



EOP 2017



Vibrant® Patented Foliar Fertilizers

Item	Package Size	Description	Price/UOM
Vibrant® Green	2x2.5 Gallon	18-3-4 with 1% Fe, 0.1% Mn, Zn & 0.025% B with organic compounds	\$32.00 Gallon
Vibrant® Purple	2x2.5 Gallon	18-0-4 with 1% Fe, 0.1% Mn, Zn & 0.025% B with organic compounds	\$32.00 Gallon
Vibrant® Red	2x2.5 Gallon	3-6-12 with 0.1% Cu, Fe, Mn and Zn, 0.05% Si & 0.025% B plus organic compounds	\$32.00 Gallon
Vibrant® Silver	2x2.5 Gallon	3-0-12 with 0.1% Cu, Fe, Mn and Zn, 0.05% Si & 0.025% B plus organic compounds	\$32.00 Gallon

Krystal Klear® Patented Chelated Micronutrient Solutions

Item	Package Size	Description	Price/UOM
Krystal Klear® B	2x2.5 Gallon	5% Boron	\$26.00 Gallon
Krystal Klear® Ca	2x2.5 Gallon	3% Calcium	\$26.00 Gallon
Krystal Klear® Cu	2x2.5 Gallon	5% Copper	\$44.00 Gallon
Krystal Klear® Fe	2x2.5 Gallon	4% Iron	\$33.00 Gallon
Krystal Klear® Mg	2x2.5 Gallon	3% Magnesium	\$40.00 Gallon
Krystal Klear® Mn	2x2.5 Gallon	5% Manganese	\$36.00 Gallon
Krystal Klear® ResQ	2x2.5 Gallon	8-0-2 with 2% Fe, 0.5% Mg, 0.5% Mn, 0.25% B, Cu, Zn	\$43.00 Gallon
Krystal Klear® Turf Mix	2x2.5 Gallon	3% Fe, 1% Mn, 0.25% Cu, 0.25% B	\$39.00 Gallon
Krystal Klear® Zn	2x2.5 Gallon	9% Zinc	\$40.00 Gallon

Pennamin Patented Chelated Micronutrients, Microbial Population Boosters & Chelating Powders

Item	Package Size	Description	Price/UOM
Pennamin® Driver - P	8x5 Lb	12-0-0 Water Soluble Amino Acids	\$14.00 Lb
Pennamin® Fe&Mn	8x5 Lb	9-0-0+4%Fe+3%Mn - Water Soluble	\$13.00 Lb
Pennamin® High-K	8x5 Lb	6-0-15 + 9% Ca - Water Soluble	\$13.00 Lb
Pennamin® Mg	8x5 Lb	12-0-0 +12%Mg - Water Soluble	\$13.00 Lb
Pennamin® Perfect-K	8x5 Lb	8-0-9 + 5% Ca, 2% Mg, 0.1% Fe, 0.05% Mn, 0.02% B, 0.02% Zn & 0.01% Cu	\$14.00 Lb
Pennamin® Si	8x5 Lb	10-0-0 + 4% Si	\$16.00 Lb

LidoQuest® EDTA Chelated Water Soluble Fertilizers

Item	Package Size	Description	Price/UOM
LidoQuest® FeMn	25 Lb Bag	10% Fe and 3% Mn	\$7.00 Lb.
LidoQuest® FeMn&Mg	25 Lb Bag	4.33% Fe, 4.33% Mn and 2% Mg	\$7.00 Lb.

Nutrol Bio-Pesticide, Fertilizer & Tank Buffer

Item	Package Size	Description	Price/UOM
Nutrol®	8 Lb Bag	Broad Spectrum Fungicide, Fertilizer and Tank Buffer	\$3.00 Lb

Prudent® Patented Phosphite Fertilizer Solutions

Item	Package Size	Description	Price/UOM
Prudent® 42cw	2x2.5 Gallon	15-0-0 with 42% PO3 - formulated with urea phosphite	\$60.00 Gallon
Prudent® 44	2x2.5 Gallon	15-0-0 with 42-44% PO3 - formulated with urea phosphite	\$60.00 Gallon

