As a company, our goal is to provide products that reduce plant stress and increase yields for farmers. For almost twenty years, we have been evaluating new products that are capable of increasing yields and improving plant health. We also discovered that frequently, the largest yield increases that were obtained were from balancing the fertility within the plant. We knew that we had products that would help farmers solve production problems and we had to correct their problems in a cost effective manner. As a result we began testing the grain harvested from under-performing fields. We evaluated the balance of nutrients within the grain samples and then recommended products that would correct the yield limiting nutrient shortages confirmed by the grain testing. This is the best way we have found to economically improve yields.

All materials marketed through Agra Solutions must be highly effective, safe, environmentally friendly and non-toxic. We know that a healthy crop will have the highest yields, and, our goal is to remove as much plant stress as is economically feasible.
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Agra-Rouse™ is a mix of plant hormones and bio-stimulants known to enhance plant yields, promote cell division and encourage root development and propagation. They work with the plant’s own natural physiology to stimulate growth, increase vigor and improve overall plant health.

Benefits of Agra-Rouse
- Faster seed germination
- Deeper roots
- Larger leaves and fruit
- Plants more tolerant of heat, cold and drought
- Plants less susceptible to disease
- Higher yields

Application Instructions
Field Crops, Fruits, Tree Nuts, Vegetables, Herbs & Spices: 4 - 8 ounces per acre
Seed Treatment: 1 - 4 ounces per 100 pounds of seed
Transplant and Rooting Solutions: 1 - 2 ounces per 5 gallons of solution

Agra-Rouse is blended with three hormones:

**Cytokinins**
- Promote cell division, shoot initiation, and bud formation
- Stimulate chlorophyll synthesis and leaf expansion from cell enlargement
- Combine with other plant hormones like auxins to regulate metabolic activities
- Aid in seed germination

**Gibberellins**
- Carry out or help cell division and stem elongation
- Help regulate biosynthesis
- Help in breaking the dormancy of seed
- Delay aging and death of leaves and fruits
- Promote seed germination and cause rapid seedling growth
- Cause stem elongation in plants

**Indole-3-Butyric Acid (IBA)- Auxin**
- Used to initiate growth in roots and stems
- Propagating and rooting hormone for fruit graftings and cuttings
- Regulate apical dominance
- Promote root development and upward growth
- Stimulate cell elongation in roots and stems
Argosy™ RF is a water soluble, environmentally safe polymer matrix composed of inert ingredients. It encapsulates pesticides keeping them on the leaf even through rain events and irrigation. When tank mixed, Argosy RF enhances wetting and adhesion, as well as facilitates uniform foliar distribution of the pesticide.

**Benefits of Argosy RF Applications**

**STICKER**
When sprayed on the leaf surface, Argosy RF enhances the adhesion of spray droplets to the leaf. Argosy RF also keeps the pesticide on the leaf surface even when irrigation or rainfall occurs, extending the life of chemical applications.

**SPREADER**
When combined with a pesticide, Argosy RF encourages uniform coverage of the product across the leaf allowing the active ingredient to be better absorbed by the plant.

**ELASTICITY**
The revolutionary elastic nature of Argosy RF allows the material to stretch as the plant leaf grows, keeping the application of the pesticide on the plant longer. This means fewer applications and longer efficacy.

**DROUGHT TOLERANCE**
Argosy RF is a retention agent. It has the ability to bind with water, keeping moisture on a targeted substrate longer.

Application Instructions

Apply as a 0.125 – 1.3 % solution (1 pint to 1 gallon per 100 gallons of solution)

See product label for complete directions for use.

Evaluation of chemical compatibility is the sole responsibility of the user.

In field testing, Argosy RF was used along with a label rate of glyphosate. For small weeds that are 1 to 4 inches tall, use 4 to 8 ounces of Argosy RF per acre with the herbicide. For weeds over 4 inches tall use rates of up to 32 ounces of Argosy per acre may be required along with a labeled rate of the herbicide. The Argosy RF holds the herbicide on the leaf for an extended period of time and the result is stunted marestail plants that never fully mature and will usually not go to seed. This works equally well if Prudent Presto is also applied with the Argosy RF & glyphosate or Argosy RF & glufosinate. Argosy RF will also extend the life of other foliar applied products like other herbicides & insecticides.
Incite™ is a mix of plant hormones and bio-stimulants known to enhance plant yields, promote cell division and encourage root development and propagation. They work with the plant’s own natural physiology to stimulate growth, increase vigor and improve overall plant health.

Benefits of Incite

- Faster seed germination
- Deeper roots
- Larger leaves and fruit
- Plants more tolerant of heat, cold and drought
- Plants less susceptible to disease
- Higher yields

Application Instructions

Field Crops, Fruits, Tree Nuts, Vegetables, Herbs & Spices: 4 - 8 ounces per acre

Seed Treatment: 1 - 4 ounces per 100 pounds of seed

Transplant and Rooting Solutions: 1 - 2 ounces per 5 gallons of solution

Incite is blended with three hormones:

Cytokinins
- Promote cell division, shoot initiation, and bud formation
- Stimulate chlorophyll synthesis and leaf expansion from cell enlargement
- Combine with other plant hormones like auxins to regulate metabolic activities
- Aid in seed germination

Gibberellins
- Carry out or help cell division and stem elongation
- Help regulate biosynthesis
- Help in breaking the dormancy of seed
- Delay aging and death of leaves and fruits
- Promote seed germination and cause rapid seedling growth
- Cause stem elongation in plants

Indole-3-Butyric Acid (IBA)- Auxin
- Used to initiate growth in roots and stems
- Propagating and rooting hormone for fruit graftings and cuttings
- Regulate apical dominance
- Promote root development and upward growth
- Stimulate cell elongation in roots and stems
KaPre® AG is formulated specifically to enhance nutrient uptake while nourishing dense populations of native beneficial microbes. KaPre® AG also delivers flourishing populations of powerful microorganisms.

