

**MORE BUSHELS FOR LESS**



**PERFORMANCE** In Every Pass

# **CROP YEAR 2024 PRODUCT GUIDE**



**MERISTEMAG.COM**  
**1-833-637-4783 (MERISTEM)**



# CROP YEAR 2024 PRODUCT GUIDE

Welcome to the Meristem Crop Performance® 2024 product guide. In this book you will find all the right tools to help your farmers improve nutrient use efficiency, build strong healthy plants fast, and optimize in-season genetic potential—delivering more bushels for less.

All of these tech sheets and more resources are available at MeristemAg.com. If you need printed materials, contact your Sales Support Manager or Meristem representative.

## HOW THE MERISTEM PORTFOLIO BRINGS PERFORMANCE IN EVERY PASS



### **Nutrient Use Efficiency**

Bio-friendly Nitrogen management.  
Unlock nutrients tied up in crop residue and build healthy soils through increased biological activity.



### **Build Strong, Healthy Plants Fast**

Deliver biofertilizers and biostimulants to the furrow that fix N, solubilize nutrients, and increase root structures.



### **Optimize In-Season Genetic Potential**

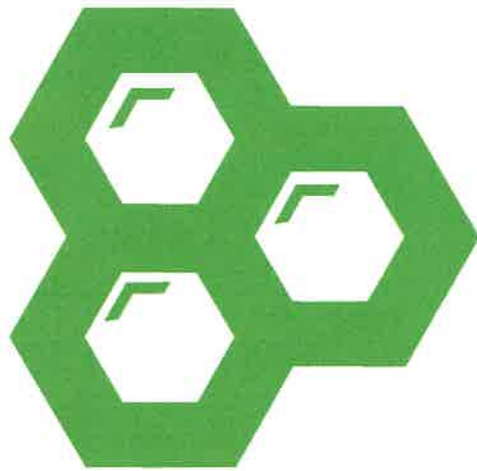
Provide essential nutrition and stress management solutions in-season.

1. Reducing waste and driving real productivity gain
2. Bringing to market practical innovations in biological delivery systems
3. Building the best adjuvant systems to improve spray tank performance



**CROP PERFORMANCE**

# Nutrient Use Efficiency



## **Nutrient Use Efficiency**

Bio-friendly Nitrogen management. Unlock nutrients tied up in crop residue and build healthy soils through increased biological activity.





# Residue Management

**MERISTEM**<sup>®</sup>  
**CROP PERFORMANCE**



# EXCAVATOR®

CROP RESIDUE BREAKDOWN  
& NUTRIENT RELEASE AID

POWERED BY

**MICROBILIZE™**  
MICROBE TECHNOLOGY DELIVERY SYSTEM

EXCAVATOR® is specifically designed to break down crop residue in the field, improving planter performance, creating stronger stands and releasing valuable nutrients to feed the crop.

The patent-pending formulation of EXCAVATOR is powered by the MICROBILIZE™ Microbe Technology Delivery System. This system provides the ideal carrier to ensure that microbes stay alive in the jug and have the optimum conditions to begin multiplying and breaking down residue.

The consortium of microbes included in EXCAVATOR are specifically designed to digest crop residue and cycle nutrients back to the soil profile. Additionally, these microbes build improved soil tilth, reduce disease pressure and generate overall increased biological activity.

## GUARANTEED ANALYSIS:

Alkyl Polyglucoside (surfactant)	35%
Organic acids (pH buffer)	5%
Rheology and dispersant agents	5%
Fulvic Acid	1%
	CFUs/gallons*
Bacillus coagulans	$5.54 \times 10^7$
Bacillus amyloliquefaciens	$6.24 \times 10^7$
Bacillus licheniformis	$2.12 \times 10^8$
Bacillus megaterium	$6.24 \times 10^7$
Bacillus pumilus	$1.62 \times 10^8$
<b>Total CFUs</b>	<b><math>5.55 \times 10^8</math></b>

\*In the final liquid form, contains 2.1 Trillion total colony forming units (CFUs) per gallon ( $2.1 \times 10^{12}$  CFU/gal) of the above microbes (1 gm = 1 ml).