KaPre® Liquid Soil Amendments - Surfactants - Nutrients for Microbes

Item	Package Size	Description	Price/UOM
KaPre® Embella	2x2.5 Gallon	Patented Soil Amendment	\$60.00 Gallon
KaPre® ExAlt	2x2.5 Gallon	Soil Surfactant & Fertilizer Additive	\$98.00 Gallon
KaPre® KelpPlus	2x2.5 Gallon	Sea Kelp plus 17 Amino Acids and Vitamin C	\$30.00 Gallon
KaPre® PhoNix	2x2.5 Gallon	Patented Stress-Fighting Solution	\$120.00 Gallon
KaPre® ProCreate	2x2.5 Gallon	Patented NPK Solution with micros and PO3	\$46.00 Gallon
KaPre® Spectra	2x2.5 Gallon	Concentrated Fulvic Acid Solution	\$100.00 Gallon
KaPre® RemeD8-WSP & KaPre® Activ8	2x2.5 Gallon	Patented Soil Amendment & Fertilizer Additive	\$94.00 Gallon

VermaPlex® Liquid Worm Casting Extract

Item	Package Size	Description	Price/UOM
VermaPlex®	2x2.5 Gallon	OMRI listed Worm Casting Extract	\$14.00 Gallon



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Plant Growth Regulators

Item	Package Size	Description	Price/UOM
Agra Rouse®	1 Gallon Bottle	0.05% Cytokinin, 0.05% Gibberellic acid & 0.09% IBA	\$260.00Gallon
Incite®	1 Gallon Bottle	0.09% Cytokinin, 0.05% Gibberellic acid & 0.09% IBA	\$260.00Gallon

NutriSmart Patented Eco-Fertilizer

Item	Package Size	Description	Price/UOM
NutriSmart®- B SGN 150	50 Lb Bag	0-0-0 - OMRI Listed Soil Inoculant	\$0.57 Lb.
NutriSmart®- B SGN 250	51 Lb Bag	0-0-0 - OMRI Listed Soil Inoculant	\$0.57 Lb.
NutriSmart®- SB SGN 250*	52 Lb Bag	0-0-0 - OMRI Listed Soil Inoculant	\$0.47 Lb.

Z.one® Patented Zeolite Soil Conditioners

Item	Package Size	Description	Price/UOM
Z.one® T&O 250, SGN 150	50 Lb Bags	Patented Soil Conditioner with KaPre® Soil Amendments	\$0.95 Lb
Z.one® VitaSmart, SGN 150	50 Lb Bags	Patented Blend of Z.one® T&O-250 and NutriSmart®-B	\$1.00 Lb

Black Castings™ Premium Worm Castings

Item	Package Size	Description	Price/UOM
Black Castings	40 Lb Bag	OMRI Listed Wormj Castings, 1-0.5-.05+1%Ca	\$0.81 Lb

Argosy Patented Rain-Fast, Elastic Adjuvants

Item	Package Size	Description	Price/UOM
Argosy RF	2x2.5 Gallon	Rain-Fast Adjuvant for Pesticide Applications	\$65.00 Gallon

Alkaline Hydrolysis Can Cost You Time and Money

Wasted Product, Poor Results, Re-sprays and Extra Manpower Can Result

Have you ever applied a pesticide or herbicide and it didn't work? You may have thought that it was caused by applicator error, pest resistance or the chemical itself; however, it could very well be the pH of the water and tank solution that caused the problem. As a result, even though you used the right chemical for the target pest or weed, you find yourself not knowing if a re-spray will work any better than the first spray.

Checking the pH of the tank solution and buffering it (if the pH is too high for the chemistry you are applying) will pay dividends in reduced pesticide costs, consistent optimal performance and peace of mind.

The impact of pH on pesticides

Here is what the University of Nevada has to say about pH and its impact on pesticides: *"The characteristics of water used in a spray mix influence the effectiveness of some pesticides. One of the most important is the pH of the water.... Water with a pH higher than 7 is alkaline. Many pesticides...undergo a chemical reaction in the presence of alkaline water that reduces their effectiveness. This reaction is called **alkaline hydrolysis**. The pesticide is hydrolyzed and rendered ineffective when it is mixed with water with a pH greater than 7. The more alkaline the water, the more rapidly the pesticide breaks down."*

"The hydrolysis can be very fast when the water is greater than 8 or 9. For every unit increase in pH, the rate of hydrolysis increases 10 times. Some pesticides

begin to break down as soon as they are combined with alkaline water in the tank, especially when the pH is very high. As a consequence, the active ingredients start to change to inactive ingredients before the pesticide even leaves the tank!"

