x Transport						42	26

Low: 59 or less Nitrogen based management Medium: 60 to 79 Nitrogen based

High: 80 to 99

Phosphorus limited to crop removal management

Very High: 100 or greater No Phosphorus applied

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Crop Yrs. 2024

GIOP 113. 2024				1			
PART A: SCREENING TOOL CMU/Field ID	P2	P3	P4	CF5	C2	Orman1	Orman2
Is the CMU in a Special Protection watershed?	No	No	No	No	Yes	Yes	Yes
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	111	111	111	96	40	15	22
Contributing Distance from CMU to receiving water <150 ft.?	Yes	Yes	Yes	Yes	No	No	Yes
Is winter manure application planned for this field?	No	No	No	No	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	111	111	111	96	40	15	22
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	22	22	22	19	8	3	4
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0, 0	0, 0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	-	-	-	-, -	7; <del>-</del>	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0, 0	0, 0	0	0
	-	-	-	-, -	-, -	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>							
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	17	62	62	29, 29	77, 77	62	62
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	0.6	0.6, 0.6	0.6, 0.6	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8, 0.8	0.8, 0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	8	30	30	28	74	30	30
Source Factor Sum	30	52	52	47	82	33	34
PART B: TRANSPORT FACTORS  EROSION	0.5	0.5	0.5	1.5	2.95	0.65	0.58
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	6	6	6	6	6	4	6
Transport Sum = Erosion + Runoff Potential + Subsurface [	11	11	11	12	13	9	11
MODIFIED CONNECTIVITY	1	1	1	1	1	1	1
Transport Sum x Modified Connectivity / 24	0.44	0.44	0.44	0.48	0.54	0.36	0.44
P Index Value = 2 x Source x Transport	26	46	46	45	88	24	30

Low: 59 or less

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding.

Crop Yrs. 2024

PART A: SCREENING TOOL CMU/Field ID	Orman3	Orman4	Orman5
Is the CMU in a Special Protection watershed?	Yes	Yes	Yes
A significant farm management change as defined by Act 38?	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	9	9	9
Contributing Distance from CMU to receiving water <150 ft.?	Yes	Yes	Yes
Is winter manure application planned for this field ?	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	9	9	9
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	2	2	2
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0
	-	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>			
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0
MANURE P RATE	52	52	52
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	25	25	25
Source Factor Sum	27	27	27
PART B: TRANSPORT FACTORS  EROSION	0.38	0.16	0.17
RUNOFF POTENTIAL	4	4	4
SUBSURFACE DRAINAGE	0	0	0
CONTRIBUTING DISTANCE	6	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface I	10	10	10
MODIFIED CONNECTIVITY	1	1	1
Transport Sum x Modified Connectivity / 24	0.43	0.42	0.42
P Index Value = 2 x Source x Transport	23	23	23

Low: 59 or less

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding.

Crop Yrs. 2025	Pennsylvania P Inde	x Version 2					
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING T	OOL	CMU/Field ID	2	P1
s the CMU in a Special Protection watershed?		Is the CMU in a Specia	l Protection watershed?			No	No
A significant farm management change as defined by Act 38?		Is there a significant fa	No	No			
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	n 3 P greater than 200 ppm P1	(enter soil test value in ppm P)	any of these questions,	90	111
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	ance from this CMU to receive	ng water less than 150 ft.?	Part B must be used.	Yes	Yes
s winter manure application planned for this field ?		Is winter manure applic	cation planned for this field?			No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B vol		No	No		
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)				90	111		
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						18	22
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0, 0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	7-	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0, 0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	5-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod					0	0
MANURE P RATE					Manure P (lb P2O5/acre)	79, 79	17
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.2, 0.2	0.6
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8, 0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffic	cient				26	8
Source Factor Sum						44	30
PART B: TRANSPORT FACTORS			Soil Loss (ton/acre/yr	<u> </u>		1.5	0.5
EROSION			Soil Loss (tori/acre/yi	)		1.5	0.5
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8  Drainage Class is Poorly/Very Poorly	4	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	6	6
ransport Sum = Erosion + Runoff Potential + Subsurface						12	11
MODIFIED CONNECTIVITY	50 ft. Ri	0.85 parian Buffer DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1	1
Fransport Sum x Modified Connectivity / 24	72.2010					0.48	0.44
P Index Value = 2 x Source x Transport						42	26

Low: 59 or less Nitrogen based management Medium: 60 to 79 Nitrogen based

High: 80 to 99

management

Phosphorus limited to crop removal

Very High: 100 or greater No Phosphorus applied

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Crop Yrs. 2025

GIOD 113. 2023							
PART A: SCREENING TOOL CMU/Field ID	P2	P3	P4	CF5	C2	Orman1	Orman2
Is the CMU in a Special Protection watershed?	No	No	No	No	Yes	Yes	Yes
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	111	111	111	96	40	15	22
Contributing Distance from CMU to receiving water <150 ft.?	Yes	Yes	Yes	Yes	No	No	Yes
Is winter manure application planned for this field?	No	No	No	No	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	111	111	111	96	40	15	22
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	22	22	22	19	8	3	4
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0, 0	0, 0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	-	-	-	-, -	7; <del>-</del>	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0, 0	0, 0	0	0
	-	-	-	-, -	-, -	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>							
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	17	62	62	29, 29	77, 77	62	62
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	0.6	0.6, 0.6	0.6, 0.6	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8, 0.8	0.8, 0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	8	30	30	28	74	30	30
Source Factor Sum	30	52	52	47	82	33	34
PART B: TRANSPORT FACTORS  EROSION	0.5	0.5	0.5	1.5	2.95	0.65	0.58
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	6	6	6	6	6	4	6
Transport Sum = Erosion + Runoff Potential + Subsurface I	11	11	11	12	13	9	11
MODIFIED CONNECTIVITY	1	1	1	1	1	1	1
Transport Sum x Modified Connectivity / 24	0.44	0.44	0.44	0.48	0.54	0.36	0.44
P Index Value = 2 x Source x Transport	26	46	46	45	88	24	30

Low: 59 or less

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding.

Crop Yrs. 2025

PART A: SCREENING TOOL CMU/Field ID	Orman3	Orman4	Orman5
Is the CMU in a Special Protection watershed?	Yes	Yes	Yes
A significant farm management change as defined by Act 38?	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	9	9	9
Contributing Distance from CMU to receiving water <150 ft.?	Yes	Yes	Yes
Is winter manure application planned for this field ?	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	9	9	9
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	2	2	2
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARDLESS OF MANURE <sup>3</sup>	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0
	-	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>			
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0
MANURE P RATE	52	52	52
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	25	25	25
Source Factor Sum	27	27	27
PART B: TRANSPORT FACTORS  EROSION	0.38	0.16	0.17
RUNOFF POTENTIAL	4	4	4
SUBSURFACE DRAINAGE	0	0	0
CONTRIBUTING DISTANCE	6	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface I	10	10	10
MODIFIED CONNECTIVITY	1	1	1
Transport Sum x Modified Connectivity / 24	0.43	0.42	0.42
P Index Value = 2 x Source x Transport	23	23	23

Low: 59 or less

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding.

