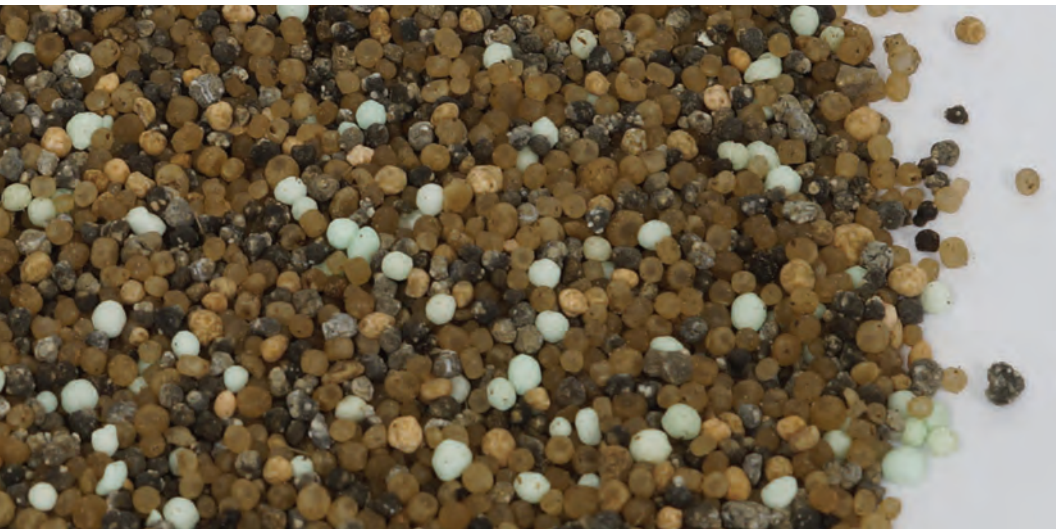




BETTER FARMING THROUGH BETTER SOIL™



FERTILIZER & SOIL AMENDMENT PRODUCT CATALOG

MidwesternBioAg.com



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TABLE OF CONTENTS

New! TerraNu Nutrient Technology™	2
Dry Fertilizer Blends.....	4
Dry Fertilizer Ingredients.....	6
Soil Amendments	9
Liquid Products.....	10
Our Services.....	12

ABOUT MIDWESTERN BIOAG

Midwestern BioAg manufactures and distributes fertilizers that build soil health while increasing yields and nutritional quality of both food and forage. Its products and practices engage soil life, enhance nutrient use efficiency, build soil organic matter, improve crop resiliency and increase the long-term productivity of farmland. Founded in 1983, the Wisconsin-based company has facilities across the Midwest.



800.327.6012
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TECHNOLOGY BREAKTHROUGH

TerraNu Nutrient Technology™

The Next Generation of Plant Nutrition

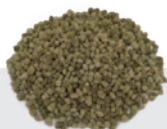
Nutrients in a Manure Matrix for Better Coverage & Improved Uptake

TerraNu fertilizers deliver essential nutrients in a manure matrix for enhanced fertilizer performance and more root exchange sites. Using TerraNu Nutrient Technology™, nutrients are infused into a manure matrix granulated for precise, uniform application. Nutrients in TerraNu fertilizers are bound to manure, so they are easily pulled into the soil biology, allowing for immediate and season-long availability.



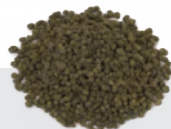
TerraNu MicroPack™

TerraNu MicroPack supplies 11 nutrients infused into a granulated manure matrix for precise, uniform application.



TerraNu Ignite™

TerraNu Ignite delivers NPK and other essential nutrients in a manure matrix to improve nutrient efficiency and performance.



TerraNu Calcium™

TerraNu Calcium blends calcium, sulfur and other essential nutrients into a manure matrix that is granulated for uniform application.

Easy to Handle, Blend & Apply

Liquid manure provides many of the nutrients needed to support plant growth. It can also increase soil organic matter by building carbon levels in the field.