Benefits of KaPre AG

CONTAINS A CONSORTIUM OF BENEFICIAL SOIL MICROORGANISMS

- *Bacillus amyloliquefaciens* - broad spectrum of enzyme activity
- *Bacillus megaterium* - enhances organic matter decomposition
- *Bacillus licheniformis* - produces extracellular enzymes associated with the cycling of nutrients in the soil ecosystem
- *Bacillus subtilis* - metabolizes phosphate, nitrates and other plant nutrients into more bio-available forms
- *Glomus intraradices* - mycorrhizae that act as extensions of the root surface to enhance water and nutrient uptake

IMPROVES FERTILIZER USE EFFICIENCY

- Acts as a fertilizer catalyst aiding in the breakdown of complex molecules into simpler forms for easier plant uptake

IMPROVES SOIL CONDITIONS

- Higher Cation Exchange Capacity (C.E.C.)
- Better porosity
- Improved water holding capacity

Application Instructions

- **In-Furrow and Foliar Applications:** Apply 6 – 16 ounces at planting and every 2 – 4 weeks during the growing season.

- **Seed Treatment Application Instructions:** Use 1 - 4 ounces per 100 pounds of seed. KaPre® AG can be applied as is or can be diluted in solution.

- **Fertilizer Additive Application Instructions:** Mix with other fertilizer components (5 – 50% solution) so that the final fertilizer solution delivers KaPre® AG at 6 – 16 oz. per acre.
KaPre® Embella promotes beneficial microbial activity. It feeds the microbes that enhance the breakdown of nutrients to make them more available to the plant. KaPre® Embella increases the water holding capacity of the soil, which decreases watering requirements. KaPre® Embella grabs moisture, along with some negatively charged nutrients, and attaches them to soil particles. This allows for slower release and helps prevent groundwater and downstream contamination.

Benefits of KaPre Embella

**Applications to the Soil**

- Provides nutrition for native microbial populations
- Soil microbial populations are the driving force of any ecosystem
- Improves soil conditions and nutrient availability by unlocking nutrients that may be tied-up in the soil
- Encapsulates nutrients and keeps them in the root zone for plant uptake
- Improves the water holding capacity of the soil
- Reduces leaching
- Nutrients stay in the root zone where plants can use them and out of ground water, aquifers and other waterways.
- Improves soil aeration

**Applications to the Plant**

- Improves nutrient uptake
- Strengthens cell walls
- Increases root depth and mass
- Enhances drought, disease and stress tolerance
- Supports plant’s immune response

**Application Instructions**

**Alfalfa:** Soil-apply 8-12 oz. per acre at or near dormancy break, and, foliar-apply 4-8 oz. per acre 7-10 days after each cutting.

**Cane & Vine Crops:** Soil-apply 16 oz. per acre in early spring or in autumn.

**Small Grains:** Soil apply 16 oz. per acre at planting or near dormancy-break and foliar-apply 8-16 oz. per acre, as needed.

**Nut Crops:** Soil-apply 16 oz. per acre in early spring or post-harvest.

**DO NOT EXCEED 8 OZ. PER ACRE WHEN APPLYING WITH SELECTIVE HERBICIDES.**
KaPre® ExAlt is a safe and effective tool for soil and water maintenance and remediation. It also unlocks soil-bound micronutrients, while flushing sodium from the root zone.

Benefits of KaPre ExAlt

• Improve soil drainage
• Stimulate deeper root systems
• Reduce crusting and penetrate hard pan
• Reduce soil compaction
• Increase soil aggregation
• Stimulate plant growth and viability
• Improve efficiency of fertilizers and other chemicals
• Improve soil aeration

Application Instructions

Application Rate

• Apply KaPre® ExAlt at a rate of 12 fluid oz. per acre every two weeks or 2 pints (32 fluid oz.) once a month throughout the growing season.

Do Not Mix With Selective Herbicides

IMPROVES THE AVAILABILITY OF SOIL-BOUND NUTRIENTS

• Solubilizes and releases soil-bound calcium, magnesium, iron, manganese, phosphorus and other beneficial ions.
• These nutrients bind with KaPre® ExAlt molecules, where they are immediately bio-available to microbes and plants by ion exchange.

CORRECTS HIGH SODIUM AND COMPACTED SOILS

• KaPre® ExAlt flushes sodium from the root zone without indiscriminately stripping the soil of micronutrients.
• As natural ion exchange is improved, a balance of ions is achieved. This allows ions that are in over abundance, such as sodium, to be flushed from the root zone.

DETOXIFICATION OF SOIL POLLUTANTS

• KaPre® ExAlt is vital in helping form new species of ions and catalyzing the breakdown of toxic pollutants.
Application Instructions

KaPre® PhoNix can be applied as a foliar or soil application to all crops.