# Appendix 6 Manure Management

Date of Site

1/17/2023

Evaluation:

### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

All manure storages, animal housing facilities, and feed storages were evaluated at the Robot Farm, Tie Stall Facility, and the Heifer Facility

## **Identification of Inadequate Manure Management Practices and Conditions**

List of each specific inadequate manure management practice or condition identified.

Heifer barn facility—there is a problem with ACA concrete lot runoff reaching the pasture to the west of the lot causing the area to be wet and damaging the vegetation between the lot and the stream.

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above

In discussion with Jeff Overstreet at Berks Co. Conservation District, these BMP's are being proposed:

561-Heavy Use Area Protection

567-Roofs and Covers

558-Roof Runoff Structure

575-Animal Trails and Walkways

620-Underground Outlet

# Appendix 7 Stormwater Control

Date of Site Evaluation:

1/17/2023

### Statement Documenting Areas Evaluated During Site Evaluation

List and clearly identify each of the specific areas evaluated

Fields and Pastures close adjacent to streams were evaluated. Specific Fields include: P1,P2,P3,P4, 1,2,3,4,7,CF5,CF7,S2,C2,Orman Farm,M1,M2,HW3

#### **Identification of Critical Runoff Problem Areas**

List of each specific critical runoff problem area identified.

None

#### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

None

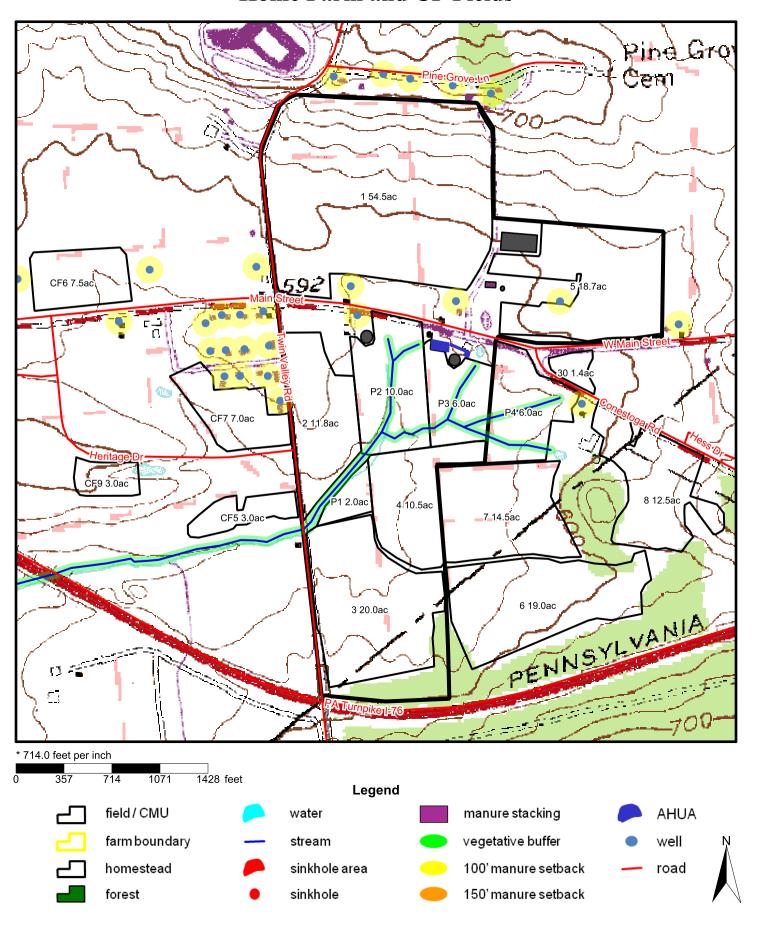
# Appendix 8 Importer/Broker Agreements & NBSs

Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.