Raymond Cloyd of The University of Illinois advises: "Insecticides and miticides are more susceptible to alkaline hydrolysis than fungicides and herbicides. Many insecticides and miticides...degrade under alkaline conditions. For example, Malathion, Kelthane, Dylox, and Turcam are very sensitive, degenerating within a few hours after diluted in alkaline water...."

Other pest-control materials can be affected by high pHs. For example, a pH of 8 can reduce the efficacy of Bacillus thuringiensis (Dipel, Thuricide, and Javelin) toxins and the insect growth regulator azadirachtin (Azatin)". **See Table 1**

So take the time to check the pH of the water and the tank solution (before and after you add the other components of the tank mix), and buffer the water to the manufacturer's recommended pH range.

NOTE: Never buffer solutions containing fixed copper or lime fungicides, including Bordeaux, copper oxide, basic copper sulfate, copper hydroxide, etc. or lime.

Plant damage will occur if these and similar chemicals are applied at an acidic pH.

**Nutrol® EPA Registered Tank Buffer
Prevents Alkaline Hydrolysis....**

Nutrol® EPA Registered Tank Buffer Prevents Alkaline Hydrolysis **And.... it's a Bio-Fungicide & Water-Soluble P & K Fertilizer**

Nutrol® is a unique product. Its versatility, safety and multi-purpose capabilities make it a must have tool in your arsenal of turf and crop fertility and disease control products.

Nutrol® is an EPA registered fungicide that can suppress and eradicate powdery mildew (when used alone) and several soil and foliar diseases when tank mixed with Prudent® fertilizers (see Nutrol label for details). Nutrol is also a highly concentrated, low salt index, water soluble P & K fertilizer that quickly corrects phosphate and potassium deficiencies.

And equally important, **Nutrol®** is an excellent tank buffer that will acidify and buffer distilled water to a pH range of 4.5 – 5.5. Many pesticides and herbicides 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 and herbicide 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.***

Nutrol® is a true buffer. Not only will it acidify water but, once the tank solution reaches equilibrium, **it will maintain a constant pH while you mix and apply the chemical.**

What is pH?

pH is a scale that expresses the concentration of hydrogen (H) ions in a solution.

It represents the acidity and alkalinity of a solution on a range between 1 and 14.

A pH of 7 is neutral, less than 7 is acid and more than 7 is alkaline.

It's error-free since you can't add too much **Nutrol®** to the tank (**see Chart 1**).

Nutrol® is easy to use:

- Determine the manufacturer's recommended pH for the product you intend to apply.
- Check the pH of your water. Perform a jar-test to determine how much **Nutrol®** is needed to buffer the water to the desired pH. (**see Table 2 and Chart 1 for procedures**).

Note: a 1% solution is the typical application rate.

- Add half the water to the tank.
- Slowly add **Nutrol®** to tank while agitating the solution.
- Add the remaining water and continue agitation. **Nutrol®** is completely soluble.
- When pH reaches the desired pH add other components to the tank.
- Apply immediately after mixing.

Nutrol® is available from your local Performance Nutrition® dealer in three easy to use package sizes: 50 pound bags, 24 pound "Greens Pack" bags (1- 2 bags can treat 18 golf course greens), and, in cases holding 5 x 8 pound "Acre-Pack" bags (1 – 2 bags treat 1 acre).

What does "half-life" mean?

Half-life is the period of time it takes for one-half of the amount of pesticide in the water to degrade.

Each half-life that passes reduces the amount of pesticide in the water by one half, i.e. 100% to 50% to 25% to 12.5% to 6.25%, etc.