Applications should be made prior to a “stressful event” or at planting (if applicable) and then every 10 to 14 days throughout the growing season, as needed.

KaPre® PhoNix should be diluted at a ratio of 400 parts spray solution to 1 part KaPre® PhoNix. See table below for application rates for different volumes of spray solution.

Fertilizer Additive Instructions:
Mix with other fertilizer components so that the final fertilizer solution delivers KaPre® PhoNix at the rates per volume of fertilizer solution listed in chart.

### Ounces of KaPre® PhoNix per Volume of Spray Tank Solution

<table>
<thead>
<tr>
<th>Gallons of Solution per Acre</th>
<th>Ounces of KaPre® PhoNix</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4</td>
<td>0.75 - 1.5</td>
</tr>
<tr>
<td>5</td>
<td>1 - 2</td>
</tr>
<tr>
<td>10</td>
<td>2 - 4</td>
</tr>
<tr>
<td>25</td>
<td>6 - 8</td>
</tr>
<tr>
<td>50</td>
<td>16</td>
</tr>
</tbody>
</table>

DID YOU KNOW?

The benefits of plant turgidity or "turgor" (the distention of the plant cell wall and membranes by increased cellular fluid content) is increased with the synthesis of sugar. High levels of turgor pressure distend guard cells and increase the stomatal opening allowing improved assimilation of carbon dioxide.
KaPre® Spectra improves the foliar uptake of nutrients and micronutrients and can improve fertilizer performance when added to starter or foliar fertilizer applications.

Benefits of KaPre Spectra

Increases nutrient absorption

- KaPre® Spectra makes vitamins and elemental minerals more absorbable by complexing them into organic, ionic forms that are easily transported through cell membranes.

Improves fertilizer efficiency

- KaPre® Spectra plays a role in helping transport nutrients into plant foliage and roots. The low molecular weight formulation improves mobility through cell walls to plant growth points.

Application Instructions

• KaPre® Spectra may be blended with any compatible fertilizers and foliar sprays applied to all row crops, field crops, forage crops, feed crops, vegetable crops, trees, nut trees, vines.
• KaPre® Spectra can be foliar-applied at up to 12 ounces per acre per application.
• Apply at least 2 oz. per acre in all foliar applications.
• Dilute KaPre® Spectra in at least 20 gallons of water.

Applications with Herbicides:

• KaPre® Spectra may be applied at rates of 2 - 12 ounces per acre with non-selective herbicides.
• KaPre® Spectra may increase the absorption and efficacy of herbicides. KaPre® Spectra is NOT recommended for use with pre-emergence herbicides.
• KaPre® Spectra is NOT recommended for use with selective herbicides.
Krystal Klear® micronutrient solutions are produced using a patented “dual-chelation” system for optimal performance. Krystal Klear® micronutrient solutions have excellent tank-mix compatibilities, provide quick uptake of micronutrients, and deliver a sustained response.

### Chelated Micronutrient for Agriculture

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Krystal Klear® Agra Mix</strong></td>
<td>Chelated 2% Cu, 2% Mn, 2% Zn and 0.5% B solution</td>
<td></td>
</tr>
<tr>
<td><strong>Krystal Klear® Agra Mix II</strong></td>
<td>Chelated 2% B, 2% Mn, 2% Zn and 0.5% Cu solution</td>
<td><strong>Field Crops:</strong> Apply 1 quart per acre when plants are young. This is the time when the most severe deficiencies occur.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Agra Mix III</strong></td>
<td>Chelated 2% B, 2% Mn, 2% Zn, 0.5% Cu and 0.25% Fe solution</td>
<td><strong>Vegetables:</strong> Apply 1/2 to 1 quart per acre each spray. Krystal Klear Mixes can be incorporated into the normal spray program.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Crop Mix</strong></td>
<td>Chelated 4% Zn, 1% Mn, 0.5% Cu and 0.1% B solution</td>
<td><strong>Tree &amp; Vine Crops:</strong> Apply 1 quart per 125 gallons of spray mixture. If concentrated spray is used, increase the concentration in direct proportion to the dilution.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Crop Mix II</strong></td>
<td>Chelated 4% Zn, 1% Mn, 0.5% Cu, 0.25% Fe and 0.1% B solution</td>
<td></td>
</tr>
<tr>
<td><strong>Krystal Klear® B</strong></td>
<td>5% complexed boron solution</td>
<td>Complexed boron for quick corrections of boron deficiency. Boron is essential for optimal root and tissue levels.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Ca</strong></td>
<td>3% chelated calcium solution</td>
<td>Chelated calcium for quick corrections of calcium deficiency. Calcium is essential for cell wall development and root growth.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Cu</strong></td>
<td>5% chelated copper solution</td>
<td>Quickly corrects copper deficiencies. Copper is essential for crop growth and the activation of many enzymes.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Fe</strong></td>
<td>4% chelated iron solution</td>
<td>Quickly corrects iron deficiencies</td>
</tr>
<tr>
<td><strong>Krystal Klear® Mg</strong></td>
<td>3% chelated magnesium solution</td>
<td>Magnesium is essential for photosynthesis in plants and prevents yellowing of leaves.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Mn</strong></td>
<td>5% chelated manganese solution</td>
<td>Quickly corrects manganese deficiencies. Manganese activates enzymes required for amino acid production.</td>
</tr>
<tr>
<td><strong>Krystal Klear® Zn</strong></td>
<td>9% chelated zinc solution</td>
<td>Quickly corrects zinc deficiencies. Zinc controls the synthesis of indoleacetic acid, which regulates plant growth.</td>
</tr>
</tbody>
</table>
LidoQuest® liquid fertilizers are formulated with premium sources of nutrients and patented micronutrients. LidoQuest® fertilizers are ideal for soil or foliar spray applications.