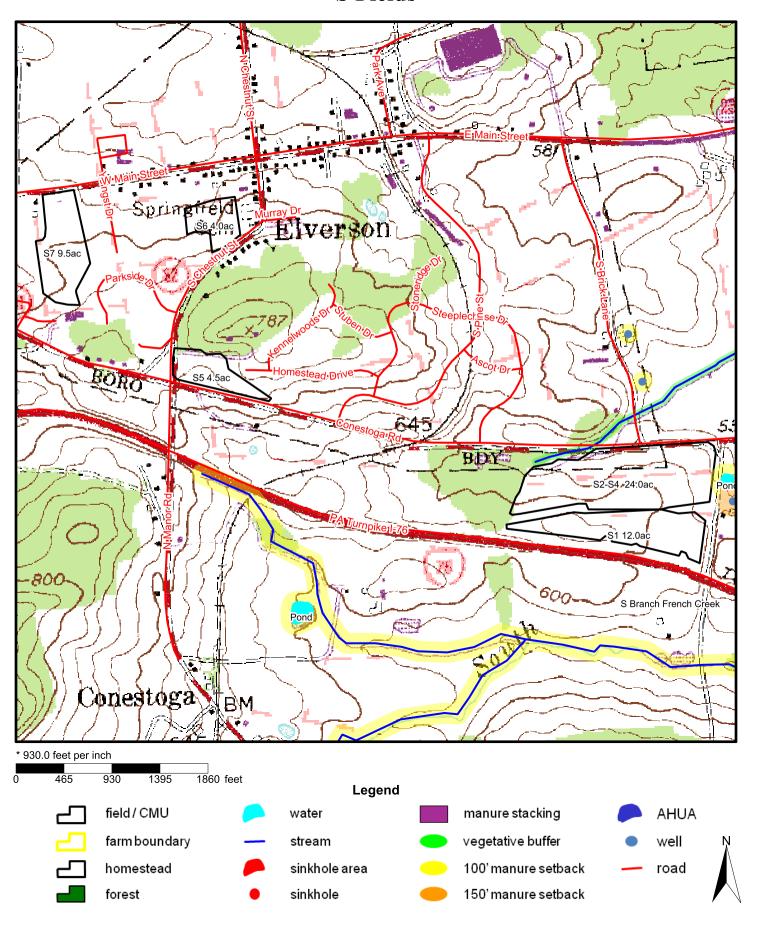
# Appendix 9 Operation Maps

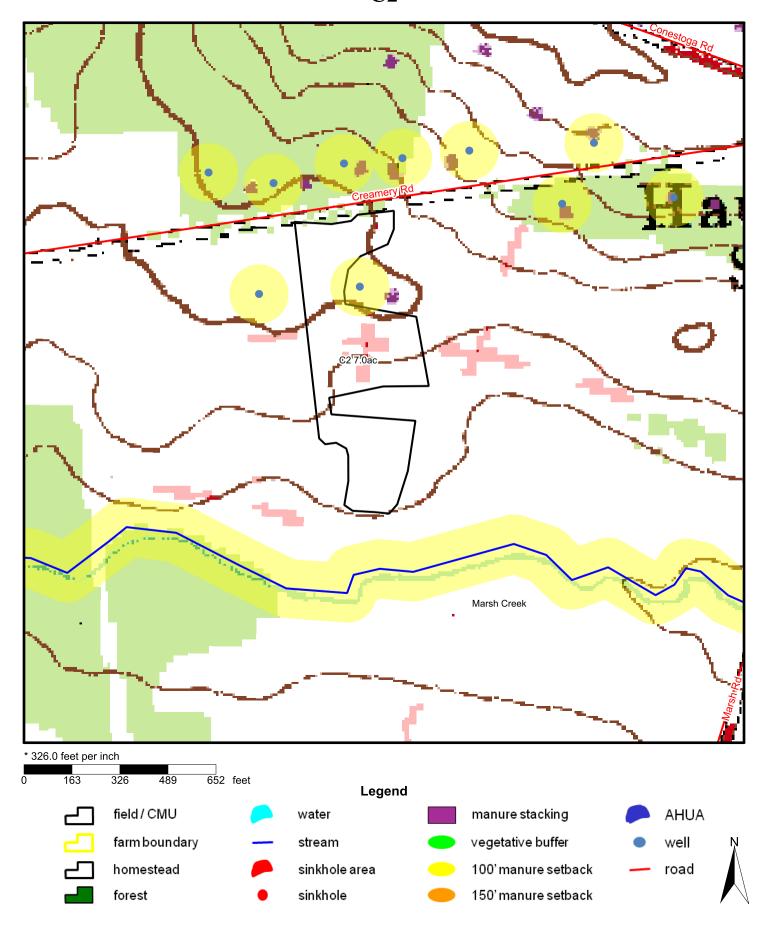
Three types of maps are required for a CNMP 590 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.

