



# Wet Distillers Grains Trial

Performance and Economic Impact on a 730-cow Wisconsin Dairy

November 2025 – February 2026

# Key Trial Outcomes

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- ✓ Feed cost      ↓ 7.2%
- ✓ Milk production      ↑ 8.7%
- ✓ Butterfat lbs      ↑ 6.1%
- ✓ Protein lbs      ↑ 12.8%

# Background

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## About Specialist Nutrition:

- Over 25 years in business marketing and distributing brewery, distillery & ethanol feed by-products.
- Products include wet brewers' grains, wet distillers' grains, corn distillers solubles, pot ale syrup & DDGs.
- 95% market share in Ireland; market leader across Northeast USA; opened Wisconsin office in January 2025.
- Marketing >600,000 tons annually selling to c. 2,000 farms.
- Offices in Waterford (Ireland), Syracuse (NY) and Madison (WI).

## Why do a trial?

- We know from trading WDGs for 25 years, that it commands a strong loyalty on farm, supports production, drives DM intakes, reduces sorting, adds moisture to the diet, increases palatability, etc.
- In Wisconsin, historically, WDGs had a poor reputation:
  - **High fat content** (11% - 12% on DM basis) which contributed to depressed butterfat.
  - The **product quality was inconsistent**.
  - **Supply was inconsistent**.
  - Other quality issues such as **molding and/or mycotoxins**

# Why WDGs Work Better in Wisconsin Today

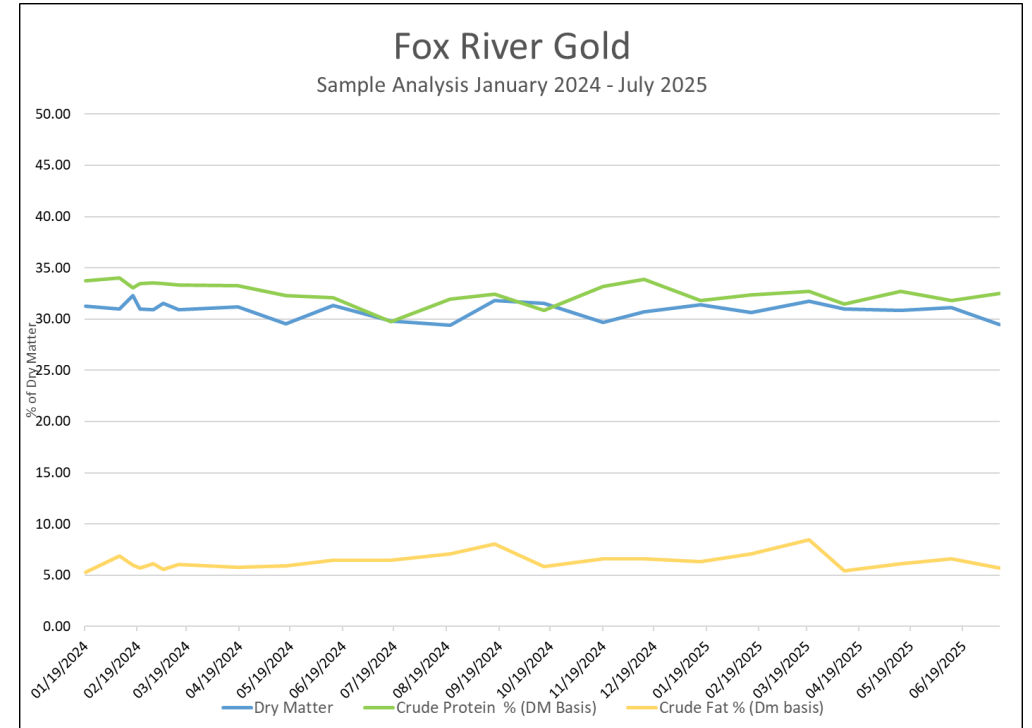
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- **Crude fat now 4% - 6% DM (vs 10% - 12% historically).** Distillers corn oil is a valuable by-product in its own right, so ethanol facilities extract as much DCO as possible from their feed by-products.
- **Consistent, quality product.** We have 2 years of sample analysis available.
- **Propionic acid treatment extends shelf life.**
- **Multiple suppliers** – ensures customer doesn't run out of feed.
- **Managed logistics** – SN works closely with customers to ensure product is delivered when needed.
- **Dedicated ag-haulage partner** – WDGs are produced fresh daily and delivered to farm same day.