<table>
<thead>
<tr>
<th>LidoQuest® Agricultural Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LidoQuest® Mn</strong></td>
</tr>
<tr>
<td><strong>LidoQuest® Zn</strong></td>
</tr>
</tbody>
</table>

If You Have a Soil or Leaf Analysis Recommendation
Apply LidoQuest® Manganese at the Following Rates

<table>
<thead>
<tr>
<th>Elemental Mn required* (lbs./acre)</th>
<th>Quarts of LidoQuest® Mn</th>
<th>Pounds of LidoQuest® Mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.75</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1.50</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>3.00</td>
<td>8</td>
</tr>
</tbody>
</table>

If You Have a Soil or Leaf Analysis Recommendation
Apply LidoQuest® Zinc at the Following Rates

<table>
<thead>
<tr>
<th>Elemental Zn required* (lbs./acre)</th>
<th>Quarts of LidoQuest® Zn</th>
<th>Pounds of LidoQuest® Zn</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.36</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0.72</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>1.08</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>1.44</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>1.80</td>
<td>5</td>
</tr>
</tbody>
</table>

Application Instructions

Soil Applications:
LidoQuest® products are recommended for use on all types of soils. Dilute before use to ensure uniform coverage. The product can be incorporated into liquid fertilizers or applied separately. Soil applications may be made by drip, sprinkler or band application. If you do not have a soil or leaf analysis then apply the following rates:
- Maintenance Application - 1 quart per acre
- Moderate Deficiency - 2 to 3 quarts per acre
- Heavy Micronutrient Deficiency - 4 quarts per acre
**Benefits of Prudent 42cw**

- Improve plant strength and ability to tolerate unfavorable environmental conditions
- Increase integrity of plant cell walls, improving plant strength and resistance
- Improve ability to absorb water and nutrients
- Stimulate key pathways in the plant, which produce compounds responsible for defending the plant against environmental stress
- Keep un-chelated metals stable in solution
- Reduce scale build-up in spray tanks and other equipment

**Prudent products are unique**

- Contain one of the highest percentages of $\text{PO}_3$ of any phosphite fertilizer.
- Formulated with very little water allowing the $\text{PO}_3$ to remain stable in the jug; won’t convert to $\text{PO}_4$ the way potassium phosphites can.
- Can be used at much lower rates per acre than most phosphite fertilizers, making them more economical and effective.
- Contain a surfactant for improved spreading and nutrient uptake.
- Can be used in combination with Nutrol® EPA registered fungicide for effective control of soil borne and foliar diseases.

**Application Instructions**

**Foliar Applications (See product label for specific crop instructions):**

Prudent® 42CW may be applied with all types of ground spraying equipment or by air. DO NOT exceed a maximum product rate of 1 ounce of product per gallon of water in the spray tank.

**DID YOU KNOW?**

Urea phosphite is a eutectic because it contains two solids - urea and phosphorus acid - that form a liquid eutectic composition. This allows for a high concentration of phosphorus acid to be solubilized without the addition of water.
Nutrol®, a true tank buffer, can acidify and maintain the pH of tank solutions as well as prevent the breakdown of other chemicals through alkaline hydrolysis. Nutrol is also a biopesticide effective against powdery mildew and a highly concentrated water soluble fertilizer.

Nutrol® is a multi-use product that is typical of Performance Nutrition® technologies. Nutrol® is a bio-pesticide against foliar and soil-borne diseases, a tank buffer and a PK fertilizer.

- Nutrol is labeled for use to control and eradicate powdery mildew and other soil-borne and foliar diseases.
- Nutrol prevents the formation of resistant strains of powdery mildew when used in alternation with other labeled fungicides.
- Nutrol ensures optimal performance by preventing alkaline hydrolysis, which is the breakdown of pesticides by alkaline pH.
- Nutrol is a true buffer and can maintain the pH of tank solutions (The pH of a 1% aqueous solution of Nutrol® is 4.5 +/- 0.3).
- Nutrol is a highly concentrated, water-soluble fertilizer containing over 50% P₂O₅ and 32% K₂O.
- Nutrol is safe to use, has the lowest salt index of any fertilizer and will not cause phytotoxicity even at high concentrations.
- Nutrol is suitable for foliar, soil and drip irrigation applications.

**Application Instructions**

**Nutritional Applications**
Apply Nutrol as a readily available source of P & K (See Label for Rates)

**Tank Buffer Applications**
A 1% solution of Nutrol will help buffer tank solutions and prevent alkaline hydrolysis

**Disease Control Applications**
Apply Nutrol to control Powdery Mildew and other soil and foliar diseases.

**DID YOU KNOW?**
Nutrol is an excellent tank buffer that will acidify and buffer distilled water to a pH range of 4.5 – 5.5. Many pesticides can start to lose their efficacy immediately if they are mixed with alkaline solutions. By adding Nutrol to the tank, you can buffer the tank solution and ensure that pesticide applications are effective and are delivered to the target pest at the manufacturer’s desired activity.