### Home Farm and CF Fields

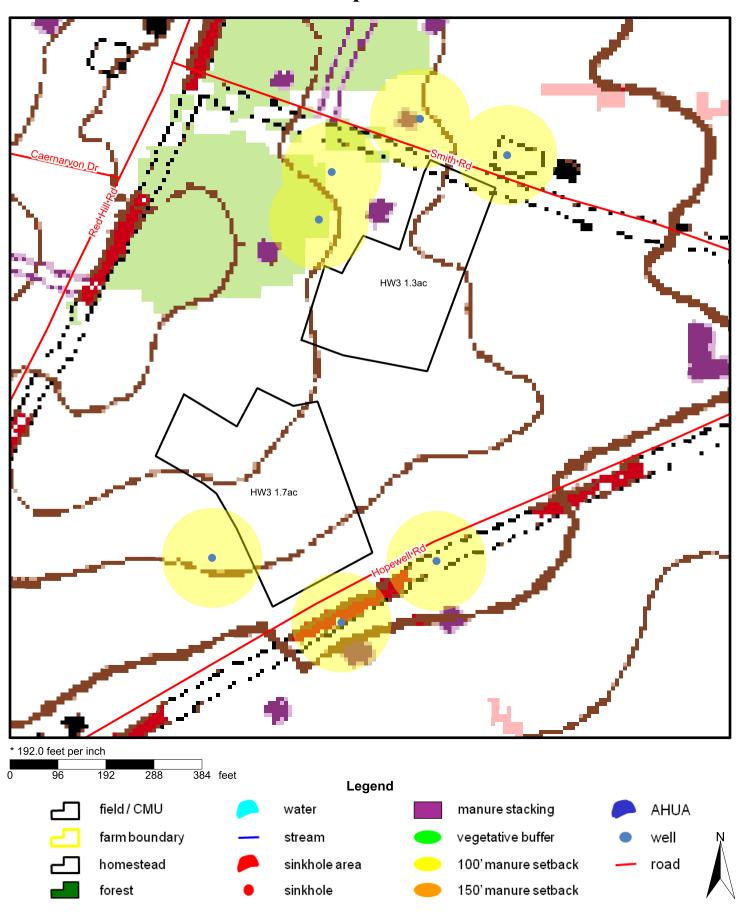


## **S** Fields

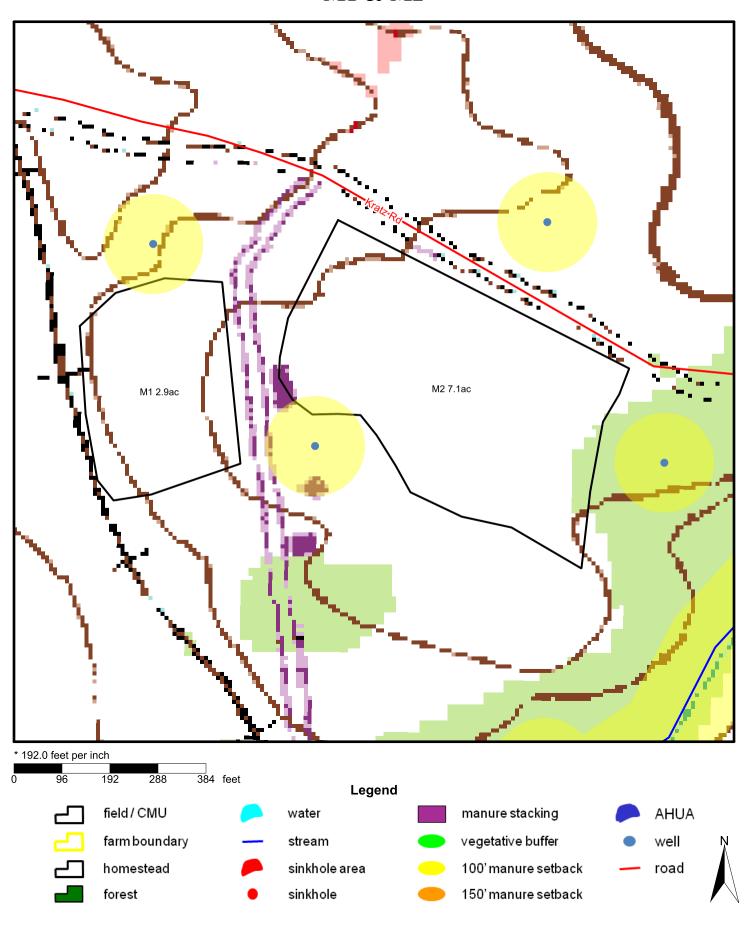




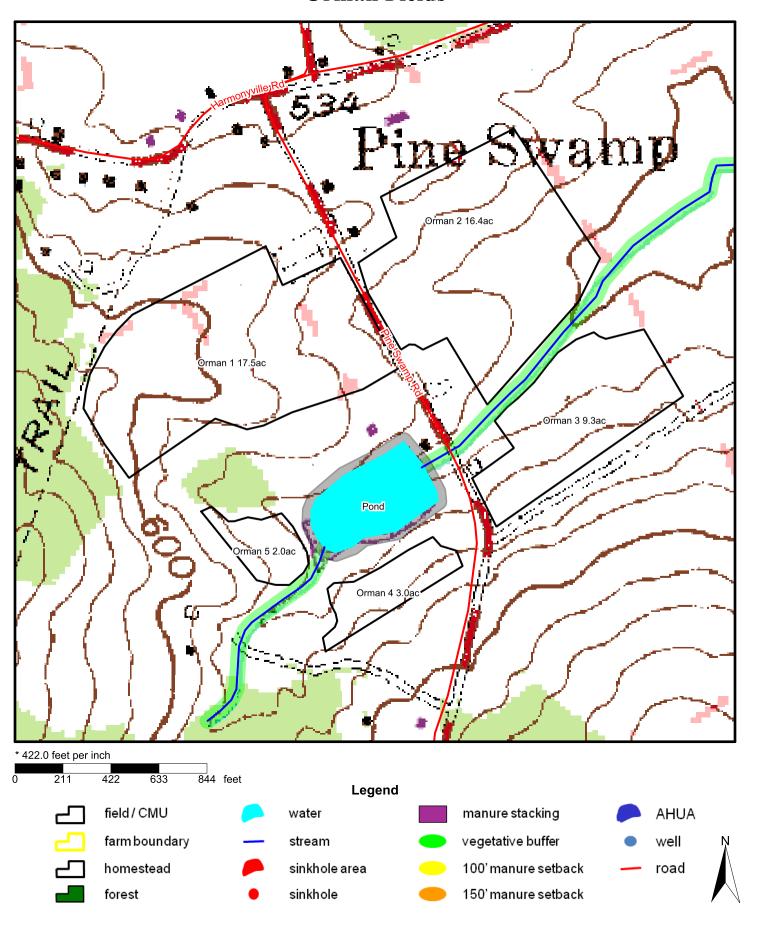
## Hopewell



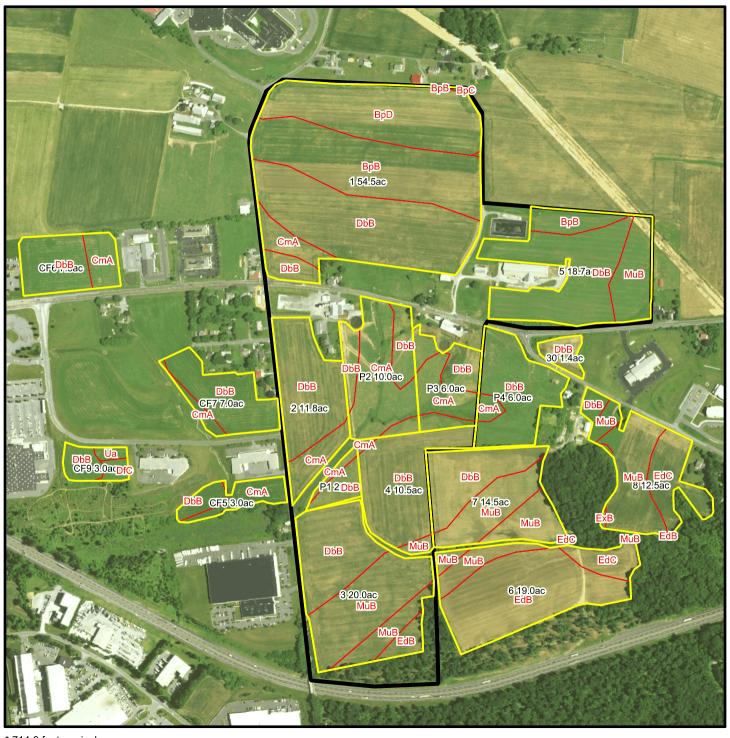
## M1 & M2

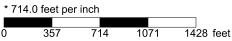


## **Orman Fields**



## **Home Farm and CF Fields**

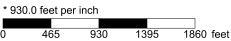






## **S** Fields











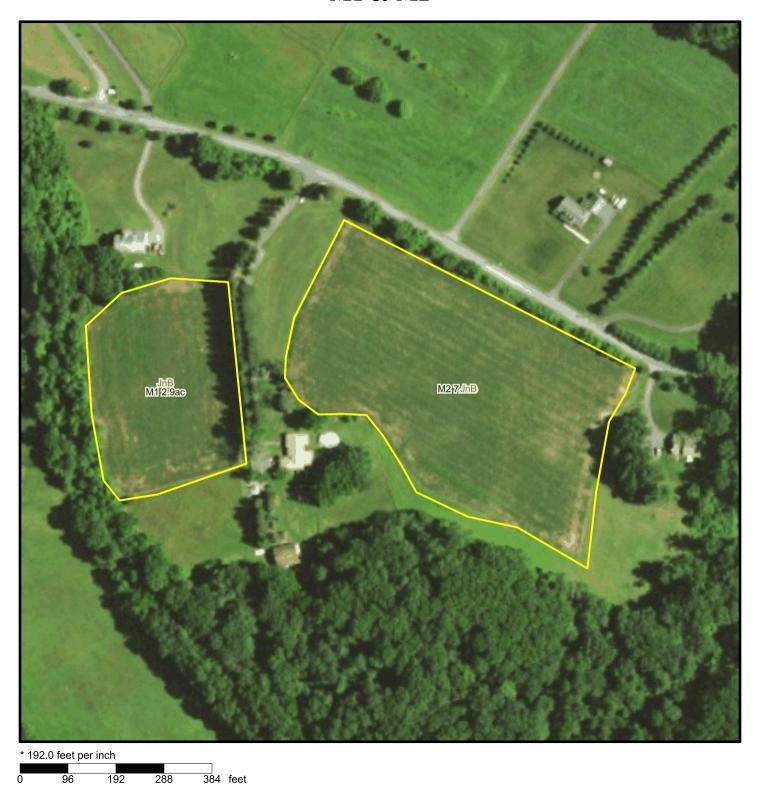


## Hopewell



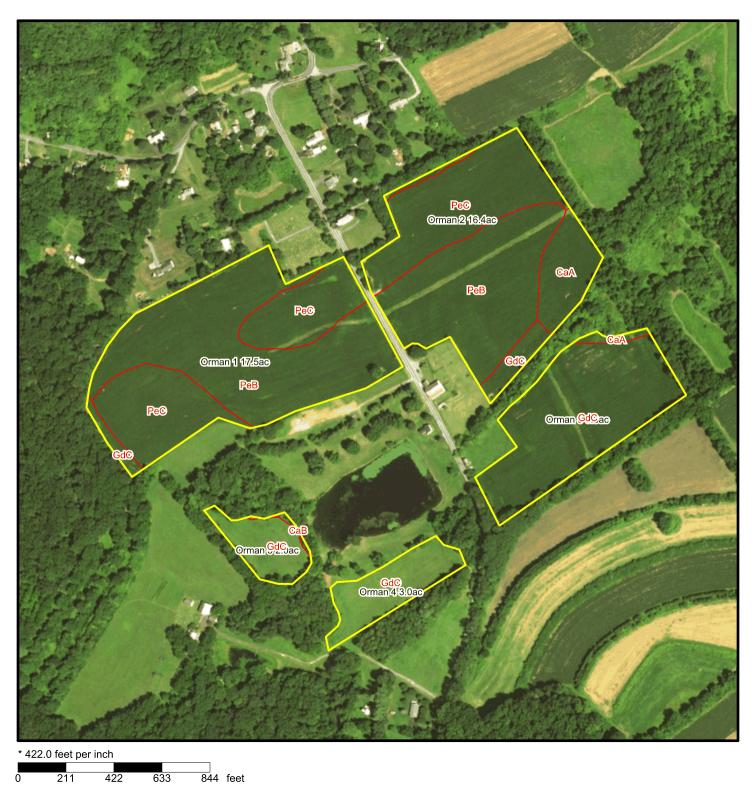


## M1 & M2





## **Orman Fields**





### Soil Acreages By Field

Field	Label	Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
1	1 54.5a	c BpB	Brecknock channery silt loam, 3 to 8 percent slopes	Brecknock	93	15.9	Well drained	All areas are prime farmland	3	0.37
1	1 54.5a	c BpC	Brecknock channery silt loam, 8 to 15 percent slopes	Brecknock	91	0.13	Well drained	Farmland of statewide importance	3	0.37
1	1 54.5a	c BpD	Brecknock channery silt loam, 15 to 25 percent slopes	Brecknock	97	14.13	Well drained	Not prime farmland	3	0.37
1	1 54.5a	c CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	2.08	Moderately well drained	All areas are prime farmland	4	0.37
1	1 54.5a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	19.29	Well drained	All areas are prime farmland	5	0.32
2	2 11.8a	c CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	2.37	Moderately well drained	All areas are prime farmland	4	0.37
2	2 11.8a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	9.07	Well drained	All areas are prime farmland	5	0.32
3	3 20.0a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	7.95	Well drained	All areas are prime farmland	5	0.32
3	3 20.0a	c MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	11.47	Well drained	All areas are prime farmland	5	0.28
3	3 20.0a	c EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	1.34	Well drained	All areas are prime farmland	5	0.28
30	30 1.4ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	1.5	Well drained	All areas are prime farmland	5	0.32
4	4 10.5a	c CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	0.2	Moderately well drained	All areas are prime farmland	4	0.37
4	4 10.5a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	9.99	Well drained	All areas are prime farmland	5	0.32

Field	Label	Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
4	4 10.5a	c MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	0.53	Well drained	All areas are prime farmland	5	0.28
5	5 18.7a	с ВрВ	Brecknock channery silt loam, 3 to 8 percent slopes	Brecknock	93	2.34	Well drained	All areas are prime farmland	3	0.37
5	5 18.7a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	12.19	Well drained	All areas are prime farmland	5	0.32
5	5 18.7a	c MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	4.4	Well drained	All areas are prime farmland	5	0.28
6	6 19.0a	c MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	2.82	Well drained	All areas are prime farmland	5	0.28