Table 1: Information about the Half Life of Pesticides at Different pH

Common Trade Names	Chemistry	Optimum	Alkaline	Neutral	Acidic
		pH	(pH 8-9)	(pH 7)	(pH 4-6)
Weedar	2,4-D amine	4.5	Unstable	Stable	Stable
Orthene	Acephate	7	16 days	46 days	40 days
Assail	Acetamiprid	5 to 6	unstable	stable	unstable
Mitac	Amitraz	9.2	35 hours	15 hours	1.2 hours at 5.1
AATrex, Atratol, Fogard, Gesaprim, Griffex, Mebazine, Primatol A, Vectal	Atrazine	Decomposes slowly in alkaline solutions; rapidly if lime is present.			
Guthion, Azimil	Azin-phos methyl	5.5	12 hours	10 days	17 days
Heritage	Azoxystrobin	Stable over a wide range of pH.			
Acrobe, B 401, Bactimos, Bactis Dipel, Foray, Gnatrol, Javelin, Vectobac	Bacillus thuringiensis	<= 8.0	Incompatible with highly alkaline materials.		
Turcam, Dycarb, Genate, Multamat, NC 6897, Niomil, Rotate, Sedox, Seedoxin, Tattoo	Bendiocarb	5	45 minutes	3 days	48 days
Talstar	Benfenthrin	Stable over pH range 5 to 9			
Agrocit, Benlate, Benosan, Fundazol, Tersan 1991	Benomyl	5	Unstable	1 hour	80 hours at 5.0
Captaf, Captanex, Captazel, Captol, Merpan, Meteoro, Orthocide, Phytocape, Sepicap, Sorene	Captan	5	10 minutes	8 hours	32 hours at 5.0
Sevin, Arylam, Bug Master, Carbamec, Carbamine, Crunch, Denapon, Devicarb, Dicarbam, Hexavin, Karbaspray, Murvin, NAC, Patrin, Ravyon, Savit, Septene, Tercyl, Thinsec, Tornado, Tricarnam	Carbaryl	7	24 hours	24 days	100 days
Furadan, Furacarb, Bay 70143, Carbodan, Carbosip, Chinufur, Curaterr, Kenofuran, Nex, Pillarfuran, Rampart, Yaltox	Carbofuran	5	3 days	Stable	Stable
Lorsban, Dursban	Chloropyrifos	5	1.5 days	Stable	Stable
Bombardier, Bravo, Daconil 2787, Exotherm Termil, Farber, Jupital, Ole, Pillarich, Repulse, Taloberg, Tuffcide	Chlorothalonil		Stable	Stable	Stable
Apollo	Clofentezine		4.8 hours	34 hours	
Junction	Copper hydroxide & Mancozeb	5	Optimum range of 4 to 7		
Ammo, Cymbush	Cypermethrin	4	35 hours	Stable	Stable
Knox-Out, D.Z.N., Spectricide	Diazinon	7	3 weeks	10 weeks	2 weeks
Banvel	Dicamba	5.5	Unstable	Unstable	Stable at 5 – 6
Kelthane	Dicofol	5	1 day	5 days	20+ days
Cygon, DeFend, Dimate	Dimethoate	4	48 minutes	12 hours	21 hours
Gowan Dimethoate E267	Dimethoate	5	1 hour	12 hours	20 hours
Ortho Diquat	Diquat	Stable at pH 7 or below; decomposes in alkaline conditions.			
Di-syston	Disulfoton	5	7 hours	32 hours	60 hours
Thiodan	Endosulfan	6.5	Unstable	Stable	Stable
Ethion	Ethion	8	8.4 weeks		
Baytex	Fenthion	Incompatible with alkaline material.			