This means fewer re-sprays, more consistent performance, and reduced chemical usage and labor costs.
NutriSmart®-B is a patented, environmentally friendly granular eco-fertilizer and humate soil amendment that fixes nitrogen from the atmosphere, solubilizes phosphate and unlocks potassium from the soil.

How does NutriSmart-B work?

- NutriSmart®-B elicits higher populations of native N-fixing microbes.
- The specifically selected microbes contained in each NutriSmart®-B granule form a symbiotic community of mutually interdependent nutrient-releasing yeasts.
- When the yeast is signaled by the plant that it requires nutrients, NutriSmart®-B initiates the conversion and delivery process.

NutriSmart-B supplies nutrients by:

- Nitrogen fixation – microbial conversion of nitrogen into available form.
- NutriSmart®-B yeast has shown higher N-fixing ability than common free-living N-fixing microbes.
- Microbial solubilization of phosphate into soluble forms of phosphorus.
- Unlocking potassium in the soil into exchangeable potassium.
- Solubilizing silicon and trace minerals for better plant uptake.

Soil and Environmental Benefits

- Improves the Nutrient Use Efficiency (NUE) of chemical fertilizers can effectively replace 20-50% of soil applied fertilizer.
- Improves soil fertility.
- Reduces the leaching of chemical fertilizers.
- Increases soil organic matter.
- Improves the soil environment for beneficial microbes.

Plant Benefits

- Provides consistent, uniform slow-release of nitrogen.
- Eliminates growth surges - nitrogen is released gradually throughout the plant’s growth cycle, which results in precise feeding that lasts up to 5 months.
- Improves plant growth, quality and yield – International and U.S. trials have demonstrated equivalent or better performance with NutriSmart®-B applications vs. conventional fertilizer programs.

Application Instructions

For use with conventional and high quality organic granular fertilizers:
- Replace 20 - 50% of soil applied granular NPK with an equal amount by weight of NutriSmart.
- Apply as normal and follow same application method and schedule as normal fertility program.

For use with manures:
Replace 20 - 50% of manure with the following recommended rates:
- Slow growing or low nutrient demand crops (rice, etc.) - 200 to 350 pounds per acre
- Fast growing or high nutrient demand crops (fruits, vegetables, trees, etc.) - 400 to 900 pounds per acre
- Apply as normal and follow same application method and schedule as normal fertility program.
HEAD START
PREMIUM FERTILIZER BLENDS

- Gentle and safe. Will not burn, even at high rates.
- Complete products. Convenient to use and saves time at planting.
- Designed to grow stress tolerant crops that will maximize yield potential.
- Nutrients are readily available to the crop.
- Cost effective way to deliver nutrients to the crop.

### Application Information

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Crop</th>
<th>Rate per Acre/Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Orthophosphate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-16-8</td>
<td>All Crops</td>
<td>3 to 4 gallons in furrow at planting and/or 1 to 4 gallons per acre foliar at the onset of stress</td>
</tr>
<tr>
<td>5-13-8</td>
<td>All Crops</td>
<td>Soybeans: 2 gallons in furrow at planting. All crops: 3 to 5 gallons foliar to enhance plant heath</td>
</tr>
</tbody>
</table>

80%/20% Ortho/Polyphosphate Timed Release 80% available immediately and 20% delayed availability

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Crop</th>
<th>Rate per Acre/Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-24-6</td>
<td>All Crops</td>
<td>3 to 5 gallons per acre in furrow at planting</td>
</tr>
<tr>
<td>8-22-5</td>
<td>All Crops</td>
<td>3 to 5 gallons per acre in furrow at planting</td>
</tr>
<tr>
<td>8-19-3</td>
<td>All Crops</td>
<td>3 to 5 gallons per acre in furrow at planting</td>
</tr>
</tbody>
</table>
Special Blends

**Prudent® Presto Gold Label**

was formulated specifically to meet the nutritional needs of corn at V3 and/or R1 stages and wheat at Feekes growth stage 4 and/or 9.

**Prudent® Presto Red Label**

was formulated specifically to meet the nutritional needs of alfalfa in early vegetative growth stages and soybeans at V3 and/or R1 stages.

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**Prudent® Presto Gold Label**

Formulated with KaPre® AG, KaPre® Embella, KaPre® Phonix, Prudent® 42 and Incite*. It is designed to greatly increase fall intactness of corn, stop purple leaves found in some hybrids and give the plant a balance of micronutrients. In replicated Agra Solutions studies, it has shown an increase of yields by 5+ bushels per acre.

**Foliar Applications:**

Prudent Presto GOLD Label is compatible with all herbicides. The patented technologies that make up Prudent Presto brand have been known to enhance the activity of many of the post emergence herbicides. When applying this product as a foliar material, it is best to spray early in the morning when there is still dew on the leaves. Applying the Prudent Presto brands at this point in the day when the plant’s stomata are open allows the material to easily enter the plant. Agra Solutionss testing has shown that if the foliar application is made in the afternoon when the temperature exceeds 80 degrees then the effectiveness of the product can be significantly reduced. Growers have also experienced better plant health when Prudent Presto Gold Label is used in a foliar application.