However, hauling manure more than a few miles from the farm can be difficult and expensive. While it can be useful when spread in the right amounts, over-application can lead to environmental problems, including the leaching of phosphorous and nitrogen into water supplies.

TerraNu Nutrient Technology provides a solution to the handling challenges of manure application. The process transforms liquid manure into a uniform, granulated fertilizer that can be shipped inexpensively, easily blended and precisely applied.

TerraNu Fertilizer vs. Liquid Manure		
Benefit:	TerraNu:	Liquid Manure:
Easy to apply	✓	
Uniform nutrient application	✓	
Guaranteed analysis	✓	
Feeds soil microbes	✓	✓
Granulated	✓	
Low moisture	✓	
Supplies micronutrients	✓	✓
Easy to blend	✓	
Easy to ship	✓	
Builds soil health	✓	✓
Lightweight	✓	
Supplies NPK	✓	✓
Can be precision applied	✓	

See pages 4-6 for additional product information, or visit MidwesternBioAg.com to learn more.

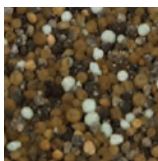
DRY FERTILIZER BLENDS

At Midwestern BioAg, we build crop yields by building soil health.

We enhance your basic NPK program with calcium, sulfur, micronutrients – including zinc and boron – and organic matter. Our exclusive manure-based TerraNu MicroPack gives you an efficient and cost-effective level of micronutrients wherever you apply them. These ingredients support soil microbes, which draw the applied nutrients into the soil food chain to keep nutrients where they belong – in the plants, the crops and the food.

Our blends match your soil type and cropping system with nutrients in both soluble and slow-release forms. This ensures season-long performance and strong yields in the first season, as well as long-term improvements to your soil health.

We often ask the question: Is your fertilizer building soil health? With our blends, the answer is always yes!



CUSTOM FERTILIZER BLENDS

FOR ALL CROP & SOIL TYPES

We can build custom fertilizer blends to match your soil type, your crop needs and your budget. We'll select the precise amount of nutrients needed to correct deficiencies in your soil while building soil health and yields.



TERRANU BLEND 21-5-4

FOR CORN • 250-400 LBS/AC

This blend contains TerraNu Ignite, ESN and ammonium sulfate to meet the needs of nitrogen-demanding crops. TerraNu Ignite supplies a full profile of crop nutrients in a granulated manure matrix for improved nutrient efficiency and performance.



TERRANU BLEND 3-5-24

FOR ALFALFA & SOYBEANS • 300-400 LBS/AC

This high-potassium, low-chloride blend is a full-season crop fertilizer for alfalfa, soybeans and other potassium-demanding crops. It features TerraNu Ignite as a complete nutrient and organic matter source, and supplies high amounts of sulfur to support complete plant protein formation, generating high-quality, high-yielding crops.



TERRANU BLEND 7-16-12

FOR ALFALFA, SOYBEANS & CORN • 300-400 LBS/AC

Blended with TerraNu Ignite for enhanced nutrient efficiency and performance, this balanced starter contains low-chloride sources of highly available phosphorus to support vigorous early root growth. TerraNu Ignite supplies a full profile of nutrients in a granulated manure matrix.



15-5-5

FOR CORN & GRASS BLENDS • 250-400 LBS/AC

15-5-5 is a corn and grass-blend fertilizer for medium- to high-testing P and K soils. In addition to being an excellent corn starter, 15-5-5 supports high-quality pastures all season. It features TerraNu Nutrient Technology as a complete micronutrient source, as well as AMS for nitrogen availability late into the season.



5-8-12

FOR SOYBEANS & ALFALFA • 250-400 LBS/AC

5-8-12 is a great soybean starter and alfalfa fertilizer for high-testing P and K soils. It features TerraNu Nutrient Technology as a source of essential micronutrients, and contains potassium sulfate (SOP) and sulfate sulfur for stronger starts and healthier plants.



9-10-15

FOR CORN & SOYBEANS • 250-400 LBS/AC

An excellent corn and soybean starter, 9-10-15 fits well on medium- to high-testing P and K soils. It is blended with TerraNu Nutrient Technology as a source of essential micronutrients and organic matter, as well as AMS and potassium sulfate.