# Product Specifications

	Wet Distillers Grains			
	Fox River Valley	AztalanBio	Badger State Ethanol	Western NY Energy
Dry Matter	30.97%	30.03%	51.83%	49.00%
<b>DM Basis:</b>				
Crude Protein	31.48%	41.52%	28.34%	35.10%
Crude Fat	5.41%	4.97%	5.67%	5.50%
TDN	81.01%	83.90%	85.82%	76.30%
NDF	25.54%	32.72%	30.93%	40.38%

Full detailed sample analysis reports are available all products.



Consistent nutritional profile

# Trial Introduction

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- We identified a 730-cow dairy farm in Wisconsin to participate in a trial to measure the performance of wet distillers grains in a typical dairy cow diet.
- Farm nutritionist was fully involved throughout the trial.
- The product used throughout the trial was LionGold (Aztalan Bio Wet Distillers' Grains)
- Date of first load on farm was November 4<sup>th</sup>, 2025.
- Pre-trial data period : 09/02/2025 – 11/11/2025      Allowing for one week of fitting the WDGs into the diet
- Post-trial data period: 11/12/2025 – 02/26/2026
- Feed inclusion rate was 10lbs fresh-weight.

# Product Specification & Feed Rates

**Product Name:** LionGold WDG  
**Sample Product:** Wet Distillers Grains

Test Requested	Results As Received	Results Dry Wt
Moisture (%)	70.08	-
Dry Matter (%)	30.03	-
Crude Protein (%)	12.30	41.52
Crude Fat (%)	1.47	4.97
Crude Fiber (%)	2.50	8.50
Acid Detergent Fiber (%)	5.07	17.04
Neutral Detergent Fiber (%)	9.79	32.72
Ash (%)	0.82	2.76
Calcium (ppm)	85.38	281.00
Copper (ppm)	1.37	4.54
Iron (ppm)	20.53	68.83
Magnesium (ppm)	502.00	1672.47
Manganeses (ppm)	2.42	8.08
Phosphorus (ppm)	0.14	0.48
Potassium (ppm)	2129.20	7068.98
Sodium (ppm)	324.26	1084.00
Sulfur (ppm)	0.14	0.47
Zinc (ppm)	11.23	37.83
Total Available Starch (%)	1.32	19.11
* average of 70 samples across 6 months		

- Product used was Wet Distillers Grains, produced at Aztalan Bio, Johnson Creek, WI.
- Inclusion rate of ≈10lbs per head/day (Fresh Weight)
- Pre-Trial diet = DM intake of 55.6lbs/head/day
- Diet with distillers = DM intake of 55.7lbs/head/day
- After adding WDGs, appropriate changes were made to the needed protein mix by the nutritionist.

# Results – Impact on Cost

## Nutritionists Note:

*“I looked at the ration in October before adding WDG versus the ration in November when you started on the WDG. I also verified the numbers based off the October versus November Income over feed cost report.*

