

CNM4: Nutrient Mass Balance Report

Starting Year	2022
Reported For	Cumberland LLC
Printed	2022-12-30
Plan Completion/Update Date:	2019-05-29
SnapPlus Version 20.4 built on 2021-06-03	
C:\NMPS\CAFO_Cumberland_LLC\Lucky-Oats.snapDb	

Prepared for:
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Acres/ Crop Year	2022	2024	2025	2026	2027
Spreadable Acres in plan*	1,846.3	1,846.3	1,846.3	1,846.3	1,846.3
Acres receiving manure**	0.0	732.4	1,470.6	1,405.1	1,331.5

* Calculated using SWQMA manure applications strategy of no application within 25 ft.

** Assumes all manure spreading restrictions are followed. Non-spreadable acres not included.

Nutrient Source Summary for 2023

No Rows Found

Annual Pounds of Available N, P2O5 and K2O Applied from Manure and Fertilizer

		2022	2023	2024	2025	2026	2027
Produced from Manure (lb)	N inj	0	0	108,172	216,345	216,345	216,345
	P2O5	414	0	53,122	106,244	106,244	106,244
	K2O	269	0	84,443	168,885	168,885	168,885
Total Available Manure Nutrients Applied (lb)	N inj*	0	0	108,677	220,284	216,646	216,499
	P2O5	0	0	53,382	108,222	106,423	106,386
	K2O	0	0	85,012	172,071	169,315	169,361
Total Fertilizer Nutrients Applied (lb)	N	163,652	150,225	25,225	1,505	1,904	2,013
	P2O5	50,925	64,650	4,763	0	0	1,960
	K2O	214,161	197,390	44,116	22,516	59,940	45,060
Total Crop Removal (lb)	P2O5	94,299	102,024	95,085	121,682	131,581	121,354
	K2O	108,514	112,984	115,718	127,004	195,013	164,628
Nutrient Balance (Applied - Crop removal, lb)	P2O5	-43,374	-37,375	-36,940	-13,460	-25,158	-13,008
	K2O	105,647	84,406	13,411	67,583	34,243	49,793

* This is the first year available N if all manure applied was injected or incorporated within 1 hour, which may not be the case.

Annual Manure Production and Use by Source

Total Value = \$ Value of all nutrients, incorporated including S.

Source		2022	2024	2025	2026	2027
Farrow	Production (Gallons)		1,070,029	2,140,058	2,140,058	2,140,058
	Used (Gallons)		1,104,900	2,153,500	2,154,460	2,149,400
	Analysis Date	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)		8/10/14-6-10	8/10/14-6-10	8/10/14-6-10	8/10/14-6-10
	Dry Matter (%) Total Value		2 0.00	2 0.00	2 0.00	2 0.00
Incenerator Ash	Production (Tons)		10	20	20	20
	Used (Tons)		14	22	24	27
	Analysis Date	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)		3/0/0-11-52	3/0/0-11-52	3/0/0-11-52	3/0/0-11-52
	Dry Matter (%) Total Value		0.00	0.00	0.00	0.00
Sludge	Production (Gallons)	112,000				
	Used (Gallons)	0				
	Analysis Date	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	0/0/0-4-1				
	Dry Matter (%) Total Value	0.00				
swine	Production (Gallons)		3,328,289	6,656,579	6,656,579	6,656,579
	Used (Gallons)		3,328,885	6,790,550	6,660,130	6,657,413
	Analysis Date	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)		17/22/28-14-22	17/22/28-14-22	17/22/28-14-22	17/22/28-14-22
	Dry Matter (%) Total Value		5 0.00	5 0.00	5 0.00	5 0.00
waste Water	Production (Gallons)	112,000				
	Used (Gallons)	0				
	Analysis Date	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	0/0/0-0-1				
	Dry Matter (%) Total Value	0.00				

Estimated Livestock Manure Production for 2023

SnapPlus Nutrient Mass Balance Report

Animal Type	# of animals	Total No. of days	% Collected as Solid	% Collected as Liquid	Yearly Tons	Yearly Gallons
Swine Grow-Finish Pig 150 lbs	4,125	365	0	100	0	1,806,750
Swine Nursery Pig 25 lbs	14,625	365	0	100	0	1,601,438
Swine Sow 275 lbs	7,500	365	0	100	0	2,737,500
Farm Totals					0	6,145,688

Manure Storage Pits for 2023

No Rows Found

Spreaders for 2023

No Rows Found