## 3:1 RETURN ON INVESTMENT

Through multi-location/multi-state research trials, EXCAVATOR has proven to deliver a 3:1 return on investment through one or a combination of the following benefits.



Breaking down residue faster will allow faster planting, stronger stands and fewer skips

**\$25/ac**



More nutrients available early

**\$39/ac**



Less tillage required

**\$18/ac**



Improve soil health

**12%+**  
in soil health index

## DIRECTIONS FOR USE

Apply EXCAVATOR to any crop residue.

### FALL APPLICATIONS

Apply immediately after harvest for best performance.

### SPRING APPLICATIONS

Apply with early herbicide application or in the termination of cover crops.

### SUMMER APPLICATIONS

Ideal for breaking down wheat stubble. Specific timing for optimal use varies based on tillage practices, fertility levels and other factors. Contact your agronomist for specific recommendations.

*Works well with irrigation systems and drone applications.*

## RECOMMENDED USE RATE

Apply 12.8 oz per acre with a minimum 10 gal of water. Highly compatible tank mix partner with most herbicide and fertility programs.

## PRODUCT AVAILABILITY

Available in 2x2.5 gallon jugs (36 cases per pallet), 250-gallon totes or bulk.

**Density:** 9.42 lb/gal

**Specific Gravity:** 1.13 @ 68°F (20°C)

**Min. Storage Temp:** 15° F

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# MAINTAIN™

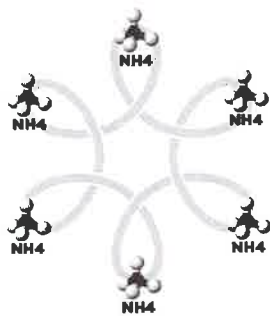
## ELITE NITROGEN MANAGEMENT SYSTEM

EXTEND NITROGEN AVAILABILITY  
AND UPTAKE AND REDUCE  
NITROGEN LOSS DUE TO LEACHING

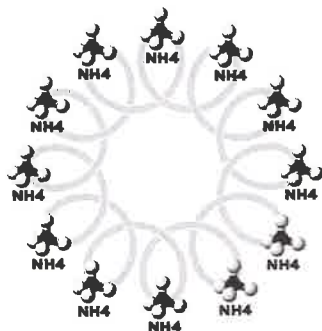
Farmers that drive for consistent profits know that season-long availability of nitrogen is critical to maximizing corn yields. MAINTAIN™ ELITE utilizes an improved formulation to extend nitrogen availability and uptake and reduce nitrogen loss. MAINTAIN ELITE provides more calcium and enhanced polymer technology. It is intended for use as an additive to anhydrous ammonia and liquid fertilizer applied below ground.

**Micro-Chain Technology** captures and maintains more nitrogen in the upper root zone, increasing nitrogen uptake and utilization. The NH<sub>4</sub> molecules are more densely packed, leading to more binding sites to limit nitrogen loss.

OLD POLYMER



MICRO-CHAIN TECHNOLOGY



### PRODUCT BENEFITS

- Does not kill biologicals or beneficial bacteria
- Reduces leaching of nitrogen to groundwater
- Does not corrode equipment
- Manages nitrogen during key growth stages
- No planting restrictions

### ACTIVE INGREDIENTS

Calcium.....	10.0%
Poloxethylene Glycol, Co-Polymer.....	28.0%
Other Proprietary Ingredients.....	62.0%
TOTAL.....	100.0%

### ALSO CONTAINS NON-PLANT FOOD INGREDIENTS

Carboxylic and Organic Acids

### DIRECTIONS FOR USE

#### ANHYDROUS AMMONIA:

Operator must follow all anhydrous safety precautions. Inject MAINTAIN ELITE through liquid ll valve. If pressure exceeds 150 psi, inject MAINTAIN ELITE through liquid withdraw valve. Proper maintenance is required. Flush valve thoroughly with anhydrous. Coat ll valve thoroughly with a petroleum or silicone based lubricant. Apply treated anhydrous using conventional anhydrous application equipment.

#### LIQUID FERTILIZER:

Liquid fertilizers containing high levels of phosphate should not be used with MAINTAIN ELITE. If pesticides are added to tank mix in conjunction with liquid fertilizers, a compatibility jar test should be performed prior to large scale application to field.

