

Comparing Costs

SYNTHETIC FERTILIZER

Synthetic Fertilizer Cost Breakdown –
Spring 2026

Basic Blend Fertilizer @ \$800.00/ton

Average Applied Rate: 250 lbs/acre

- Nutrients Supplied:
 - 125 lbs of Nitrogen
 - 62.5 lbs of Phosphorus
 - 62.5 lbs of Potassium
- Cost:
 - ~\$100 per acre (spread)
- What You Don't Get in Basic Blend:
 - 0 lbs Calcium
 - 0 lbs Magnesium
 - 0 lbs Micronutrients
 - 0% Organic Matter
 - 0% Organic Carbon
 - No Microbial Life

If you were to buy all of the typical NPK plus nutrient and microbacteria add-ons that compost delivers naturally, it would increase your cost to ~\$213.00 per acre (spread)

Synthetic Fertilizer = Quick Fix



OUR COMPOST

At just \$80–90 per acre[^], all of this nutrient value is naturally included in our compost (applied at 2 Tons/AC rate)

+/- \$41.00* for 65 lbs of Nitrogen (142 lb Urea)

+/- \$75* for 38 lbs of Phosphate (168 lb MAP)

+/- \$12* for 24 lbs of Potassium (48 lb Potash)

+/- \$48* for 340 lbs of Calcium (1,478lb Gypsum)
11 lbs of Magnesium

17 lb of Sulfur

+/- \$37 for 28 lb full micronutrient suite (Zn, Fe, Mn, Cu, B, Cl)

= ~\$213.00/AC of Synthetic Fertilizer if bought individually*

[^] Dependent on acreage and logistics

THE GOOD STUFF:

Along with the nutrients above, our compost also includes:

16% Naturally Occuring Humic Acid

- Feeds your soil biology for 2-3 years

- Supercharges Nutrient Use

- Reduces Nutrient Leaching

2350 lbs of Organic Matter

1175 lbs of Organic Carbons

+/- 5-6 Live Soil Microbe Packs

All of this value can be added to your land at just \$80-90/AC[^]

Feed Your Soil, Not Just Your Crop.

Increase water retention by 27,000 gal/ac annually for every 1% organic matter raised

Compost = Lower Input Costs | Healthier Soil | Higher Sustainable Yields | Exponential Water Retention



COMPONENT TOTAL (LBS) FOR 2 TONS FERTILIZER COMPARISON

NITROGEN (TOTAL N): 65 LBS STEADY N SUPPLY

**PHOSPHORUS (87.5 LB P_2O_5): 38 LBS COMPARABLE TO A MODERATE P
FERTILIZER**

**POTASSIUM (48 LB K_2O): 24 LBS MODERATE K SUPPLY. GREAT FOR WATER
REGULATION, INCREASED FORAGE QUALITY, IMPROVED DISEASE
RESISTANCE**

CALCIUM (CA): 340 LBS STRONG AMENDMENT FOR CALCIUM-LOVING CROPS

MAGNESIUM (MG): 10 LBS GOOD SUPPORT FOR MG-DEFICIENT SOILS

SULFUR (S): 9.30 LBS GREAT FOR SULFUR-DEMANDING CROPS

IRON (FE): 13 LBS HIGH IRON CONTENT, USEFUL IN ALKALINE SOILS

ZINC (ZN): 1 LB EXCELLENT TRACE MINERAL CONTRIBUTION

COPPER (CU): 0.44 LBS IMPORTANT FOR ENZYME FUNCTION IN PLANTS



 **ORGANIC & SOIL HEALTH CONTRIBUTORS
MATERIAL TOTAL (LBS) FOR 2 TONS:**

ORGANIC MATTER: 2350 LBS

**EXCELLENT FOR IMPROVING SOIL TILTH AND WATER
RETENTION**

ORGANIC CARBON: 1175 LBS

FEEDS MICROBIAL LIFE, IMPROVES CARBON CONTENT

ESTIMATED HUMIC ACID: 246 LBS

**(BASED ON 15-16% OF ORGANIC MATTER) – POWERFUL
SOIL ENHANCER**



BENEFITS OF COMPOST

- **INCREASE ORGANIC MATTER IN SOIL (3.0-6.0% PRIME FOR AGRICULTURAL PRODUCTION), MANY FARMS AND WORKED GROUNDS ARE SUB 2%**
- **INCREASE WATER RETENTION BY 27,000 GAL/AC ANNUALLY FOR EVERY 1% ORGANIC MATTER RAISED (1 ACRE FOOT FOR EVERY 20 ACRES)**
- **PROMOTE ROOT DENSITY WITH HIGH CALCIUM AND MAGNESIUM LOAD**
- **INCREASE YIELDS IN BOTH IRRIGATED AND DRYLAND**
- **INCREASES CRUDE PROTEIN LEVELS (INCREASES SEEN UP TO 5% IN CP LEVEL)**
- **ALLOWS SOIL TO EFFICIENTLY USE SYNTHETIC FERTILIZERS IF NEEDED**



