

# THE MERISTEM CORN ACRE

BRINGING MERISTEM IN EVERY PASS TOGETHER ON THE CORN ACRE





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The Meristem corn acre is all about putting the right product sets together to maximize nutrient use efficiency, building strong healthy plants fast and optimizing genetic potential in-season. Once EXCAVATOR<sup>™</sup>, REVLINE<sup>™</sup> HOPPER THROTTLE<sup>™</sup> and other appropriate products are put to work in the planter pass, the focus becomes managing nitrogen, mitigating yield-robbing stresses and foliar nutrition.

# FARMERS GETTING INTRODUCED TO THE CONCEPT OF HIGHER-MANAGEMENT CROPPING SYSTEMS IN CORN.

When we help farmers begin to build an in-season crop input plan, the following discussion points are important.

When a corn plant determines yield

Identifying micronutrient deficiencies

Discussing when the best time is to apply nutrients and plant growth regulators/biostimulants for the best results

How post-herbicides and environmental conditions can cause stress

Understanding loss pathways for Nitrogen

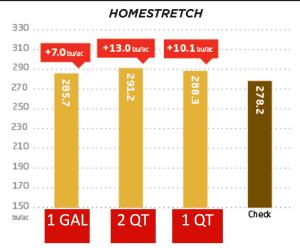




# THE MERISTEM CORN ACRE CORN ENTRY PROGRAM

Below is an **example** of potential program for farmers getting introduced to the concept of higher-management cropping systems in corn.

Pass/Timing	Product	Rate	SRP/ac*
Post-Herbicide Pass	HOMESTRETCH	1qt	\$7.92
Side-Dress Pass	N-GEAR DUAL ACTION	1.5qt/ton of total solution	\$3.20 (assuming 15gal/ac UAN applied)
	MAINTAIN ELITE	6oz/50 units of Nitrogen as Anhydrous Ammonia	\$5.44 (assuming 100lbs N)
Fungicide Pass	HOMESTRETCH NKB	1qt	\$9.15







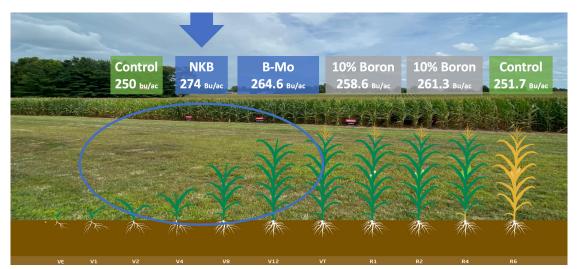


## THE MERISTEM CORN ACRE HIGH-YIELD CORN PROGRAM

### FARMERS DRIVING FOR HIGH YIELD SOYBEANS

In this scenario, the recommendation now includes a stress-mitigation product, HARVESHIELD<sup>™</sup>. The uniqe combination of amino acids and biostimulants in HARVESTSHIELD<sup>™</sup>, applied early-season, mitigates environmental stressors positively impacting the plant at a critical point when the corn is determing the size of the ear. Late-season, a PGR, INERTIA<sup>®,</sup> is added to the recommendation to reduce stress, maximize pollination and kernel retention, to increase test weights.

Pass/Timing	Product	Rate	SRP/ac*
Post-Herbicide Pass	HOMESTRETCH	1qt	\$7.92
	HARVESTSHIELD	1pt	\$9.50
Side-Dress Pass	N-GEAR DUAL ACTION	1.5qt/ton of total solution	\$3.20 (assuming 15gal/ac UAN applied)
	MAINTAIN ELITE	6oz/50 units of Nitrogen as Anhydrous Ammonia	\$5.44 (assuming 100lbs N)
Fungicide Pass	HOMESTRETCH NKB	1qt	\$9.15
	INERTIA	12.8oz	\$8.00







# THE MERISTEM CORN ACRE BRINGING MERISTEM IN EVERY PASS TOGETHER ON THE CORN ACRE







## Put Plants on the Fast Track to Higher Yields

Farmers that drive for yield know that season-long plant health is critical to maximizing genetic potential. Foliar-feeding is one of the most efficient ways to supply nutrition to crops during critical growth stages. HOMESTRETCH<sup>™</sup> by Meristem<sup>™</sup> Crop Performance is a foliar applied formulation of 4-0-0 with a micronutrient package. It is ideal for in-season nutrient applications on row crops and can be used as a tank mix partner.