### RECOMMENDED USE RATES

**Anhydrous Ammonia:** Use 6 oz. of per 50 units of Nitrogen, up to a maximum use rate of 24 oz. per acre.

**UAN Solutions (28-32%):** 2 quarts per ton of total solution

**Liquid Manure:** 24-32 oz per acre

### PRODUCT AVAILABILITY

Available in 2x2.5 gallon jugs (36 cases per pallet), 250-gallon totes or bulk.

**Density:** 12.0 lb/gal

**Specific Gravity:** 1.44 at 68°F (20°C)

**Storage:** Store above 32°F (0°C). Do not allow product to freeze.

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# N-GEAR® DUAL ACTION

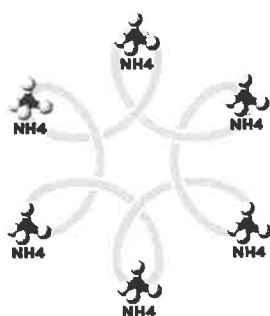
NITROGEN STABILIZATION

PREMIUM ABOVE AND BELOW  
GROUND, BIO-FRIENDLY NITROGEN  
MANAGEMENT SYSTEM

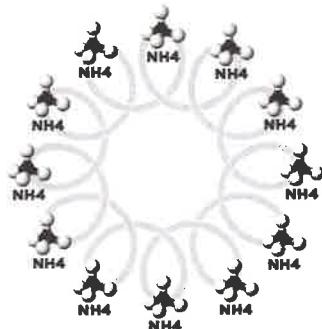
N-GEAR® DUAL ACTION gives you flexibility of both above and below ground nitrogen protection. N-GEAR DUAL ACTION is specifically formulated for use in urea and UAN scenarios.

**Micro-Chain Technology** captures and maintains more nitrogen in the upper root zone, increasing nitrogen uptake and utilization. The NH<sub>4</sub> molecules are more densely packed, leading to more binding sites to limit nitrogen loss.

OLD POLYMER



MICRO-CHAIN TECHNOLOGY



## PRODUCT BENEFITS

- **Dual-action protection**
  - Up to three weeks of above-ground protection from volatilization
  - Reduces nitrogen loss below ground due to leaching
- Increases nitrogen efficiency, availability and uptake
- Formulated to help build soil biological activity
- Non-toxic with no detrimental effects on soil bacteria and non-corrosive to equipment
- Specifically formulated for urea and UAN, and can be used with multiple fertilizer sources

## ACTIVE INGREDIENTS

NBPT (N-(n-butyl)-thiophosphoric triamide)  
Solution (CAS No. 94317-64-3) .....20.0%

## Inactive Ingredients

Propylene Glycol, 1-methyl-2-pyrrolidone and  
Copolymer Surfactant .....80.0%  
TOTAL .....100.0%

## DIRECTIONS FOR USE

### UREA BLENDING:

May be used to treat urea prior to application in the field, including pre-treatment. Under certain temperature and humidity conditions, urea blended with N-GEAR DUAL ACTION may stick together. Application of urea to the field is recommended soon after treatment for best results.

### UAN SOLUTIONS:

May be mixed with liquid fertilizers such as aqua ammonia or other liquid ammoniacal or urea nitrogen fertilizers. Liquid fertilizers containing high levels of phosphate should not be used with N-GEAR DUAL ACTION. If pesticides are added to the tank mix in conjunction with liquid fertilizers, a compatibility jar test should be performed prior to large scale application to the field.

### LIQUID MANURE:

May be mixed with liquid animal manures. N-GEAR DUAL ACTION may be applied to slurry pit or through an injection system as material is loaded into applicator.

## RECOMMENDED USE RATES

**Urea (46-0-0):** 2-3 quarts per ton of urea

**UAN Solutions (28-32%):** 1.5 quarts per ton of total solution

**Liquid Manure:** 13.5-18 oz per acre

## PRODUCT AVAILABILITY

Available in 2x2.5 gallon jugs (36 cases per pallet), 250-gallon totes or bulk.

**Density:** 8.9 lb/gal

**Specific Gravity:** 1.01 at 68°F (20°C)

**Storage:** Store above 32°F (0°C). Do not allow product to freeze.

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