Information about the Half Life of Pesticides at Different pH, *Continued*

Common Trade Names	Chemistry	Optimum	Alkaline	Neutral	Acidic
		pH	(pH 8-9)	(pH 7)	(pH 4-6)
Fusilade	Fluazifop-P-butyl	4.5	17 days	147 days	455 days
Cutless	Flurprimidol	Stable over a wide range of pH.			
Revolver	Formsulfuron	7			
Carzol	Formetanate		3 hours	14 hours	17.3 days
Aliette	Fosetyl-al	6	unstable	stable	stable
	Gibberellic Acid	<7.0	Should not be mixed with alkaline materials.		
RoundUp	Glyphosate	3.5-4.0			
Admire, Merit	Imidacloprid	7.5	Greater than 31 days at pH 5-9		
Rovral, Chipco 26019	Iprodione		Chemical breakdown at pH above 8.0		
Cythion, Fyfanon	Malathion	6	19 hours	3 days	8 days at 6.0
Ridomil, Subdue Maxx	Metalaxyl	5 to 9	Buffer to a pH of less than 7.5		
Lannate	Methomyl		Unstable	Stable	Stable
Nudrin	Methomyl		39% loss in 6 days		Stable at 5.5 - 6
Manor	Metsulfuron methyl benzoate	>7	May degrade in acid solutions in 24 hours.		
Nova	Myclobutanil		Not affected by pH.		
Dibrom	Naled	5	48 hours	Stable	Stable
Vydate	Oxymyl	5	30 hours		Stable at 4.7
Parathion, Metacide, Thiophos	Parathion	7	29 hours	120 days	
Prowl	Pendimethalin		Stable	Stable	Stable
Ambush, Astro, Pounce	Permethrin	4	Unstable	Stable	Stable
Zolone	Phosalone	6	Stable	Stable	9 days
Imidan	Phosmet	4.5	4 hours	12 hours	13 days at 4.5
Dimecron	Phosphamidon		30 hours	13.5 days	74 days
Thimet	Pralidoxime chloride	6	Unstable	Stable	Stable
Omite, Comite	Propargite	6.0	1 day at 9.0	331 days at 6	17 days at 3
Orbit	Propiconazole		Stable at pH 5 to 9		
Princep	Simazine	5	24 days		96 days at 5.0
SpinTor	Spinosad	6	200 days	stable	unstable
Matador	Tau-fluvalinate	6.5	Unstable	Stable	Unstable
Gardona	Tetrachlorvinphos		80 hours	44 days	53 days
Cleary 3336	Thiophanate-methyl	6 to 7	Unstable	Stable	Unstable
Bayleton	Triadimefon		Stable over a wide range of pH.		
Dylox	Trichlorfon	6	63 minutes	6.5 hours	3.7 days at 6.0
Monument	Trifloxy sulfuron-sodium	7			
Insignia	Pyraclostrobin		Stable over a wide range of pH.		
Treflan	Trifluralin	Very Stable	Stable	Stable	Stable



KaPre[®] ExAlt

Polyelectrolyte Solution

Concentrated Soil Surfactant for Healthy & Productive Soils



What it does

- **Unlocks soil-bound nutrients**
- **Enhances nutrient use efficiency**
- **Corrects compacted soils**
- **Selectively flushes sodium from root zone**
- **Detoxifies soil pollutants**
- **Improves drainage**
- **Reduces and eliminates black layer**
- **Aids in sod establishment**
- **Allows for easier seed germination**

Why Use KaPre ExAlt?

KaPre[®] ExAlt electrolyte solution improves the availability of nutrients in the soil and enhances the performance of fertilizer applications. KaPre ExAlt corrects compacted soils and eliminates soil “crusting”, making it easier for newly germinated seeds to pop through the soil. KaPre ExAlt flushes sodium from the soil profile while keeping needed micronutrients in the root zone. KaPre ExAlt provides a natural, eco-safe solution for the long-term health of the soil.

For General Maintenance:

KaPre ExAlt may be used in maintenance applications to improve nutrient uptake, correct mineral build up, improve drainage, reduce black layer and stimulate plant growth.

For Curative Application:

For the treatment and rejuvenation of highly compacted soils, salt-contaminated soils, damaged soils affected by hydrophobicity and to aid in the recovery of soil damaged by soil borne pathogens.

As a Rescue Application:

KaPre ExAlt remediates flood-stressed or over-fertilized areas, treats and rejuvenates compacted soils, detoxifies salt-contaminated soils, and remediates soils impacted by poor water quality.



What's in it

KaPre ExAlt is a proprietary formulation of polyelectrolytes and plant-based surfactants that work together to improve soil structure, crop and turf quality and nutrient use efficiency.

Application guidelines

KaPre ExAlt is suitable for use on agricultural crops, and turf & ornamental plants.

Maintenance Rates:

Apply KaPre ExAlt at a rate of one – two pints (16 - 32 fluid oz.) per acre every month throughout the growing season.

Curative Rates:

Apply KaPre ExAlt at a rate of one – two pints (16 - 32 fluid oz.) per acre every week for the first month followed by one – two pints (16 - 32 fluid oz.) per acre every month throughout the season.

Apply labeled rates of KaPre RemeD8 Soil Amendment as a tank mix with KaPre ExAlt or within 3-7 days after the KaPre ExAlt application.

Rescue Rates:

Apply KaPre ExAlt as a soil spray at a rate of 1 – 2 pints mixed with 10 - 20 gallons of water per 1,000 ft².