Compost Results on Hay Pastures

Results from Wilson County

Hay Farm in Wilson County



- **No Compost applied**
- **Picture taken**
7/9/2024



- **Compost applied at 2**
tons/acre
- **Picture taken 7/9/2024**

Hay Farm in Wilson County (Ran out of compost – 2Tons/Acre)



**COMPOST APPLIED AT 2 TONS/ACRE
DID NOT SPREAD SECTION TO THE RIGHT
NOTICE THE COLOR AND DENSITY DIFFERENCE
BETWEEN THE TWO PLOTS**

Sorghum Fields in Wilson County



**Fertilizer applied, no
compost applied
Field on second cut**



**Field composted and on
second cut, no fertilizer
only compost applied**

Faster Establishment - 10 Day Stand of Ryegrass



2" compost on 2:1 Slope – 10 Day Ryegrass Stand. No stand on right. Both Irrigated.



Picture above from Bioresource Alliance 2016 Conference

Compost top dress sinks down through grass for 100% soil contact

Water Retention



Proper applications of compost
Compost is able to increase
water retention capabilities of
soils.

Studies have shown, for every 1% of Organic Matter increased, an additional 27,000 gallons of water is able to be retained (per NRCS Presentation in California).

With a proper compost application schedule, a 160 acre alfalfa pivot, is able to see a 100,000 gallon water retention capability.



Denser Root Development

To the right is a comparison of the root density on a set of corn stalks.

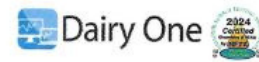
The plant on the right was planted in soil with compost applied, compared to the plant on the left which was planted in soil with commercial fertilizer applied. Observe the expansive network of the root structure.

Compost provides the vital carbon, beneficial micro and macronutrients needed to establish strong growth, increased soil health, and water retention capabilities.



Forage Quality Improvement through Compost

Laboratory number Customer Sample ID		65162451	65162450	65162449
Forage Type Forage Use		Post Compost Mid July Other WSG Hay	First Cut 2024 Pre Compost Other WSG Hay	Eldest Hay 2023 Other WSG Hay
Crude Protein	%	12.9	11.0	11.2
Acid Detergent Fiber	%	39.7	33.9	30.3
TDN-based on ADF	%	55.4	59.2	62.1
Net Energy Lactation	Mcal/lb	0.56	0.60	0.64
		First Cut after applying compost Notice the rise in crude protein levels	First cut of 2024, prior to applying compost	
Nitrate	%	.55	.26	.17



FORAGE TESTING LABORATORY
DAIRY ONE, INC.
730 WARREN ROAD
ITHACA, NEW YORK 14850
607-257-1272 (fax 607-257-1350)

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12/18/24 12/19/24

Sling IT Agronomics LLC
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PO Box 301
Floresville, TX 78114

ENERGY TABLE - NRC 2001

	Mcal/Lb	Mcal/Kg
DE, 1X	1.32	2.91
ME, 1X	1.13	2.49
NEL, 3X	0.65	1.43
NEM, 3X	0.68	1.51
NEG, 3X	0.41	0.91

TDN1X, % 64

Last cut of the season
after applying compost
Crude protein levels
brought all the way to
15.6% from 11.0%
TDN at 64% up from
55.4%

Farmer was able to walk
back his synthetic
fertilizer usage about
50% on his last cuts

Sample Description	Farm Code	Sample
BERMUDAGRASS HAY	115	30516270
Analysis Results		
Components	As Fed	DM
% Moisture	7.9	
% Dry Matter	92.1	
% Crude Protein	15.6	17.0
% Available Protein	15.0	16.3
% ADICP	.6	.7
% Adjusted Crude Protein	15.6	17.0
Soluble Protein % CP		38
Degradable Protein%CP		68
% NDICP	5.4	5.8
% ADF	29.7	32.2
% aNDFom	56.8	61.7
% Lignin	3.1	3.4
% NFC	11.5	12.5
% Starch	1.2	1.3
% WSC (Water Sol. Carbs.)	5.7	6.2
% ESC (Simple Sugars)	5.5	6.0
% Crude Fat	2.5	2.7
% Total Fatty Acids	.97	1.05
% C18:1, Oleic	.04	.04
% C18:2, Linoleic	.10	.11
% C18:3, Linolenic	.23	.25
% RUFAL	.37	.40
% Ash	5.72	6.21
% TDN	59	64
NEL, Mcal/Lb	.52	.57
NEM, Mcal/Lb	.56	.61
NEG, Mcal/Lb	.32	.35
% Calcium	.45	.49
% Phosphorus	.27	.29
% Magnesium	.19	.21
% Potassium	1.83	1.99
% Sulfur	.37	.40
% Chloride Ion	.69	.75
% Lysine	.55	.59
% Methionine	.20	.22
Horse DE, Mcal/Lb	.89	.96
% uNDFom 30hr		29.7
% uNDFom 120hr		23.7
% uNDFom 240hr		21.0
NDFDom 30hr, % of NDF		51.9
NDFDom 120hr, % of NDF		61.6
NDFDom 240hr, % of NDF		66.0



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