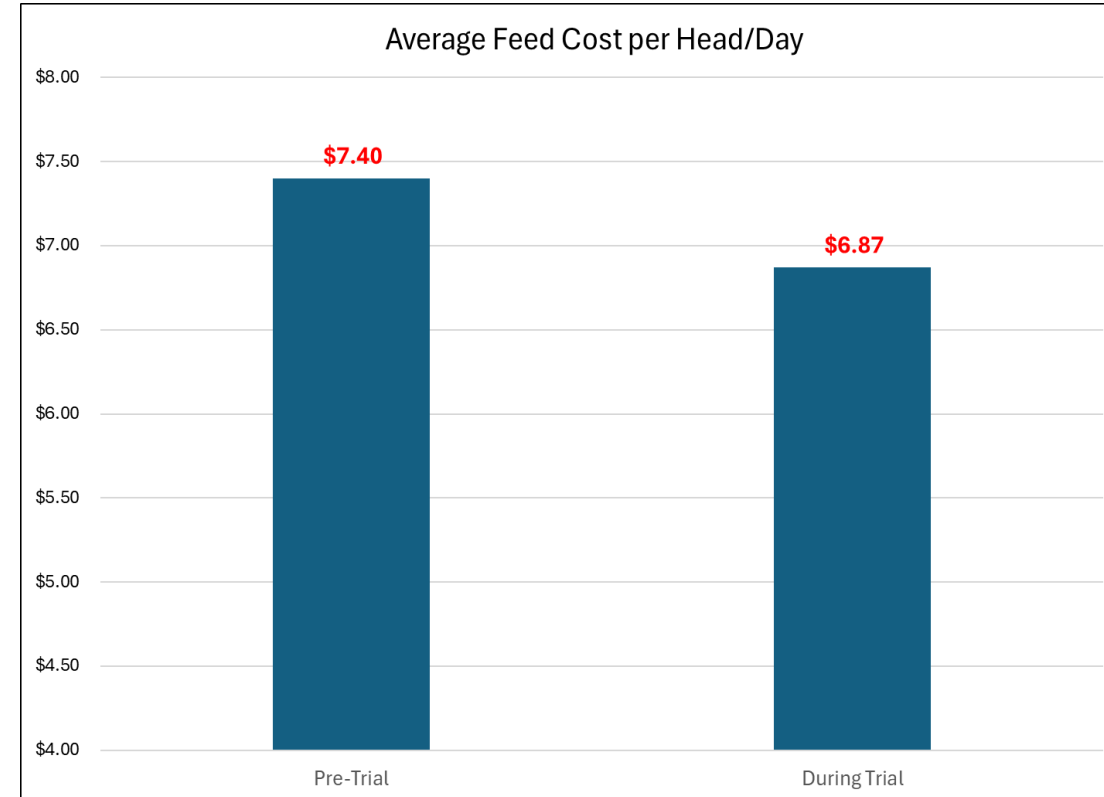
*For October, total feed cost came in at \$7.40/cow/day and at that time I was figuring an average dry matter intake of 55.6#. This ration comes in at 13.3 cents/pound DM*

*After adding the distillers and making any appropriate changes to the needed protein mix, total feed cost in November went to \$6.87/cow/day and dry matter intake was figured at 55.7# for an average. This comes to 12.3 cents/pound DM”*

WDGs were invoiced at full normal on-farm delivered price of \$47.25/t. The farm is approximately 60 miles from the plant. This price was maintained throughout the trial period.

## Findings:

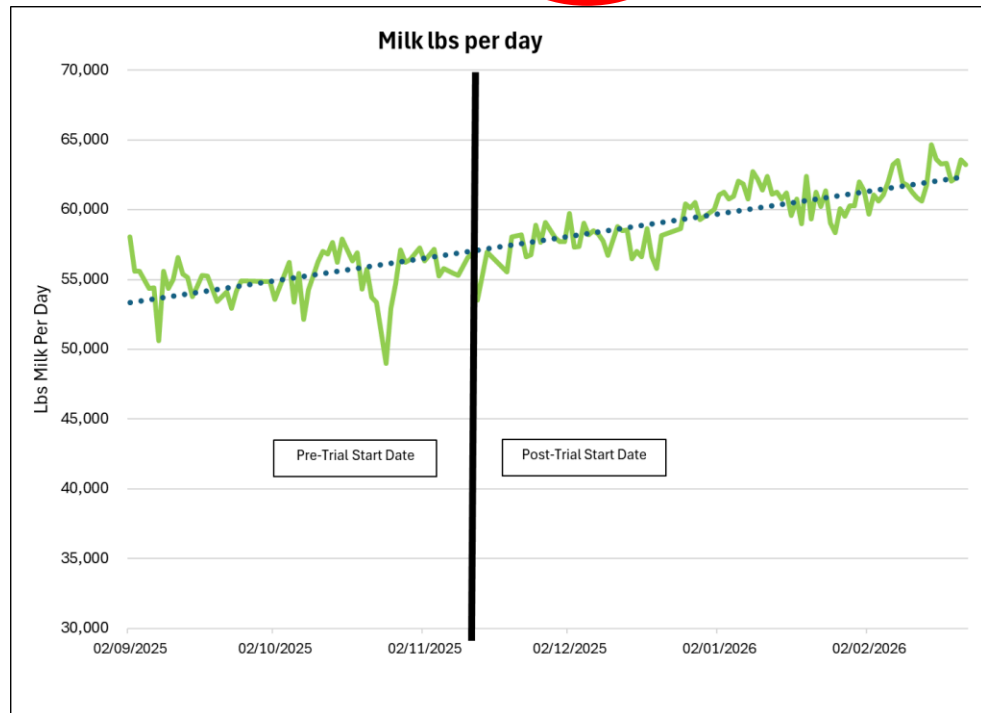
- Feed costs fell from \$7.40 to \$6.87 (per head/day), a reduction of \$0.53 per head/day or 7.2%
- Across 730 cows = approx. annual savings of \$140k.