6	6 19.0a	c EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	13.69	Well drained	All areas are prime farmland	5	0.28
6	6 19.0a	e EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont	93	2.34	Well drained	Farmland of statewide importance	5	0.28
7	7 14.5a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	6.43	Well drained	All areas are prime farmland	5	0.32
7	7 14.5a	c MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	8.04	Well drained	All areas are prime farmland	5	0.28
7	7 14.5a	c EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont	93	0.04	Well drained	Farmland of statewide importance	5	0.28
8	8 12.5a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	0.78	Well drained	All areas are prime farmland	5	0.32
8	8 12.5a	c MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	7.39	Well drained	All areas are prime farmland	5	0.28
8	8 12.5a	c EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	0.03	Well drained	All areas are prime farmland	5	0.28
8	8 12.5a	c EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont	93	4.26	Well drained	Farmland of statewide importance	5	0.28

Field	Label	Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
8	8 12.5a	c ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Edgemont	90	0.18	Well drained	Not prime farmland	5	0.15
C2	C2 7.0ac	СаВ	Califon loam, 3 to 8 percent slopes	Califon	82	< 0.01	Moderately well drained	All areas are prime farmland	4	0.32
C2	C2 7.0ac	СрА	Cokesbury silt loam, 0 to 3 percent slopes	Cokesbury	85	0.16	Poorly drained	Not prime farmland	4	0.37
C2	C2 7.0ac	EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont	93	1.22	Well drained	Farmland of statewide importance	5	0.28
C2	C2 7.0ac	GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Gladstone	85	4.33	Well drained	All areas are prime farmland	5	0.28
CF5	CF5 3.0ac	CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	2.19	Moderately well drained	All areas are prime farmland	4	0.37
CF5	CF5 3.0ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	1.3	Well drained	All areas are prime farmland	5	0.32
CF6	CF6 7.5ac	CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	2.08	Moderately well drained	All areas are prime farmland	4	0.37
CF6	CF6 7.5ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	4.83	Well drained	All areas are prime farmland	5	0.32
CF7	CF7 7.0ac	CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	0.81	Moderately well drained	All areas are prime farmland	4	0.37
CF7	CF7 7.0ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	6.16	Well drained	All areas are prime farmland	5	0.32
CF9	CF9 3.0ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	1.55	Well drained	All areas are prime farmland	5	0.32
CF9	CF9 3.0ac	DfC	Duffield-Ryder silt loams, 8 to 15 percent slopes	Ryder	30	0.23	Well drained	Farmland of statewide importance	2	0.37
CF9	CF9 3.0ac	DfC	Duffield-Ryder silt loams, 8 to 15 percent slopes	Duffield	60	0.47	Well drained	Farmland of statewide importance	5	0.32