2-4-30

FOR ALFALFA • 300-600 LBS/AC

2-4-30 is our premier fertilizer for high-yielding alfalfa. It is blended with SOP, which supplies the potassium and sulfur needed to support high-yielding forage crops and complete plant protein formation. This high-potassium, low-chloride blend also contains TerraNu Nutrient Technology as a source of essential micronutrients and organic matter.

DRY FERTILIZER INGREDIENTS

We select the highest-quality, most plant-available ingredients for all our fertilizer blends. Our proprietary products go beyond NPK by supplying plants and soil life with calcium, sulfur, micronutrients and organic matter. From uniform, granular micronutrient packs, to NPK products with season-long availability, our fertilizer ingredients will help you maximize nutrient efficiency all season.



TERRANU IGNITE™

ESSENTIAL CROP NUTRIENTS IN A MANURE MATRIX

TerraNu Ignite delivers NPK and other essential nutrients in a manure matrix to improve nutrient efficiency and performance. Every granule of TerraNu Ignite carries a guaranteed nutrient analysis for uniform application in the field. Add TerraNu Ignite to your fertilizer program to increase nutrient uptake efficiency and reduce loss from leaching.



TERRANU MICROPACK™

MICRONUTRIENTS IN A MANURE MATRIX

TerraNu MicroPack is one of the most efficient and effective micronutrient fertilizers. Beyond NPK, TerraNu MicroPack supplies eight additional nutrients infused into a granulated manure matrix for precise, uniform application. For complete crop nutrition, add TerraNu MicroPack to your fertilizer blend to maximize your crop's yield potential.



TERRANU CALCIUM™

CALCIUM, SULFUR & BORON IN A MANURE MATRIX

TerraNu Calcium blends calcium, sulfur and other essential nutrients into a manure matrix that is granulated for precise, uniform application. Apply TerraNu Calcium for improved nutrient uptake, increased soil biological activity and improved crop yields.



MICROHUME®

HUMATE-BASED MICRONUTRIENT PACK • OMRI LISTED

MicroHume is a humate-based micronutrient package formulated to improve plant uptake of essential micronutrients. MicroHume is precision engineered to efficiently distribute micronutrients evenly across fields. Each uniform pellet supplies zinc, calcium, sulfate sulfur, boron, copper and manganese.



CHICKEN MANURE CRUMBLES

ORGANIC NITROGEN SOURCE • OMRI LISTED

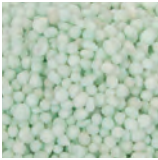
Crumbles are an OMRI-listed source of nitrogen, soluble calcium and micronutrients. Crumbles can add the many benefits of manure into any fertilizer blend, helping to improve soil organic matter and overall soil tilth and structure.



PELLETIZED ROCK PHOSPHATE

SLOW-RELEASE PHOSPHORUS • OMRI LISTED

Pelletized rock phosphate supplies crops with slow-release phosphorus, calcium and small amounts of micronutrients. It builds soil phosphorus levels and provides plant-available phosphorus all season long.



ESN®

SEASON-LONG NITROGEN

ESN (44-0-0) is a polymer-coated nitrogen fertilizer that delivers time-released nitrogen to crops based on soil temperature and moisture levels. It supplies nitrogen throughout early plant growth stages, making it an excellent source of nitrogen where side-dressing is not an option.



AMMONIUM SULFATE (AMS):

STABLE NITROGEN & SULFUR SOURCE

Ammonium sulfate (21-0-0-24S) is an excellent source of plant-available nitrogen and sulfate sulfur. It is more stable in the soil since it is in the ammonium form, which helps reduce losses to leaching and volatilization compared to nitrate-based nitrogen



MONOAMMONIUM PHOSPHATE (MAP)

LOW-PH PHOSPHORUS SOURCE

Monoammonium phosphate (11-52-0) has the highest phosphate content of any dry fertilizer. It is low pH, lower in ammonia and is a soluble phosphorus source that is ideal for neutral- to high-pH soils.