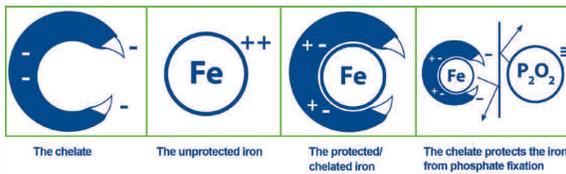
Krystal Klear®

Chelated Iron Solutions

The Performance Edge: Patented Dual Chelation

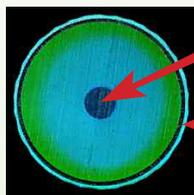
What is a chelate?

The word chelate (pronounced: "key-late") is derived from the Greek word "chele" which literally means "claw". Hence, chelate refers to the pincer-like manner in which a metal nutrient ion is encircled by the larger organic molecule (the claw), usually called a ligand or chelator.



Chelated micronutrients are protected from oxidation, precipitation, and immobilization in certain conditions because the organic molecule (the ligand) can combine and form a ring encircling the micronutrient. The pincer-like manner in which the micronutrient is bonded to the ligand changes the micronutrient's surface property and favors the uptake efficiency of foliarly applied micronutrients.

Chelation occurs when certain large molecules form multiple bonds with a micronutrient, protecting it from reacting with other elements in the nutrient solution and increasing its availability to the plant.



Chelated metal being protected from attraction to other materials.

A good chelating agent protects the metal from all sides.

Why is Krystal Klear Iron so effective?

Dual Chelation: Utilizes patented, biodegradable IDS in conjunction with EDTA to maximize the benefits of both chelating agents.

Stability Constant, which refers to the equilibrium state of a metal cation and a ligand to form a chelating complex: A good stability constant is one in which the bond is strong enough to hold the metal in solution but not so strong that it doesn't release the metal when applied.

Number of ligands: This refers to the ligands or "legs" that bond the metal to the chelating agents. For example, EDTA has 6 and Baypure has 5 ligands while citric acid has 3 carboxylic ligands and glucoheptonate has 1. The higher the number of legs means more cation surface area is covered.

That is why both EDTA and Baypure chelated metals are stable in orthophosphate solutions for an extended period while others fall apart and precipitate over time.





Give Your Turf A Boost

Agra-Rouse™ is a blend of bio-stimulants containing naturally-occurring and synthetic plant growth regulators and plant hormones that give you a boost of healthy, sustained growth on your turf, trees and ornamentals.

How it works:

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. It works with the plant's own natural physiology to stimulate growth, vigor and health. Agra-Rouse may be used as a supplement to fertilizers either as part of the Performance Foliar Treatment™ program or applied as part of the Performance Soil Treatment™.

Where to use it:

Lawns • Trees • Golf Courses • Parks • Athletic Fields • Greenhouse & Field Ornamentals
Turf Seed Production • Sod Production

Turf

Agra-Rouse has the ability to help turf recover after periods of heavy traffic or high stress. On newly applied sod, Agra-Rouse improves establishment by encouraging new root growth and root penetration of the soil. It also aids to improve resistance to winter kill and frost damage. Agra-Rouse helps to break the dormancy of Bermudagrass, Zoysiagrass and Paspalums. In high traffic areas, in weak areas otherwise slow to recover, and on tee complexes, Agra-Rouse promotes growth. When sprayed prior to aeration, Agra-Rouse helps core holes to close faster. It aids in the recovery from pesticide damage and can even heal from the bronzing effect caused by some PGR's. Agra-Rouse improves the efficacy of fertilizers applied through fertigation.

Deciduous or Coniferous trees or shrubs

Agra-Rouse promotes the initiation of new growth. It helps boost resistance to winter kill and protect against frost damage. Applied to Christmas trees, Agra-Rouse helps trees retain their dark green color after cutting.

Ornamentals

In the field, Agra-Rouse promotes the initiation of new growth, aids in the establishment of annual plantings, and helps improve resistance to winter kill and frost damage. In the greenhouse, Agra-Rouse encourages new root growth and root penetration of soil.



What it does:

- Stimulates plant growth and development
- Enhances cell division
- Increases cell differentiation
- Promotes cell enlargement
- Develops root growth
- Aids nutrient use efficiency

Benefits you may expect:

- Faster seed germination
- Quicker sod establishment
- Healthier plants
- Improved turf quality
- Vigorous recovery from damage
- Stronger leaf blades
- Deeper roots