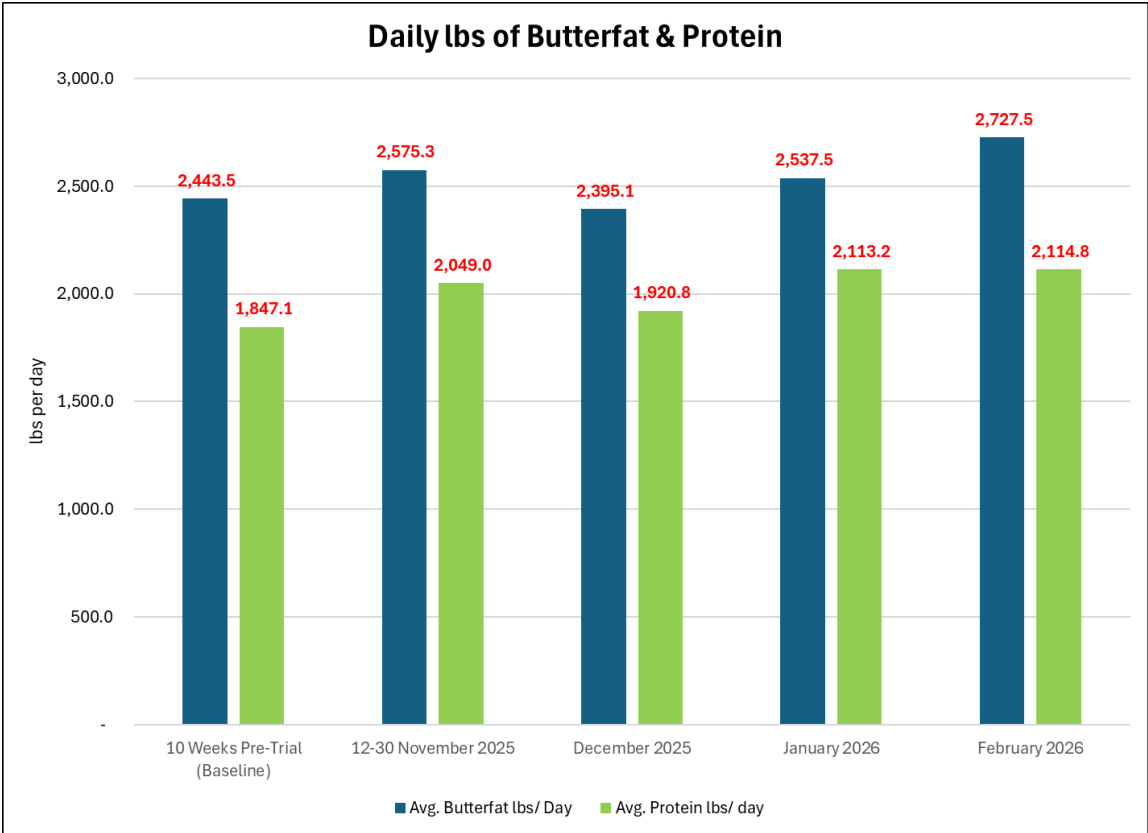
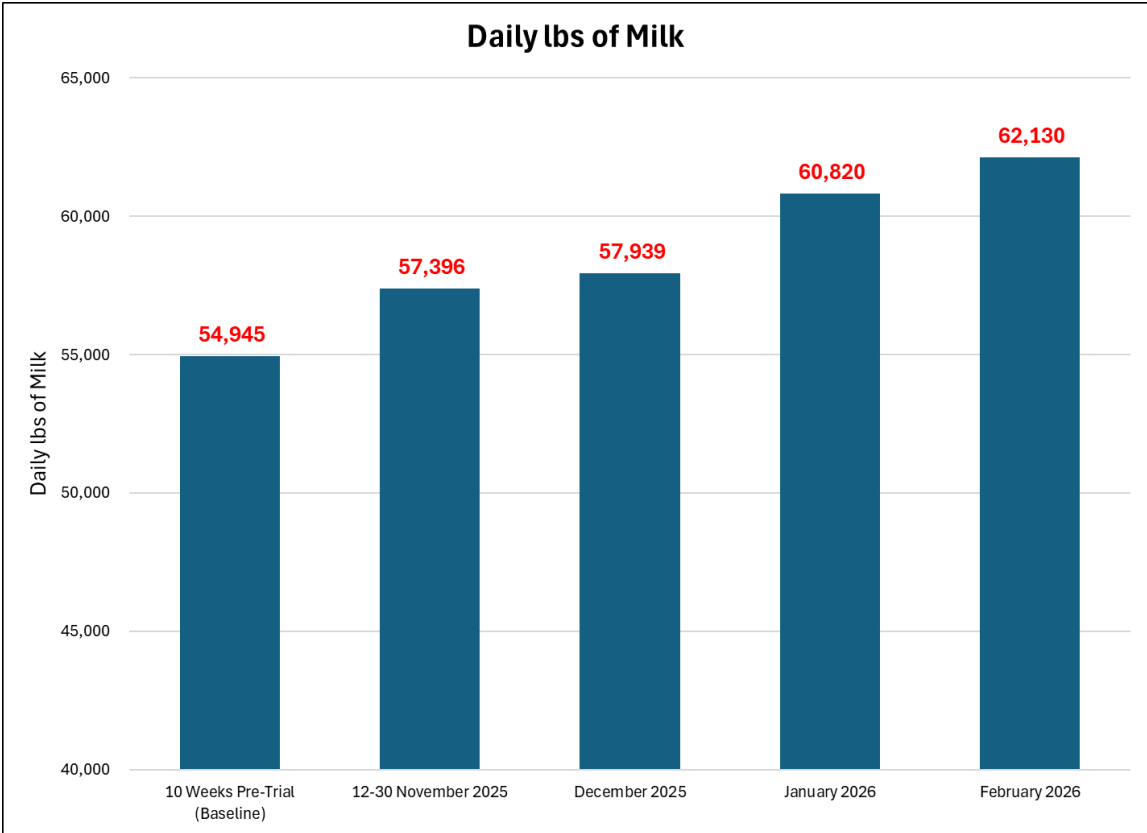
This aligns with an separate feed cost study undertaken by an independent nutritionist which suggested a potential saving of between \$0.43 and \$0.57 per head/day, depending on the amount of corn silage in the diet. Full details of this study are also available.