Field	Label	Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
HW3	HW3 1.3ac	JnB	Joanna loam, 3 to 8 percent slopes	Joanna	90	0.96	Well drained	All areas are prime farmland	5	0.28
HW3	HW3 1.7ac	JnB	Joanna loam, 3 to 8 percent slopes	Joanna	90	1.06	Well drained	All areas are prime farmland	5	0.28
HW3	HW3 1.7ac	JnC	Joanna loam, 8 to 15 percent slopes	Joanna	90	0.2	Well drained	Farmland of statewide importance	5	0.28
M1	M1 2.9ac	JnB	Joanna loam, 3 to 8 percent slopes	Joanna	90	2.66	Well drained	All areas are prime farmland	5	0.28
M2	M2 7.1ac	JnB	Joanna loam, 3 to 8 percent slopes	Joanna	90	5.96	Well drained	All areas are prime farmland	5	0.28
Ormal		n c GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	0.39	Well drained	Farmland of statewide importance	5	0.24
Ormai 1	Orma n 1 17.5a		Penn silt loam, 3 to 8 percent slopes	Penn	85	11.17	Well drained	All areas are prime farmland	2	0.37
Ormal	Orma n 1 17.5a		Penn silt loam, 8 to 15 percent slopes	Penn	85	6.57	Well drained	Farmland of statewide importance	2	0.37
Ormai 2	Orma n 2 16.4a		Califon loam, 0 to 3 percent slopes	Califon	90	2.12	Moderately well drained	All areas are prime farmland	4	0.32
Orma 2		n c GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	0.79	Well drained	Farmland of statewide importance	5	0.24
Ormai 2	Orma n 2 16.4a		Penn silt loam, 3 to 8 percent slopes	Penn	85	8.09	Well drained	All areas are prime farmland	2	0.37
Ormal 2	Ormai n 2 16.4a		Penn silt loam, 8 to 15 percent slopes	Penn	85	5.89	Well drained	Farmland of statewide importance	2	0.37
Ormai 3	Orma n 3 9.3ac		Califon loam, 0 to 3 percent slopes	Califon	90	0.24	Moderately well drained	All areas are prime farmland	4	0.32

Field	Label	Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
Orma	Orma n 3 9.3ac		Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	8.48	Well drained	Farmland of statewide importance	5	0.24
Orma	Orma h 4 3.0ac		Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	2.73	Well drained	Farmland of statewide importance	5	0.24
Orma 5	Orma n 5 2.0ac		Califon loam, 3 to 8 percent slopes	Califon	82	0.1	Moderately well drained	All areas are prime farmland	4	0.32
Orma	Orma n 5 2.0ac		Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	1.94	Well drained	Farmland of statewide importance	5	0.24
P1	P1 2.0ac	CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	0.51	Moderately well drained	All areas are prime farmland	4	0.37
P1	P1 2.0ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	1.72	Well drained	All areas are prime farmland	5	0.32
P2	P2 10.0a	c CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	7.37	Moderately well drained	All areas are prime farmland	4	0.37
P2	P2 10.0a	c DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	4.17	Well drained	All areas are prime farmland	5	0.32
P3	P3 6.0ac	CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	3.11	Moderately well drained	All areas are prime farmland	4	0.37
P3	P3 6.0ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	3.72	Well drained	All areas are prime farmland	5	0.32
P4	P4 6.0ac	CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	0.74	Moderately well drained	All areas are prime farmland	4	0.37
P4	P4 6.0ac	DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	8.52	Well drained	All areas are prime farmland	5	0.32
S1	S1 12.0a	c GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Gladstone	85	11.72	Well drained	All areas are prime farmland	5	0.28
S1	S1 12.0a	c GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	0.02	Well drained	Farmland of statewide importance	5	0.24

Field	Label	Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
S2-S4	S2-S4 24.0a		Califon loam, 0 to 3 percent slopes	Califon	90	0.11	Moderately well drained	All areas are prime farmland	4	0.32
S2-S4	S2-S4 24.0a		Cokesbury silt loam, 0 to 3 percent slopes	Cokesbury	85	0.81	Poorly drained	Not prime farmland	4	0.37
S2-S4	S2-S4 24.0a		Gladstone gravelly loam, 3 to 8 percent slopes	Gladstone	85	22.44	Well drained	All areas are prime farmland	5	0.28
S5	S5 4.5ac	EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	0.96	Well drained	All areas are prime farmland	5	0.28
S5	S5 4.5ac	EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont	93	3	Well drained	Farmland of statewide importance	5	0.28
S5	S5 4.5ac	EdD	Edgemont channery loam, 15 to 25 percent slopes	Edgemont	93	1.16	Well drained	Not prime farmland	5	0.28
S6	S6 4.0ac	EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	4.27	Well drained	All areas are prime farmland	5	0.28
S7	S7 9.5ac	EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	9.46	Well drained	All areas are prime farmland	5	0.28

## Soil Acreages For Farm

Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
ВрВ	Brecknock channery silt loam, 3 to 8 percent slopes	Brecknock	93	18.24	Well drained	All areas are prime farmland	3	0.37
ВрС	Brecknock channery silt loam, 8 to 15 percent slopes	Brecknock	91	0.13	Well drained	Farmland of statewide importance	3	0.37
BpD	Brecknock channery silt loam, 15 to 25 percent slopes	Brecknock	97	14.13	Well drained	Not prime farmland	3	0.37
CmA	Clarksburg silt loam, 0 to 3 percent slopes	Clarksburg	95	21.46	Moderately well drained	All areas are prime farmland	4	0.37

Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
DbB	Duffield silt loam, 3 to 8 percent slopes	Duffield	90	99.17	Well drained	All areas are prime farmland	5	0.32
MuB	Murrill gravelly loam, 3 to 8 percent slopes	Murrill	90	34.65	Well drained	All areas are prime farmland	5	0.28
EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont	93	29.75	Well drained	All areas are prime farmland	5	0.28
EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont	93	10.86	Well drained	Farmland of statewide importance	5	0.28
DfC	Duffield-Ryder silt loams, 8 to 15 percent slopes	Ryder	30	0.23	Well drained	Farmland of statewide importance	2	0.37
DfC	Duffield-Ryder silt loams, 8 to 15 percent slopes	Duffield	60	0.47	Well drained	Farmland of statewide importance	5	0.32
GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Gladstone	85	38.49	Well drained	All areas are prime farmland	5	0.28
GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone	85	14.35	Well drained	Farmland of statewide importance	5	0.24
CaA	Califon loam, 0 to 3 percent slopes	Califon	90	2.47	Moderately well drained	All areas are prime farmland	4	0.32
СрА	Cokesbury silt loam, 0 to 3 percent slopes	Cokesbury	85	0.97	Poorly drained	Not prime farmland	4	0.37
EdD	Edgemont channery loam, 15 to 25 percent slopes	Edgemont	93	1.16	Well drained	Not prime farmland	5	0.28
СаВ	Califon loam, 3 to 8 percent slopes	Califon	82	0.1	Moderately well drained	All areas are prime farmland	4	0.32
JnB	Joanna loam, 3 to 8 percent slopes	Joanna	90	10.64	Well drained	All areas are prime farmland	5	0.28