PROTASSIUM+®

LOW-CHLORIDE POTASSIUM & SULFUR • OMRI LISTED

Protassium+ (0-0-50-17S), or potassium sulfate, is a stable, low-chloride and slow-release potassium and sulfate sulfur source. With its low salt index, Protassium+ is the preferred potassium source to improve crop yields and quality.



POTASSIUM CHLORIDE (KCL)

COST-EFFECTIVE POTASSIUM

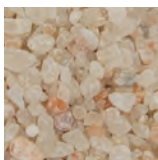
Potassium chloride (0-0-60), or muriate of potash, contains 47 percent chloride. It is a more cost effective source of K and should only be used in soils that are low in magnesium or extremely high in calcium.



K-MAG PREMIUM®

SOLUBLE POTASSIUM

K-Mag (0-0-21-21S-11Mg), or potassium magnesium sulfate, is water soluble and will work immediately upon application. It is a highly plant-available source of potassium, magnesium and sulfur. K-Mag is low in chloride and does not affect soil pH.



INTREPID TRIO®

LOW-CHLORIDE POTASSIUM • OMRI LISTED

Intrepid Trio (0-0-22-22S-11Mg), or sulfate of potash magnesia, is a low-chloride and low-pH potassium fertilizer. Each granule supplies potassium, sulfur and magnesium in the same ratio, ensuring that all three minerals are available to the plant when needed.



SUPERCAL SO4®

PELLETIZED GYPSUM

SuperCal SO4 pelletized gypsum (0-0-0-21Ca-17S) provides soluble calcium and sulfate sulfur. It improves soil structure, aeration and drainage, resulting in reduced soil surface crusting and improved seedling emergence.



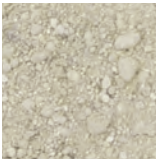
FEATHER MEAL

SEASON-LONG NITROGEN • OMRI LISTED

Feather meal (13-0-0) is derived from poultry processing. It is a semi-slow release organic nitrogen source that supplies nitrogen for up to three months. It also supplies chelated calcium and stimulates soil biology.

SOIL AMENDMENTS

Nutrient deficiencies and acidic soils are serious yield-limiting factors. It takes more than NPK to unlock your crop's full genetic potential — plants need a wider range of nutrients to maximize growth. Calcium and sulfur are just a few of the nutrients needed to support crop production. With our line of soil amendments, producers can correct nutrient deficiencies and improve pH levels to optimize plant growth on their farms.



BIO-CAL®

SOLUBLE & SLOW RELEASE CALCIUM

Bio-Cal is a bulk-applied soil amendment that supplies 32 percent calcium. It provides multiple sources of soluble and slow-release calcium, ensuring calcium availability upon application and all season long. Bio-Cal is an efficient and effective way to quickly build soil calcium levels at all pH ranges.



ORGANICAL™

SOLUBLE & SLOW RELEASE CALCIUM & SULFUR • OMRI LISTED

OrganiCal is an OMRI-listed calcium and sulfur soil amendment that improves crop quality, yields and soil structure. OrganiCal contains two calcium sources — finely ground gypsum and high calcium lime. It quickly builds calcium levels in the soil and is available to plants at all pH ranges.



SUPERCAL 98G®

98% PURE CALCITIC LIMESTONE

SuperCal 98G pelletized lime (0-0-0-36Ca) provides quicker, more consistent results than traditional agricultural lime. It is 98 percent pure calcitic limestone, ground ultra-fine for maximum effectiveness, and then pelletized for precision application and efficiency.



TENNESSEE BROWN ROCK

SLOW-RELEASE PHOSPHORUS

Tennessee Brown Rock (TBR) is one of the cleanest slow-release phosphorus sources available. It also contains about 20 percent calcium and provides a full spectrum of micronutrients at low-levels.



DB CHICKEN MANURE

COMPOSTED CHICKEN MANURE

DB Chicken Manure is composted chicken manure from layers. This product is intended for bulk-spread application and is an excellent source of N, P and K.