**In Furrow:**

Prudent Presto GOLD Label can also be applied in furrow or 2 x 2 with the starter fertilizer. When using with starter fertilizers, the best results have been achieved with either a 2 quarts or 4 quarts per acre rate. Adding a quart of liquid sugar to the fertilizer with the Prudent Presto has provided an additional yield increase.

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**Benefits of Prudent® Presto**

- Improved plant growth
- Improved root development
- Improved budding and flowering
- Increased integrity of plant cell walls
- Improved plant strength and resistance
- Enhanced crop quality
- Improved crop yields
Prudent® Presto Red Label

Formulated with KaPre® AG, KaPre® Embella, KaPre® Phonix, Prudent® 42 and Incite*. Agra Solutions studies have shown that applications have resulted in more branches on the plant, enlarged leaves, reduced glyphosate yellow flash and increased yield by 4+ bushels per acre.

Foliar Applications:

Prudent Presto RED Label is compatible with many herbicides. The patented technologies that make up the Prudent Presto brands have been known to enhance the activity of the post emergence herbicides. When applying this product as a foliar material it is best to spray early in the morning when there is still dew on the leaves. Applying the Prudent Presto brands at this point in the day when the plant’s stomata are open allows the material to easily enter the plant. Agra Solutions testing has shown that if the foliar application is made in the afternoon when the temperature exceeds 80 degrees then the effectiveness of the product can be significantly reduced. Growers have also experienced better plant health when Prudent Presto RED Label is applied prior to the onset of flowering.

Time of Day Study
Prudent Presto on Soybeans

<table>
<thead>
<tr>
<th>Time of Day</th>
<th>Soybeans 54</th>
<th>Soybeans 56</th>
<th>Soybeans 58</th>
<th>Soybeans 60</th>
<th>Soybeans 62</th>
<th>Soybeans 64</th>
<th>Soybeans 66</th>
<th>Soybeans 68</th>
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</thead>
<tbody>
<tr>
<td>4 Varieties</td>
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<td>1 Location</td>
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Application Information

<table>
<thead>
<tr>
<th>Product &amp; Analysis</th>
<th>Crop</th>
<th>Rate per Acre Description</th>
<th>Timing</th>
<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prudent Presto Gold Label 6-18-5 with 0.25% B, 1% Mn</td>
<td>Corn, Wheat</td>
<td>1 gallon of Prudent Presto in 9 gallons of water for a finished spray volume of 10 gallons per acre</td>
<td>V3 and/or R1</td>
<td>MKP, KaPre Embella, Baypure®, Prudent 42, KaPre AG, KaPre Phonix, anhydrous ammonia, Incite*, sugar</td>
</tr>
<tr>
<td>Prudent Presto Red Label 6-18-5 with 0.21% B, 0.21% Mn, 0.11% Cu, 0.21% Fe, 0.07% Zn</td>
<td>Soybeans, Alfalfa</td>
<td>1 gallon of Prudent Presto in 9 gallons of water for a finished spray volume of 10 gallons per acre</td>
<td>V3 and/or R1</td>
<td>MKP, KaPre Embella, Baypure®, Prudent 42, KaPre AG, KaPre Phonix, anhydrous ammonia, Incite*, sugar</td>
</tr>
</tbody>
</table>

* Added at time of shipment
Foliar Applications:

High Pod is the best way to safely provide a crop under stress with supplemental nitrogen. It will not only feed the plant it will also deliver the necessary food sources to feed the beneficial bacteria so they can do a better job supplying nitrogen and other nutrients to the plant for the rest of the growing season. It also mixes well with Spunk, Prudent® Presto and other foliar products.

MicroBOOST is formulated with KAPre® AG, KAPre® Spectra, and Krystal Klear® Ca. Mix with UAN 28 when topdressing wheat and/or add to starter fertilizer programs. This product will increase biological activity in the root zone. It contains an entire community of beneficial microbes along with food to get the microbes established. It also contains a complete list of plant essential amino acids that will support the crop for the entire growing season.

Applications:

Micro boost will work best when applied in furrow at planting time. It is also effective when added to fertilizer and applied 2 x 2. In wheat, MicroBOOST can be added to UAN 28% and sprayed over the crop at top dressing time.
**SPUNK**

SPUNK (0-0-9.75) is formulated with Prudent® RX, KaPre® Phonix, KaPre® Spectra and Incite* to prevent pod and flower abortion in soybeans, extend silk life in corn and enable plants to pull more moisture from dry soils. Agra Solutions studies have shown yield increases of 10 to 20 bushels have been achieved in dry years. Spunk is also a great source of Potassium and Sulfur. Growers have used this product to correct nutrient deficiencies and to supplement their fertility programs. The picture to the right is from a field that was severely deficient in Potassium. While the treatment did not significantly change the appearance of the foliage, it did improve the yield by 20 bushels.