Musym	Muname	Comp	%	Acres	Drainage Class	Farmland Class	Tfact	Kfact
JnC	Joanna loam, 8 to 15 percent slopes	Joanna	90	0.2	Well drained	Farmland of statewide importance	5	0.28
ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Edgemont	90	0.18	Well drained	Not prime farmland	5	0.15
PeB	Penn silt loam, 3 to 8 percent slopes	Penn	85	19.26	Well drained	All areas are prime farmland	2	0.37
PeC	Penn silt loam, 8 to 15 percent slopes	Penn	85	12.46	Well drained	Farmland of statewide importance	2	0.37

# Appendix 10 Supporting Information & Documentation

Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

	Manure	Analysis 5 Yea	ar Running Av	erage						
Manure Average for Crop	Robot Barn Lagoon (Fall)									
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago				
Manure Report Date	May 17 2022	May 17 2022								
Laboratory Name	Waypoint	Waypoint								
Manure Type	Dairy	Dairy								
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal								
Total Nitrogen (N) (lbs/ton or 1000 gal)	28.70	28.70								
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	13.60	13.60								
Total Organic N (lbs/ton or 1000 gal)	15.10	15.10								
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.80	8.80								
Total Potash (K₂O) (lbs/ton or 1000 gal)	19.20	19.20								
Percent Solids	5.50	5.50								
PSC Value (Enter analytical or book value)	0.80	0.80								

Manure Average for Crop			Robot Barn Lag	oon (Spring)		
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago
Manure Report Date	May 17 2022	May 17 2022				
Laboratory Name	Waypoint	Waypoint				
Manure Type	Dairy	Dairy				
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal				
Total Nitrogen (N) (lbs/ton or 1000 gal)	28.70	28.70				
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	13.60	13.60				
Total Organic N (lbs/ton or 1000 gal)	15.10	15.10				
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.80	8.80				
Total Potash (K₂O) (lbs/ton or 1000 gal)	19.20	19.20				
Percent Solids	5.50	5.50				
PSC Value (Enter analytical or book value)	0.80	0.80				

Manure Average for Crop			Tiestall Pi	t (Fall)		
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago
Manure Report Date	May 17 2022	May 17 2022				
Laboratory Name	Waypoint	Waypoint				
Manure Type	Dairy	Dairy				
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal				
Total Nitrogen (N) (lbs/ton or 1000 gal)	22.90	22.90				
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	12.80	12.80				
Total Organic N (lbs/ton or 1000 gal)	10.10	10.10				
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.60	8.60				
Total Potash (K₂O) (lbs/ton or 1000 gal)	13.80	13.80				
Percent Solids	6.00	6.00				
PSC Value (Enter analytical or book value)	0.80	0.80				

Manure Average for Crop	Tiestall Pit (Spring)										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	May 17 2023	May 17 2023									
Laboratory Name	Waypoint	Waypoint									
Manure Type	Dairy	Dairy									
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal									
Total Nitrogen (N) (lbs/ton or 1000 gal)	22.90	22.90									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	12.80	12.80									
Total Organic N (lbs/ton or 1000 gal)	10.10	10.10									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.60	8.60									
Total Potash (K₂O) (lbs/ton or 1000 gal)	13.80	13.80									
Percent Solids	6.00	6.00									
PSC Value (Enter analytical or book value)	0.80	0.80									

Manure Average for Crop	Heifer Pit (Fall)										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	May 17 2022	May 17 2022									
Laboratory Name	Waypoint	Waypoint									
Manure Type	Dairy	Dairy									
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal									
Total Nitrogen (N) (lbs/ton or 1000 gal)	24.00	24.00									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	11.10	11.10									
Total Organic N (lbs/ton or 1000 gal)	12.90	12.90									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	10.40	10.40									
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	26.40	26.40									
Percent Solids	8.00	8.00									
PSC Value (Enter analytical or book value)	0.80	0.80									

Manure Average for Crop	Heifer Pit (Spring)										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	May 17 2022	May 17 2022									
Laboratory Name	Waypoint	Waypoint									
Manure Type	Dairy	Dairy									
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal									
Total Nitrogen (N) (lbs/ton or 1000 gal)	24.00	24.00									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	11.10	11.10									
Total Organic N (lbs/ton or 1000 gal)	12.90	12.90									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	10.40	10.40									
Total Potash (K₂O) (lbs/ton or 1000 gal)	26.40	26.40									
Percent Solids	8.00	8.00									
PSC Value (Enter analytical or book value)	0.80	0.80									

Manure Average for Crop	Pen Pack										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	Jul 05 2022	Jul 05 2022									
Laboratory Name	Waypoint	Waypoint									
Manure Type	Dairy	Dairy									
Manure Unit (lbs/ton or 1000 gal)	lb/ton	lb/ton									
Total Nitrogen (N) (lbs/ton or 1000 gal)	12.40	12.40									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	2.60	2.60									
Total Organic N (lbs/ton or 1000 gal)	9.80	9.80									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	2.90	2.90									
Total Potash (K₂O) (lbs/ton or 1000 gal)	3.14	3.14									
Percent Solids	37.40	37.40									
PSC Value (Enter analytical or book value)	0.80	0.80									

Manure Average for Crop	Field P1 - Grazing Calculator											
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago						
Manure Report Date	Uncollected Book	Uncollected Book										
Laboratory Name	PSU Agronomy Guide	PSU Agronomy Guide										
Manure Type	Other	Other										
Manure Unit (lbs/ton or 1000 gal)	lb/ton	lb/ton										
Total Nitrogen (N) (lbs/ton or 1000 gal)	9.00	9.00										
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)												
Total Organic N (lbs/ton or 1000 gal)	9.00	9.00										
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	3.00	3.00										
Total Potash (K₂O) (lbs/ton or 1000 gal)	7.00	7.00										
Percent Solids												
PSC Value (Enter analytical or book value)	0.80	0.80										

Manure Average for Crop	Field P2 - Grazing Calculator										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	Uncollected Book	Uncollected Book									
Laboratory Name	PSU Agronomy Guide	PSU Agronomy Guide									
Manure Type	Other	Other									
Manure Unit (lbs/ton or 1000 gal)	lb/ton	lb/ton									
Total Nitrogen (N) (lbs/ton or 1000 gal)	9.00	9.00									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)											
Total Organic N (lbs/ton or 1000 gal)	9.00	9.00									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	3.00	3.00									
Total Potash (K₂O) (lbs/ton or 1000 gal)	7.00	7.00									
Percent Solids											
PSC Value (Enter analytical or book value)	0.80	0.80									