LIQUID PRODUCTS

We carry a complete line of liquid products, including liquid carbon-based fertilizers (L-CBF), soil stimulants and water treatment products.



L-CBF BOOST™

LIQUID CARBON-BASED FERTILIZER

L-CBF BOOST 4-0-3-2S is a liquid carbon-based additive designed to improve the efficiency and performance of your liquid fertilizer program. Derived from cane molasses, BOOST helps stimulate soil biology in early spring and cycle nutrients in the soil.



L-CBF 7-21-3 MKP

LIQUID CARBON-BASED STARTER

L-CBF 7-21-3 is a liquid carbon-based fertilizer derived from sugar cane molasses and quality plant nutrients. It delivers the soil-health benefits of the L-CBF product line while providing high amounts of plant-available phosphorus to fit most liquid starter programs.



L-CBF 10-14-1

LIQUID CARBON-BASED STARTER

L-CBF 10-14-1 is a liquid carbon-based starter fertilizer derived from cane molasses and quality plant nutrients. The sugar in 10-14-1 helps stimulate soil biology in early spring, improving both nutrient efficiency and plant availability.



L-CBF TERRAFED™

LIQUID CARBON-BASED FERTILIZER • OMRI LISTED

L-CBF TerraFed 1-0-3 is a liquid carbon-based fertilizer derived from sugar cane molasses. It delivers quality plant nutrients in a cane-molasses base to stimulate soil biology in early spring and cycle nutrients in the soil.



KELPAK

LIQUID SEAWEED CONCENTRATE • ORGANIC APPROVED

Kelpak is a liquid seaweed concentrate derived from kelp. It helps promote root development and increases root tip growth for better plant nutrient and water uptake. Kelpak is organic-approved by WSDA NOP.



GROWER'S SECRET NITROGEN

WATER-SOLUBLE NITROGEN • OMRI LISTED

Grower's Secret Nitrogen (12-0-0) is a water-soluble nitrogen product derived from soy protein hydrolysate. It can be used as a nitrogen source in organic and conventional production to help plants grow quickly, increase seed and fruit production and improve plant quality.



CALCINE®

WATER TREATMENT PRODUCT FOR SODIC SOILS

When added to irrigation water, Calcine mobilizes salts out of the root zone and improves soil productivity. Reducing soil salinity improves soil health by increasing water-holding capacity and infiltration, reducing compaction and boosting rates of earthworm establishment.



For additional information on Midwestern BioAg products, visit MidwesternBioAg.com.

OUR SERVICES

At Midwestern BioAg, we understand that every acre, every farm and every farmer is unique. That's why each Midwestern BioAg customer is paired with a knowledgeable farm consultant to help unlock their soil's potential and grow healthier, higher-yielding crops and livestock. Our consulting services include assistance with soil test interpretation and fertilizer recommendations, forage analysis and ration balancing.



SOIL TESTING

Making informed input decisions for your farm starts with a soil test. At Midwestern BioAg, we conduct comprehensive secondary and trace mineral analyses that go beyond the standard P-K and pH soil test to identify yield-limiting factors. We offer two types of soil testing: Grid and non-grid soil sampling.



FERTILIZER APPLICATION

Midwestern BioAg offers two dry fertilizer application options to our customers: Spreader carts and floater trucks. Whether you want to apply your own fertilizer, or have our trained floater applicators spread it for you, we have the staff and equipment available to get your fertilizer on the field when you need it most.



FORAGE ANALYSIS

Just like soil testing, we recommend our producers test their forages to ensure livestock are getting the nutrition they need for optimal performance. Working with the test results, our nutrition specialists will precisely balance farm rations using our complete line of livestock nutrition products.



PLANT TISSUE ANALYSIS

Plant tissue analysis enables growers to measure the nutrient content of plants and help correct crop nutrition problems before harvest. Together, plant tissue analysis and soil tests are an excellent measure of yield potential and can help growers identify limiting factors on their farms.



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