### Application Information

<table>
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<tr>
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<th>Crop</th>
<th>Rate per Acre</th>
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<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPUNK</strong> 0-0-10 with 6.75% S, 0.2% B</td>
<td>All Crops</td>
<td>1 gallon</td>
<td>R1 to R5</td>
<td>Prudent Rx, KaPre Spectra, Krystal Klear B, KaPre PhoNix, Potassium Thiosulfate, Incite*, sugar</td>
</tr>
</tbody>
</table>

**SPUNK Increased Yield by 20 BUSHELS!**

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**Stalk Cruncher**

Stalk Cruncher (6-3-2) is formulated with KaPre® Embella and KaPre® AG. It helps break down stalks and plant material resulting in less trash to manage the following spring at planting time.

### Application Information

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<tr>
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<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stalk Cruncher</strong> 6-3-2</td>
<td>All Crops</td>
<td>1 Gallon</td>
<td>After Harvest</td>
<td>KaPre Embella, KaPre AG, UAN 28%, 5-13-8, sugar</td>
</tr>
</tbody>
</table>

* Added at time of shipment
Last Call is designed to enlarge the size of grain kernels. The product should be applied after grain production has begun in the plant and is designed to increase cell size when the grain is the only place on the plant where the cells are growing. Agra Solutions studies have shown yield increases ranging from 3 to 18 bushels per acre.

### Application Information

<table>
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<tr>
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<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Last Call 11-7-4</strong></td>
<td>All grain crops</td>
<td>1 gallon</td>
<td>During early grain fill</td>
<td>5-13-8, 18-1-0-1S, VitaGib®</td>
</tr>
</tbody>
</table>

For best results, apply to small plants. Power Mist is a nutritional powerhouse for all crops. Power Mist is a blend of nutrients balanced in the same proportions that are found within that of a actively growing plant. It is an ideal foliar product for soils that have below average fertility or when it is not practical to invest in a soil applied fertility program. Power Mist is very cost effective and will easily increase yields in nutrient challenged environments. Agra Solutions research has shown yield increases of 4 to 5 bushels.

### Application Information

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Mist 3-3-2 with 0.06% Ca, 0.06% Mg, 0.015% Fe, 0.12% Mn, 0.12% B, 0.12% Zn, 0.03% Cu</strong></td>
<td>All Crops</td>
<td>1 gallon</td>
<td>V3 to V8</td>
<td>Urea, MKP, Krystal Klear Agra Mix III, Krystal Klear Ca, Krystal Klear Mg, Prudent 42, KaPre Phonix, anhydrous ammonia, sugar</td>
</tr>
</tbody>
</table>
MicroKING is the most economical yet complete seed treatment mix available today. It is formulated with Prudent® 42, KaPre® Embella, KaPre® AG, KaPre® Phonix, Prudent RX®, Prudent®ST and VARNIMO® ST. MicroKing has significantly out-yielded most conventional soybean seed treatments by as much as 5 to 10 bushels per acre and corn seed treatments by as much as 13 to 15 bushels per acre. Urea Phosphite and Nutrol help protect against many fungal diseases, while the beneficial bacteria from the KaPre AG will assist the plant by protecting the root zone and making nutrients available to the plant. The KaPre Embella found in the MicroKing is a superior bio-stimulant which serves as an excellent source of nutrition for all beneficial microbes in the soil. It is also a great source for almost 20 plant essential amino acids.

The KaPre Phonix is a Patented potassium fertilizer solution increases early plant growth by enhancing carbon fixation and enhances the plants’ ability to tolerate environmental stress.

Prudent Rx will replace many of the essential micro-nutrients that can be tied up with the use of Glyphosate.

VARNIMO ST when used in the MicroKing seed treatment is an extremely powerful biological nematicide. That attacks the nematode at different life stages. Varnimo ST will also increase plant vigor as it exudes several plant beneficial enzymes and breaks down complex fertilizers into plant absorbable forms.

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</tr>
</thead>
<tbody>
<tr>
<td><strong>MicroKing</strong> 5-2-2 with 0.1% Cu, 0.1% Mn, 0.1% Zn, 0.1% Fe</td>
<td>All crop seeds</td>
<td>5 ounces per 100# seed</td>
<td>SEED TREATMENT</td>
<td>Prudent 42, KaPre Embella, KaPre AG, KaPre Phonix, Prudent RX, Prudent ST, VARNIMO ST</td>
</tr>
</tbody>
</table>

TrenchKote is the most complete in furrow mix available and is especially effective on soils with below average fertility levels. It is safe enough to go in furrow at a 2 quart rate and can be used at higher rates when placed 2 x 2. Add TrenchKote to a starter fertilizer for everything the corn plant or soybean plant needs to get off to a fast start. Agra Solutions studies have shown yield responses ranging from 8 to 15 bushels per acre.

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</tr>
</thead>
<tbody>
<tr>
<td><strong>TrenchKote</strong> 1-0-0 with 0.05% B, 0.25% Cu, 0.12% Fe, 0.5% Mn, 2.0% Zn</td>
<td>All Crops</td>
<td>64 ounces</td>
<td>In Furrow</td>
<td>KaPre AG, KaPre Embella, KaPre Phonix, Krystal Klear Crop Mix III, Prudent 42, Prudent RX</td>
</tr>
</tbody>
</table>
Hustle has Prudent® Presto Gold as its largest component and to that we have added a new biological compound, 2 new food sources for the beneficial microbes found in the Presto, and a unique group of amino acids to support the biological life in the soil. Hustle is formulated to be added to starter fertilizer for both corn and soybeans. It can also be added to UAN 28% when the wheat crop is top dressed in the spring. Hustle has shown very impressive yield increases in replicated testing done by Agra Solutions.