Manure Average for Crop	Field P3 - Grazing Calculator										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	Uncollected Book	Uncollected Book									
Laboratory Name	PSU Agronomy Guide	PSU Agronomy Guide									
Manure Type	Other	Other									
Manure Unit (lbs/ton or 1000 gal)	lb/ton	lb/ton									
Total Nitrogen (N) (lbs/ton or 1000 gal)	10.00	10.00									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)											
Total Organic N (lbs/ton or 1000 gal)	10.00	10.00									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	3.00	3.00									
Total Potash (K₂O) (lbs/ton or 1000 gal)	7.00	7.00									
Percent Solids											
PSC Value (Enter analytical or book value)	0.80	0.80									

Manure Average for Crop	Field P4 - Grazing Calculator										
Years. 2023	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	Uncollected Book	Uncollected Book									
Laboratory Name	PSU Agronomy Guide	PSU Agronomy Guide									
Manure Type	Other	Other									
Manure Unit (lbs/ton or 1000 gal)	lb/ton	lb/ton									
Total Nitrogen (N) (lbs/ton or 1000 gal)	10.00	10.00									
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)											
Total Organic N (lbs/ton or 1000 gal)	10.00	10.00									
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	3.00	3.00									
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	7.00	7.00									
Percent Solids											
PSC Value (Enter analytical or book value)	0.80	0.80									

## **Growing Animal Weight Calculator**

Animal Type	Beginning Age	Ending Age		age weight based on age range
Dairy: Holstein/ Brown Swiss-Calf/Heifer 0-24 mo	0 Months	2 Months	145.00	lbs.
Dairy: Holstein/ Brown Swiss-Calf/Heifer 0-24 mo	3 Months	5 Months	310.00	lbs.
Dairy: Holstein/ Brown Swiss-Calf/Heifer 0-24 mo	6 Months	12 Months	585.00	lbs.
Dairy: Holstein/ Brown Swiss-Calf/Heifer 0-24 mo	13 Months	22 Months	979.00	lbs.
Dairy: Holstein/ Brown Swiss-Calf/Heifer 0-24 mo	23 Months	24 Months	1229.00	lbs.

				Calculator to	determi	ne m	anur	e nuti	rients	deposited	by gra	zing a	animal	S	
							Grazin	g Season I	nformation	Total Uncollected Manure deposited	Planned Manure Rate	Weighted A	verage Manu (lb/ton)	ure Nutrients	
Field or CMI ID	IU	Acres	Field and Grazing Group Name	Animal Group	Animal Number	Days on Pasture	Begin Month	End Month	Hours / Day on Pasture	on the field Tons	Uncollected Manure Tons/A	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Grazing Note
P1		2.0	Field P1 - Grazing Calculator	Dry Cows (Fall) - Uncollected	18	35	Jun.	Oct.	12	11.65	5.82	9	3	7	The grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group, 12 hours per day for 35 days, from Jun. to Oct.
										-					
										_					

Ī				Calculator to d	etermi	ne m	anure	e nuti	rients	deposited	by gra	zing a	nimals	6	
							Grazin	g Season I	nformation	Total Uncollected Manure deposited	Planned Manure Rate	Weighted A	Weighted Average Manure Nutrients (lb/ton)		
	Field or CMU ID	Acres	Field and Grazing Group Name	Animal Group	Animal Number	Days on Pasture	Begin Month	End Month	Hours / Day on Pasture	on the field Tons	Uncollected Manure Tons/A	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Grazing Note
2	P2	10.0	Field P2 - Grazing Calculator	Dry Cows (Fall) - Uncollected	18	115	Jun.	Oct.	12	58.24	5.82	9	3	7	Grazing group includes the following animals on pasture: 18 dry cows from the Dry Cows (Fall) animal group,12 hours
				Dry Cows (Spring) - Uncollected	18	60	Apr.	May.	12						per day for 115 days,from Jun. to Oct. 18 dry cows from the Dry Cows (Spring) animal group,12 hours per day for 60 days,from Apr. to May.
										-					

ſ				Calculator to o	letermi	ne m	anure	nuti	rients	deposited	by gra	zing a	nimals	5	
							Grazin	g Season I	nformation	Total Uncollected Manure deposited	Planned Manure Rate	Weighted A	Weighted Average Manure Nutrients (lb/ton)		
	Field or CMU ID	Acres	Field and Grazing Group Name	Animal Group	Animal Number	Days on Pasture	Begin Month	End Month	Hours / Day on Pasture	on the field Tons	Uncollected Manure Tons/A	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Grazing Note
3	Р3	6.0	Field P3 - Grazing Calculator	Heifers (Fall) - Uncollected	80	75	Apr.	Oct.	12	123.35	20.56	10	3	7	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours
				Heifers (Spring) - Uncollected	80	30	Apr.	Oct.	12						per day for 75 days,from Apr. to Oct. 80 dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.

ſ	Calculator to determine manure nutrients deposited by grazing animals														
							Grazing Season Information			Total Uncollected Manure deposited	Planned Manure Rate	Weighted Average Manure Nutrients (lb/ton)		re Nutrients	
	Field or CMU ID	Acres	Field and Grazing Group Name	Animal Group	Animal Number	Days on Pasture	Begin Month	End Month	Hours / Day on Pasture	on the field Tons	Uncollected Manure Tons/A	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Grazing Note
4	P4	6.0	Field P4 - Grazing Calculator	Heifers (Fall) - Uncollected	80	75	Apr.	Oct.	12	123.35	20.56	10	3	7	Grazing group includes the following animals on pasture: 80 dairy heifers from the Heifers (Fall) animal group,12 hours
				Heifers (Spring) - Uncollected	80	30	Apr.	Oct.	12						per day for 75 days,from Apr. to Oct. 80 dairy heifers from the Heifers (Spring) animal group,12 hours per day for 30 days,from Apr. to Oct.

Summary of Total Uncollected Manure Deposited by Animal Groups										
Information fro	om Appendix 3		Anima	ıl Days	Uncollected manure allocated vs generated					
Animal Group	Animal Number	Days on Pasture	Total <u>Animal Days</u> on Pasture from Appendix 3 Values	Sum of <u>Animal Days</u> entered in the Grazing Calculator	Tons Uncollected manure  Allocated in the Grazing Calculator	Tons Uncollected manure <u>Generated</u> in Appendix 3				
Dry Cows (Fall) - Uncollected	18	150	2700	2700	49.92	49.92				
Dry Cows (Spring) - Uncollected	18	60	1080	1080	19.97	19.97				
Heifers (Fall) - Uncollected	80	150	12000	12000	176.22	176.22				
Heifers (Spring) - Uncollected	80	60	4800	4800	70.49	70.49				