HOMESTRETCH

### **PRODUCT BENEFITS**

- High quality and mobile form of readily available nutrients for plants
- Low use rates
- Low salt index and low impurities
- Reduced stress through improved plant health
- Drives higher yields
- At a value that just makes sense

### **APPLICATION RECOMMENDATIONS**

### FOLIAR APPLICATION

Ground: Apply 1-2 quarts in a minimum of 10 gallons of water per acre and repeat as needed.

Aerial: Apply 1-2 pints in a minimum of 5 gallons of water per acre and repeat as needed.

### SOIL APPLICATION

Use 1-3 quarts in a minimum of 10 gallons of water per acre. Not for use with starter fertilizer.

### HOMESTRETCH<sup>™</sup> ACTIVE INGREDIENTS

Guaranteed Analysis	4-0-0
Total Nitrogen (N)	4.00%
Sulfur (S)	3.00%
Boron (B)	0.25%
Manganese (Mn)	3.00%
Zinc (Zn)	3.00%

### AGRONOMIC BENEFITS

Sulfur: aids in protein and enzyme synthesis.

**Boron:** essential to new growth, pollination and reproduction. Stabilizes cell walls, which provides plant structure and integrity. Also aids in nitrogen assimilation and root nodulation formation, which enhances nitrogen uptake and utilization.

**Manganese:** aids in herbicide metabolism, chlorophyll formation and plant respiration. It is also critical to photosynthesis.

**Zinc:** promotes root and shoot growth; helps plants withstand environmental stress.

### PRODUCT AVAILABILITY

Products are available in both 2.5 gallon jugs and 250 gallon totes.

Please visit MeristemAg.com for more information.

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MERISTEM crop performance 1-833-637-4783 (MERISTEM)



# - Protect and Enhance Genetic Potential

HOMESTRETCH<sup>™</sup> HARVESTSHIELD by Meristem Crop Performance<sup>™</sup> is a stress-mitigating biostimulant and nutritional designed to reduce plant stress and improve yield in tough conditions.

Stay protected in times of stress due to extreme temperature, drought or water stress with HARVESTSHIELD's special formuation of botanical extracts rich in natural auxins, vegetal amino acids, tryptophan, arginine and high performance surfactants all brought together to improve performance during difficult growing conditions.

### PLANT EXTRACTS

Each plant extract contained in HARVESTSHIELD<sup>™</sup> has components vital to stress mitigation or cell division. Polyphenols protect the plant from oxidation caused by environmental stresses or stresses on the plant during rapid growth stages. Auxins are known to stimulate cell division. Additionally, betaines keep water content stable in plant cells.

### ARGININE

Arginine is an amino acid building block for polyamines. Polyamine production increases during times of environmental stress including drought, heat and high salinity levels in soil.

## TRYPTOPHAN

The amino acid building block for Indole-3-acetic acid (IAA). Tryptophan assists plants in cell expansion and cell division.

### 5-8-4 GUARANTEED ANALYSIS

Total nitrogen (N) ...... 5.00% 0.60% Organic Nitrogen (N) 1.00% Nitric Nitrogen (N) 1.7% Ammoniacal Nitrogen (N) 1.7% Ureic Nitrogen (N)

Available phosphate (P205)	.8.50%
Soluble Potash (K20)	4.00%
Organic Carbon* (C) *of biological origin	3.00%

## DIRECTIONS FOR USE

*Corn:* Apply at V5.

Soybeans:

Apply at RI. Recommended right as beans are flowering, in conjunction with REVLINE™ and HOMESTRETCH™.

### **RECOMMENDED USE RATE**

Apply 1 pint per acre with a minimum 10 gallons of water.

### **PRODUCT AVAILABILITY**

- 2.64 gallon containers
- 250 gallon totes

Please visit MeristemAg.com for more information.

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

N-GEAR<sup>™</sup> DUAL ACTION by Meristem Crop Performance<sup>™</sup> gives you flexibility of both above and below ground nitrogen protection. N-GEAR<sup>™</sup> DUAL ACTION is specifically formulated for use in urea and UAN scenarios.

## **PRODUCT BENEFITS**

- DUAL ACTION PROTECTION
  - Up to three weeks of above-ground protection from volitization
  - Reduces nitrogen loss below ground
- MICRO-CHAIN Technology

### OLD POLYMER

### IER MICRO-CHAIN TECHNOLOGY





- 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

N-GEAR<sup>™</sup> DUAL ACTION is intended to be used as a management tool to improve nitrogen availability and uptake as an addititve to a regular fertilizer program. N-GEAR<sup>™</sup> DUAL ACTION is not intended to provide the nutrients normally required by agricultural crops.

