

Agricultural PRODUCT CATALOG



PERFORMANCE
NUTRITION®

Performance Nutrition is a division of LidoChem, Inc.

ABOUT

Performance Nutrition was established by LidoChem, Inc. in 1999 to develop new eco-responsible products and programs for the sustainable agricultural market. The Performance Nutrition product line of specialty performance products is tailored to meet the ever-increasing demand for safe, efficient and cost-effective crop fertility and pest management products.

Through the innovation of its staff of technical and product development professionals, the Performance Nutrition division has assembled an array of powerful bio-pesticides, patented chelated micronutrient solutions, specialty fertilizers, soil inoculants and yield enhancement products that are not only effective but environmentally and applicator friendly as well. Performance Nutrition products are sold across the country by local dealers familiar with local growing practices and problems.

Performance Nutrition's Ecosystem Management® Approach to Crop Management demonstrates a commitment to the Fertilizer Institute's "4R" principles, and, its dedication to improve and maintain sustainable, productive farmland for the grower and the next generation of farmers.

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LidoChem, Inc.

PROFILE



LidoChem®, Inc., a family-owned business, was established in 1981 to secure and distribute water-soluble nutrients and related products for the specialty fertilizer industry from new off-shore sources. LidoChem, Inc. takes great pride in its role in facilitating the growth of the water-soluble fertilizer industry from its infancy to its current predominance.

LidoChem, Inc.'s Industrial Division continues to distribute raw materials for the specialty fertilizer, detergent and related industries from strategically located distribution centers,

and, remains a trusted name for almost four decades.

LidoChem, Inc. established the Performance Nutrition® Division in 1999 to pursue its vision of more sustainable and eco-responsible practices in the agricultural, turf and ornamental markets. Performance Nutrition's unique patented and proprietary specialty products allow growers to "bio-rationalize" their fertility and pest control programs by integrating organic and microbial-based products into conventional programs. Performance Nutrition was a pioneer in Sustainable Agriculture, beginning in 2000 with chemical-free NutriSmart® Soil Inoculants that deliver season-long N, P, K and Si through microbial activity.

Performance Nutrition® has assembled an ever-expanding array of specialty performance fertilizers, chelated micronutrient

solutions, bio-pesticides, soil inoculants, soil amendments and organic-based products that correct conditions that inhibit plant health and support conditions that enhance plant health and productivity, while utilizing and protecting the ecosystem.

These products are used together in an ecosystem management program comprising patented Performance Treatments, which address the critical parameters of healthy ecosystems. Performance Treatments are available for soil health, plant health and seed treatments. Custom programs are also developed to deliver season-long fertility and pest management.

Performance Nutrition products are sold throughout the USA by local dealers familiar with local growing practices and challenges.



PERFORMANCE NUTRITION

Performance Nutrition is a division of LidoChem, Inc.



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The Right Time for NUTRIENT STEWARDSHIP *IS RIGHT NOW**



- ✔ **RIGHT FERTILIZER SOURCE**
- ✔ **RIGHT RATE**
- ✔ **RIGHT TIME**
- ✔ **RIGHT PLACE**

4R Nutrient Stewardship represents an innovative approach to fertilize best management practices (BMPs). The 4Rs imply there are four aspects to every fertilizer application and it provides a framework to assess whether a given crop has access to the necessary nutrients. Asking “Was the crop given the right source at the right rate, at the right time, and in the right place?” helps identify opportunities to improve fertilizer efficiency and prevent nutrient movement from each field.

Benefits of using the 4Rs include:

Improving agricultural productivity

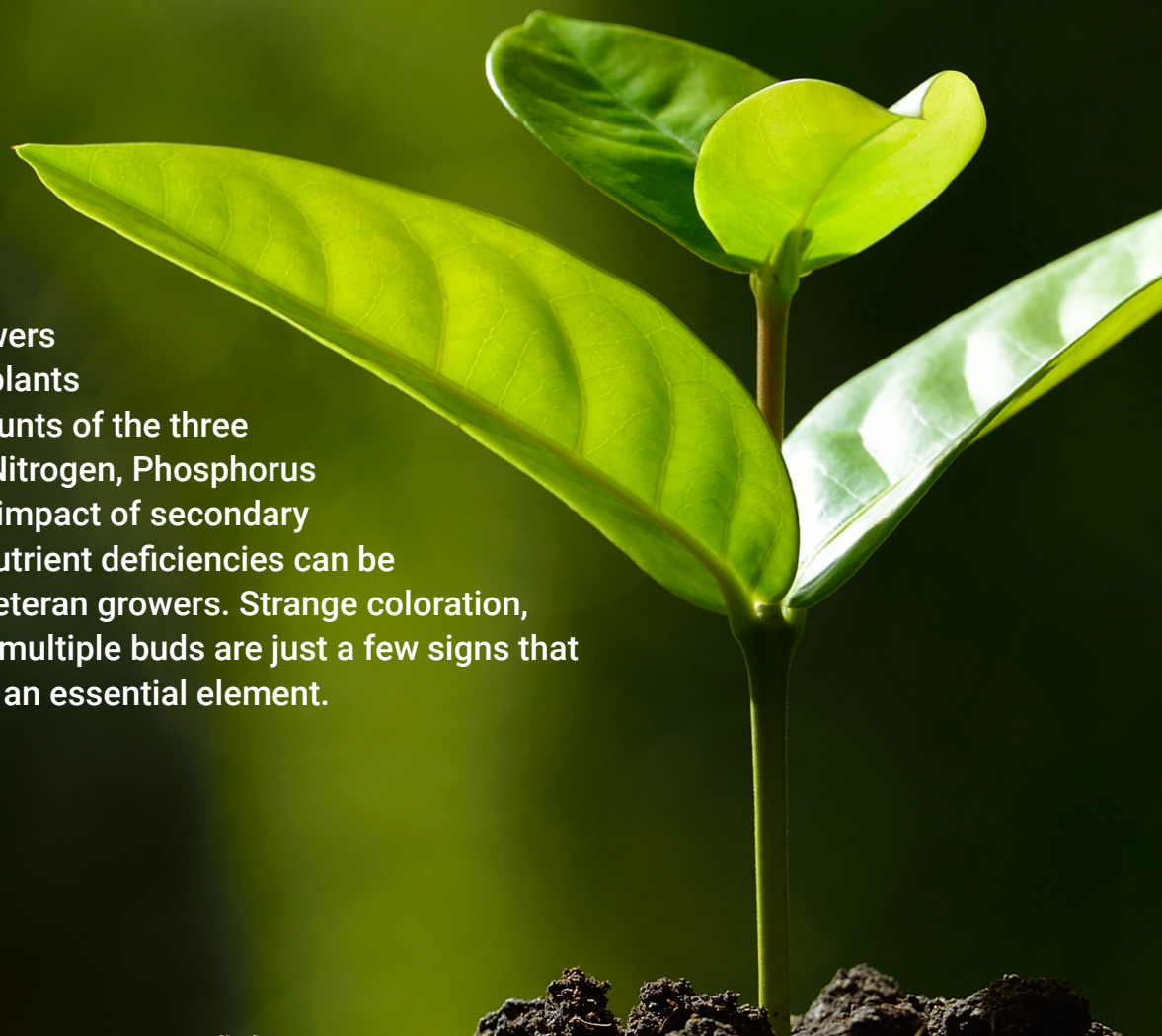
- Optimizing nutrient management is key when dealing with fertilizer and other input price fluctuations, as well as the price of crops
- Higher yields have been documented with better crop and soil management

Minimizing the impact to the environment

- Adopting nutrient stewardship contributes to the preservation of natural ecosystems by growing more on less land
- Retaining nutrients within a field’s boundaries greatly reduces the amount that is not utilized by plants and escapes into the environment as pollution

Know Your **NUTRIENTS...**

While most growers know that all plants require varying amounts of the three primary nutrients - Nitrogen, Phosphorus and Potassium, the impact of secondary nutrient and micronutrient deficiencies can be surprising to even veteran growers. Strange coloration, stunted growth and multiple buds are just a few signs that the soil is lacking in an essential element.



PRIMARY NUTRIENTS

Nitrogen:

Used most out of the three primary macronutrients, nitrogen is the major constituent in chlorophyll. It affects shoot and root growth, density, color, disease resistance and stress tolerance.

Phosphorus:

Second most important primary macronutrient, phosphorous is an essential part of photosynthesis and impacts the rate of seedling development, maturation and root growth.