# Results – Impact on Milk Production

Period	Milk lbs	Avg Milk lbs/day	Avg Milk lbs/day Vs Baseline	Avg. BF%	Avg. Protein %	Avg. Daily Milk lbs per cow	Total Butterfat lbs	Total Protein lbs	Avg. Butterfat lbs/Day	Avg. Butterfat lbs/Day Vs Baseline	Avg. Protein lbs/day	Avg. Protein lbs/Day Vs Baseline
10 Weeks Pre-Trial (Baseline)	3,901,091	54,945	-	4.447	3.362	75.3	173,490	131,142	2,443.5	+0.0%	1,847.1	+0.0%
12-30 November 2025	1,033,126	57,396	+ 2,451	4.487	3.570	78.6	46,356	36,883	2,575.3	+5.4%	2,049.0	+10.9%
December 2025	1,686,421	57,939	+ 2,994	4.403	3.531	79.4	74,249	59,546	2,395.1	-2.0%	1,920.8	+4.0%
January 2026	1,885,412	60,820	+ 5,875	4.172	3.475	83.3	78,661	65,510	2,537.5	+3.8%	2,113.2	+14.4%
<b>February 2026</b>	<b>1,366,864</b>	<b>62,130</b>	<b>+ 7,185</b>	<b>4.390</b>	<b>3.404</b>	<b>85.1</b>	<b>60,005</b>	<b>46,527</b>	<b>2,727.5</b>	<b>+11.6%</b>	<b>2,114.8</b>	<b>+14.5%</b>
Average 11/12/2025 - 02/22/2026	5,971,823	59,718	+ 4,773	4.342	3.490	81.8	259,301	208,432	2,593.0	+6.1%	2,084.3	+12.8%