## PRODUCT AVAILABILITY

N-GEAR™ is available in 2x2.5 gal packaging, 250 gal totes and bulk tankers.

## INGREDIENTS

Propylene Glycol, 1-methyl-2-pyrrolidone and	
copolymer surfactant 80.0%	ś
Total 100.0%	6
ALSO CONTAINS NON PLANT FOOD INGREDIENTS: Carboxylic and Organic Acids	

### **RECOMMENDED USE RATE** & APPLICATION INSTRUCTIONS SUGGESTED 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

### DIRECTIONS FOR USE

**Urea Blending**: N-GEAR<sup>™</sup> DUAL ACTION 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<sup>™</sup> DUAL ACTION may stick together. Application of urea to the field is recommended soon after treatment for best results.

**UAN Solutions**: N-GEAR<sup>™</sup> DUAL ACTION 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<sup>™</sup> DUAL ACTION. Is pesticides are added to the tank mix in conjunction with liquid fertilizers, a compatability jar test should be performed prior to large scale application to the field.

**Liquid Manure**: N-GEAR<sup>™</sup> DUAL ACTION may be mixed with liquid animal manures. N-GEAR<sup>™</sup> DUAL ACTION may be applied to slurry pit or through an injection system as material is loaded into applicator.

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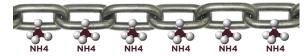


# /// IMPROVED FORMULATION /// MORE CALCIUM /// ORGANIC ACIDS /// ENHANCED POLYMER TECHNOLOGY

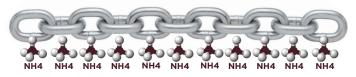
Farmers that drive for consistent profits know that season-long availability of nitrogen is critical to maximizing corn yields. MaintaiN ELITE by Meristem<sup>™</sup> Crop Performance utilizes an **improved formulation** to extend nitrogen availability and uptake in addition to reducing nitrogen loss. 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.

Meristem's **MICRO-CHAIN technology** captures and maintains more nitrogen in the upper root-zone, increasing nitrogen uptake and utilization.

### **OLD POLYMER**



**MICRO-CHAIN TECHNOLOGY** 



## ACTIVE INGREDIENTS

Calcium	10.0%
Polyoxethylene Glycol, Co-Polymer	. 28.0%
Other Proprietary Ingredients	. 62.0%
Total	100.0%

ALSO CONTAINS NON PLANT FOOD INGREDIENTS: Carboxylic and Organic Acids

## **PRODUCT BENEFITS**

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

## APPLICATION INSTRUCTIONS & USE RATES

#### ANHYDROUS AMMONIA:

Use 6 oz. of MaintaiN Elite per 50 units of Nitrogen

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

### LIQUID FERTILIZER:

Use 2 quarts of MaintaiN Elite per ton of UAN (28%, 30%, 32%) \*See dealer for specic recommendations Liquid fertilizers containing high levels of phosphate should not be used with MaintaiN Elite. 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 field.

### LIQUID MANURE:

Use 24-32 oz. of MaintaiN Elite per acre.

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## Put Plants on the Fast Track to Higher Yields

Farmers that drive for yield know that season-long plant health is critical to maximizing genetic potential. Foliar feeding is one of the most efficient ways to supply nutrition to crops during critical growth stages. HOMESTRETCH<sup>™</sup> KB by Meristem Crop Performance<sup>™</sup> is a 2-0-16 formulation with a boost of boron. It is ideal for in-season nutrient applications on row crops and is an *excellent* tank mix partner.

HOMESTRETCH<sup>™</sup>KB is approved for use with XtendiMax<sup>\*</sup>, Engenia<sup>\*</sup>, FeXapan<sup>™</sup>, Enlist Duo<sup>®</sup> and Enlist One<sup>®</sup>.

For info, visit:

- XtendiMaxApplicationRequirements.com
- EngeniaTankMix.com

HOMA

- FeXapanApplicationRequirements.dupont.com
- Enlist.com/en/herbicides/approved-tank-mix.html

### **PRODUCT BENEFITS**

- Ultimate tank mix formulation compatibility
- Maximum nutrient mobility and efficiency, allowing for a lower application rate per acre
- Low salt index and low impurities
- Contains a proprietary, high efficiency form of boron
- Healthier plants, stress mitigation, enhanced quality and yield
- At a value that just makes sense

### HOMESTRETCH™ KB ACTIVE INGREDIENTS

Guaranteed Analysis	2-0-16
Nitrogen(N)	2.00%
2.0% Urea Nitrogen	
Soluble Potash (K <sub>2</sub> O)	16.00%
Boron (B)	. 2.50%
Molybdenum (Mo)	. 0.20%

## AGRONOMIC BENEFITS

**Boron:** essential to new growth, pollination and reproduction. Stabilizes cell walls, which provides plant structure and integrity. Also aids in nitrogen assimilation and root nodulation formation, which enhances nitrogen uptake and utilization.