### Application Information

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</tr>
</thead>
<tbody>
<tr>
<td><strong>HUSTLE</strong></td>
<td><strong>All</strong></td>
<td>1 gallon</td>
<td>In Furrow At planting or over the top at wheat topdressing time</td>
<td>Krystal Klear Ca, Prudent Presto Gold, KaPre AG, Prudent 42, KaPre Embella, and sugar</td>
</tr>
</tbody>
</table>

### Alfalfa Hay Mix

Alfalfa Hay Mix (5-12-7) is formulated with Prudent® Presto Gold Label and Incite*. Applications of Alfalfa Hay Mix have increase crop longevity and tonnage when used on alfalfa. In fact, growers have reported that fields sprayed with Alfalfa Hay Mix as part of their annual fertility program will last about 3 years longer than fields without the treatment.

### Application Information

<table>
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<tr>
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<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alfalfa Hay Mix</strong></td>
<td>Alfalfa Hay</td>
<td>3 gallons</td>
<td>2 to 5 leaf stage</td>
<td>5-13-8, Prudent Presto Gold, Krystal Klear B, Potassium Thiosulfate</td>
</tr>
</tbody>
</table>

### Grass Hay Mix

Grass Hay Mix (12-6-3) is formulated with High Pod and Krystal Klear® Agra Mix III for leaf expansion and faster recovery. Increases in tonnage have been significant where the Grass Hay Mix is used.

### Application Information

<table>
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<tr>
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<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grass Hay Mix</strong></td>
<td>Grass Hay</td>
<td>3 gallons</td>
<td>2 to 3 inches</td>
<td>High Pod, 5-13-8, Krystal Klear AgraMix III</td>
</tr>
</tbody>
</table>
**Lawn Mix SR**  
Lawn Mix is formulated with High Pod and Krystal Klear® AgraMix III to increase the health and eye appeal of your lawn.

<table>
<thead>
<tr>
<th>Product &amp; Analysis</th>
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<th>Rate per Acre</th>
<th>Timing</th>
<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lawn Mix SR</strong></td>
<td>Lawns</td>
<td>3 gallons</td>
<td>Anytime in the growing season</td>
<td>High Pod, 5-13-8, Krystal Klear AgraMix III, Nitamin</td>
</tr>
</tbody>
</table>

**Stress Mix**  
Stress Mix strengthens the plant and improves natural disease resistance.

<table>
<thead>
<tr>
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<th>Crop</th>
<th>Rate per Acre</th>
<th>Timing</th>
<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stress Mix</strong></td>
<td>All Crops</td>
<td>3 gallons</td>
<td>Anytime in the growing season</td>
<td>Prudent RX, 5-13-8, Prudent 42, KaPre AG, KaPre PhoNix, KaPre Embella, Prudent Presto Gold</td>
</tr>
</tbody>
</table>

**Green House Mix**  
Green House Mix is formulated with Prudent® Rx, KaPre® AG, KaPre® Embella, Prudent® Presto Gold, Krystal Klear® Mg and Prudent® RX. It is a complete source of nutrients as well as beneficial bacteria for use in greenhouses.

<table>
<thead>
<tr>
<th>Product &amp; Analysis</th>
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<th>Rate per Acre</th>
<th>Timing</th>
<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green House Mix</strong></td>
<td>All Crops</td>
<td>1 gallon to 500 gallons water</td>
<td>Anytime in the growing season</td>
<td>18-1-0-1S, 5-13-8, Prudent RX, KaPre AG, KaPre Embella, Prudent Presto Gold, Krystal Klear Mg, Prudent RX, sugar</td>
</tr>
</tbody>
</table>
**Cucurbit Stress Mix**
Cucurbit Stress Mix is formulated with Prudent® 42®, Prudent® Presto Gold, KaPre® Embella, KaPre® AG, Krystal Klear® Ca and Prudent® RX to help by relieving environmental stress during the growing season and increasing plant health. It has shown great benefit when used on all members of the cucurbit family when the plants are in the reproductive stage.

<table>
<thead>
<tr>
<th>Application Information</th>
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<tbody>
<tr>
<td>Product &amp; Analysis</td>
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<tr>
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<tr>
<td>Cucurbit Stress Mix</td>
</tr>
</tbody>
</table>

**Mint Pusher Mix**
Mint Pusher Mix is formulated with Krystal Klear® Crop Mix II, Prudent® Presto Gold, KaPre® AG, Prudent® 42 and KaPre® Embella. This combination will help wake up the mint and get it off to a quick start.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Product &amp; Analysis</td>
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<tr>
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</tr>
<tr>
<td>Mint Pusher Mix</td>
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</tbody>
</table>

**Sulfur Mix**
Sulfur Mix is an economical source of Sulfur for all crops and can be used to supply supplemental Sulfur to the crop during the growing season.

**Applications:**
Use 1 to 2 pints in furrow at planting or 1 to 2 quarts when used in a foliar application. If placed 2 x 2 or used when side dressing corn with UAN 28% then any rate from 1 to 5 gallons per acre.

<table>
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<tbody>
<tr>
<td>Product &amp; Analysis</td>
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<tr>
<td>Sulfur Mix</td>
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</table>
Recommendations