# Results – Impact on Milk Production cntd



# Summary

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- WDGs delivers substantial feed cost savings. The exact saving will depend on the distance from the ethanol plant to the farm. However, our suppliers are ideally located in the heart of Wisconsin dairy.
- WDGs support improved milk production. Total milk lbs increased throughout the course of the trial as did butterfat and protein lbs.
  - Lower feed costs
  - Increase milk lbs
  - Negligible impact on milk components %
  - Increase milk component lbs

For more information: <https://specialistnutrition.us/low-fat-wet-distillers-grains/>

# Appendix - Trial Data

Delivery Date	Pounds	BF	PRO
09-01-2025	56,923		
09-02-2025	58,040	4.30	3.16
09-03-2025	55,571	4.42	3.25
09-04-2025	55,589	4.41	3.22
09-05-2025	53,860		
09-06-2025	54,343	4.48	3.21
09-07-2025	54,395	4.43	3.20
09-08-2025	50,600	4.65	3.17
09-09-2025	55,580	4.43	3.21
09-10-2025	54,386	4.43	3.18
09-11-2025	55,012	4.44	3.25
09-12-2025	56,580	4.44	3.23
09-13-2025	55,409	4.49	3.22
09-14-2025	55,150	4.47	3.21
09-15-2025	53,783	4.75	3.22
09-16-2025	54,520	4.47	3.24
09-17-2025	55,280	4.50	3.23
09-18-2025	55,255	4.46	3.24
09-19-2025	54,610		
09-20-2025	53,406	4.39	3.18
09-21-2025	54,283		
09-22-2025	54,119	4.66	3.08
09-23-2025	52,923	4.51	3.11
09-24-2025	54,178	4.61	3.14
09-25-2025	54,892	4.50	3.17
09-26-2025	52,287		
09-27-2025	50,086		
09-28-2025	54,093		
09-29-2025	51,470		
09-30-2025	53,930		
<b>1,630,553</b>	<b>4.49</b>	<b>3.20</b>	

Delivery Date	Pounds	BF	PRO
10-01-2025	54,876	4.44	3.25
10-02-2025	53,578	4.49	3.26
10-03-2025	54,850		
10-04-2025	54,438		
10-05-2025	56,235	4.29	3.22
10-06-2025	53,400	4.33	3.23
10-07-2025	55,440	4.28	3.23
10-08-2025	52,120	4.35	3.23
10-09-2025	54,282	4.46	3.33
10-10-2025	55,255		
10-11-2025	56,299	4.20	3.35
10-12-2025	57,043	4.20	3.39
10-13-2025	56,837	4.46	3.39
10-14-2025	57,688	4.40	3.39
10-15-2025	56,220	4.25	3.46
10-16-2025	57,900	4.29	3.46
10-17-2025	57,525		
10-18-2025	56,347	4.26	3.44
10-19-2025	56,932	4.25	3.47
10-20-2025	54,334	4.41	3.48
10-21-2025	55,760	4.38	3.48
10-22-2025	53,723	4.43	3.57
10-23-2025	53,379	4.52	3.56
10-24-2025	52,330		
10-25-2025	48,992	4.87	3.44
10-26-2025	52,934	4.52	3.42
10-27-2025	54,686	4.52	3.50
10-28-2025	57,129	4.42	3.59
10-29-2025	56,233	4.50	3.62
10-30-2025	56,431	4.45	3.65
10-31-2025	55,743		
<b>1,708,939</b>	<b>4.40</b>	<b>3.42</b>	

Delivery Date	Pounds	BF	PRO
11-01-2025	57,276	4.48	3.62
11-02-2025	56,330	4.36	3.61
11-03-2025	57,180		
11-04-2025	57,160	4.78	3.63
11-05-2025	55,246	4.45	3.60
11-06-2025	55,779	4.55	3.65
11-07-2025	55,908		
11-08-2025	55,461	4.44	3.61
11-09-2025	55,280	4.46	3.65
11-10-2025	56,340		
11-11-2025	56,562	4.42	3.63
11-12-2025	56,897	4.50	3.64
11-13-2025	53,500	4.48	3.61
11-14-2025	56,460		
11-15-2025	56,966	4.41	3.56
11-18-2025	56,846		
11-18-2025	59,397		
11-19-2025	55,542	5.05	3.55
11-20-2025	58,075	4.40	3.62
11-21-2025	57,422		
11-22-2025	58,196	4.28	3.56
11-23-2025	56,638	4.33	3.57
11-24-2025	56,756	5.35	3.48
11-25-2025	58,884	4.24	3.51
11-26-2025	57,648	4.32	3.56
11-27-2025	59,116	4.39	3.52
11-28-2025	59,030		
11-29-2025	58,029	4.29	3.61
11-30-2025	57,724	4.29	3.62
<b>1,651,648</b>	<b>4.49</b>	<b>3.59</b>	