**Potassium:** assists with drought tolerance, nodulation, lodging resistance and defense against insects and diseases. Critical to high yields.

### APPLICATION RECOMMENDATIONS

Apply 1-2 quarts per acre per application throughout the growing season. More frequent applications at 1 pint per acre may be needed to correct deficiencies once they occur.

### PRODUCT AVAILABILITY

Products are available in both 2.5 gallon jugs and 250 gallon totes.

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### PGR Biostimulant-Liquid

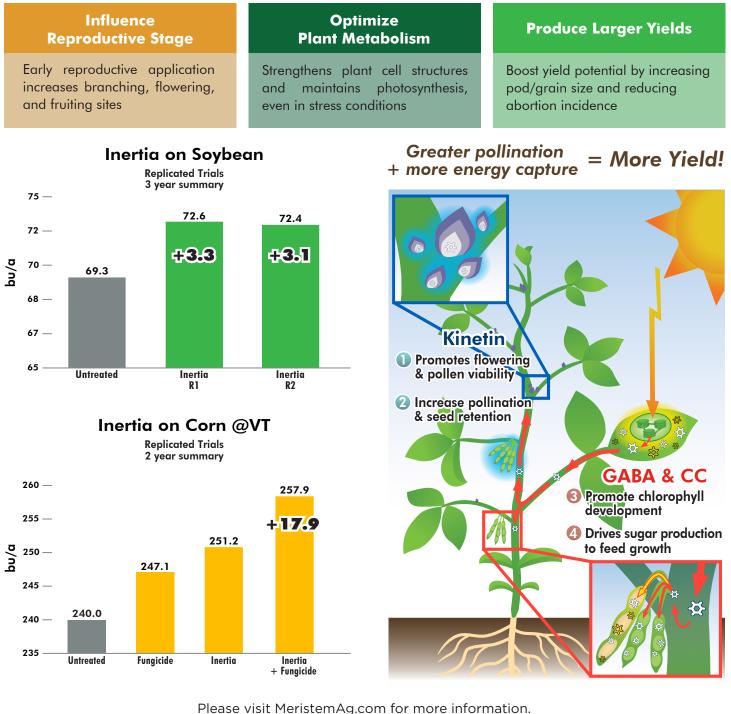
- Kinetin (.12%)
- · GABA (.98%)
- · Choline Chloride (1.95%)

### LATE SEASON PLANT GROWTH REGULATOR



### Timing: Early reproductive · Rate: 12.8 oz/acre

**Inertia** is a fortified cytokinin designed to increase pollination and support photosynthesis during fruit or grain fill. The unique combination produces more flowering/fruiting sites, and more importantly increases the plant's net capture of solar energy to help drive sugar production.



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### 8-0-0-17S

HOMESTRETCH SULFUR 17 is specifically formulated for foliar delivery of sulfur. Sulfur is important for chlorophyl formation, nodulation, enzyme activation, and S-containing amino acids.

### **PRODUCT BENEFITS**

- Ultimate tank mix formulation compatibility
- Maximum nutrient mobility and efficiency, allowing for a lower application rate per acre
- Low salt index and low impurities

## **APPLICATION RECOMMENDATIONS**

### Foliar:

Apply 1/2-4 quarts per acre per application throughout the growing season. More frequent applications at 1-2 pints per acre may be needed to correct deficiencies once they occur.

### Soil Applications:

Field and Row Crops: 2–4 quarts per acre banded either as a stand alone or in combination with liquid NPK starter fertilizers at planting or as a side-dress during the season.

### HOMESTRETCH™ SULFUR 17 ACTIVE INGREDIENTS

### **Guaranteed Analysis**

Nitrogen(N)8.00%
0.14% Urea Nitrogen
7.86% Ammonical Nitrogen
Sulfur (S) 17.00%

Derived from urea and ammonium thiosulfate.

## AGRONOMIC BENEFITS

- Essential for chlorophyl production
- Aids in protein and enzyme synthesis
- Enhances nitrogen use efficiency

### PRODUCT AVAILABILITY

Products are available in both 2.5 gallon jugs and 250 gallon totes.

Please visit MeristemAg.com for more information.

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