Delivery Date	Pounds	BF	PRO
12-01-2025	57,706	4.38	3.59
12-02-2025	59,745	4.47	3.54
12-03-2025	57,337	4.38	3.57
12-04-2025	57,363	4.59	3.59
12-05-2025	59,066	4.40	3.59
12-06-2025	58,207	4.50	3.55
12-07-2025	58,480	4.28	3.53
12-08-2025	58,268	4.63	3.52
12-09-2025	57,782	4.30	3.55
12-10-2025	56,741	4.43	3.60
12-11-2025	58,910		
12-12-2025	58,789	4.26	3.51
12-13-2025	58,480	4.32	3.51
12-14-2025	58,558	4.22	3.53
12-15-2025	56,486	4.58	3.54
12-16-2025	57,014	4.43	3.54
12-17-2025	56,648	4.40	3.54
12-18-2025	58,669	4.43	3.53
12-19-2025	56,605	4.36	3.47
12-20-2025	55,785	4.56	3.50
12-21-2025	58,142	4.35	3.47
12-22-2025	57,780		
12-23-2025	57,551		
12-24-2025	57,220		
12-25-2025	58,652	4.33	3.44
12-26-2025	60,440	4.26	3.47
12-27-2025	60,148		
12-28-2025	60,535		
12-29-2025	59,314		
<b>1,686,421</b>	<b>4.40</b>	<b>3.53</b>	

# Appendix - Trial Data cntd.

<b>Pickup Details</b>			
<b>Date</b>	<b>Man</b>	<b>Tank</b>	<b>Lbs</b>
01/01	132432	1	60,010
01/02	132433	1	61,042
01/03	132434	1	61,257
01/04	132435	1	60,769
01/05	132436	1	60,988
01/06	132437	1	62,052
01/07	132438	1	61,837
01/08	132439	1	60,784
01/09	132440	1	62,745
01/10	132441	1	62,217
01/11	132442	1	61,433
01/12	132443	1	62,401
01/13	132444	1	61,116
01/14	132445	1	61,283
01/15	132446	1	60,767
01/16	132447	1	61,206
01/17	132448	1	59,604
01/18	132449	1	60,748
01/19	132451	1	59,007
01/20	132452	1	62,401
01/21	132453	1	59,340
01/22	132454	1	61,240
01/23	132455	1	60,235
01/24	132456	1	61,383
01/25	132457	1	59,032
01/26	132458	1	58,357
01/27	132459	1	60,058
01/28	132460	1	59,538
01/29	132461	1	60,294
01/30	132462	1	60,277
01/31	132463	1	61,991
<b>Tank Totals</b>		<b>1</b>	<b>1,885,412</b>
<b>Producer Totals</b>			<b>1,885,412</b>

<b>Delivery Date</b>	<b>Pounds</b>	<b>BF</b>	<b>PRO</b>
02-01-2026	61,363	4.19	3.45
02-02-2026	59,691	4.51	3.43
02-03-2026	61,068	4.23	3.43
02-04-2026	60,635	4.22	3.45
02-05-2026	61,069	4.55	3.44
02-06-2026	62,015		
02-07-2026	63,238	4.23	3.42
02-08-2026	63,507	4.29	3.47
02-09-2026	61,946	4.25	3.42
02-10-2026	61,768	4.42	3.42
02-11-2026	61,269	4.22	3.43
02-12-2026	60,862	4.46	3.46
02-13-2026	60,621		
02-14-2026	61,734	4.36	3.41
02-15-2026	64,685	4.37	3.38
02-16-2026	63,618	5.66	3.26
02-17-2026	63,293	4.22	3.32
02-18-2026	63,320	4.21	3.37
02-19-2026	62,064	4.37	3.35
02-20-2026	62,287		
02-21-2026	63,581	4.26	3.36
02-22-2026	63,230		
	<b>1,366,864</b>	<b>4.39</b>	<b>3.40</b>



# Specialist Nutrition

Moist Feed &  
Forage Specialists

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