Potassium:

The third most important primary macronutrient, and typically occurs naturally in the soil. Essential for cell division, cell electrolyte balance and the functioning of the stomates and influences drought tolerance, cold hardiness and disease resistance.

SECONDARY NUTRIENTS

Calcium:

Buffers the soil pH, making it more alkaline, and is essential for root health, growth of new roots and root hairs and the development of leaves.

Magnesium:

Essential for photosynthesis (part of chlorophyll), improves utilization and mobility of phosphorus and acts as an activator of many plant enzymes.

Sulfur:

Found in amino acids that make up plant proteins, and activates certain enzyme systems.

MICRO NUTRIENTS

Boron:

Aids production of sugar and carbohydrates and in cell division and cell wall formation.

Chlorine:

Required for photosynthesis.

Copper:

Involved in photosynthesis, respiration and the formation of lignin. Regulates cell wall construction and cell growth and division.

Iron:

Essential for the formation of chlorophyll, photosynthesis and nitrogen metabolism.

Manganese:

Stimulates enzymatic activity, helps chloroplast production and enhances root growth and fruit development. May influence resistance to certain diseases.

Molybdenum:

Helps in nitrogen fixation and is required for protein synthesis.

Nickel:

Essential component of the plant's natural defense system.

Zinc:

Required for the synthesis and functioning of chlorophyll, is involved in the plant hormone system and is a catalyst for auxin.



KaPre *Specialty Products*



KaPre[®] ExALT POLYELECTROLYTE SOLUTION

KaPre[®] ExAlt is a safe and effective tool to un-lock soil-bound nutrients, improve Nutrient Use Efficiency and balance soil micronutrients.

Guaranteed Analysis

Active Ingredients

Humic Acids 35%
Water 65%

Application Instructions

Apply KaPre ExAlt at a rate of 4-16 fluid oz. per acre at planting and then every two weeks throughout the growing season.

Do Not Mix With Selective Herbicides when used at a rate higher than 4 oz./acre.

BENEFITS OF KaPre ExAlt

- Solubilizes and releases soil-bound ions, such as calcium, magnesium, iron, manganese, phosphorus and sulfur
- Flushes sodium from the root zone without indiscriminately stripping the soil of nutrients
- Improves soil drainage
- Stimulates deeper root systems
- Reduces crusting and penetrates hard pan
- Reduces soil compaction
- Increases soil aggregation
- Improves efficiency of fertilizers and other chemicals
- Improves soil aeration



KaPre® Embella

PATENTED FERTILIZER ADDITIVE

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

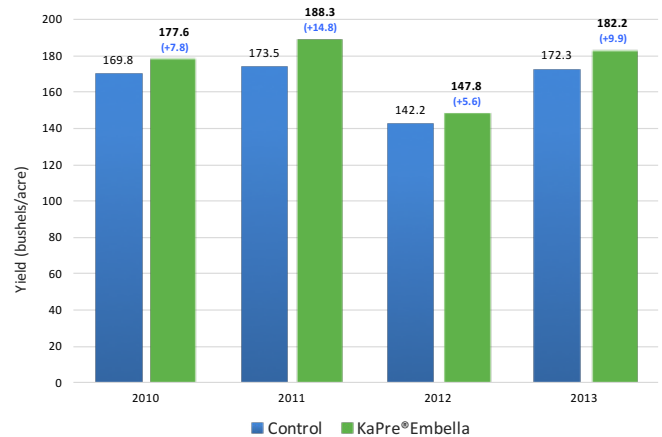
TO THE SOIL

- Provides nutrition for native microbial populations, 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

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

Effect of In Furrow Applications of KaPre Embella on Corn Yield



Application Instructions

- **Alfalfa:** Soil apply 8-12 oz. per acre at or near dormancy break.
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.
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® PhoNix

PATENTED FERTILIZER SOLUTION

KaPre® PhoNix is formulated with LidoQuest® IDS-40 bio-degradable chelating agent as well as organic compounds that help reduce the effects of environmental stress and optimize yield potential.

0-0-20

Guaranteed Analysis

Soluble Potash (K₂O) 20%
Derived from potassium hydroxide

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 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.

BENEFITS OF KaPre PhoNix

- Reduces watering requirements
- Enhances tolerance to abiotic stress, such as drought, nutrient deficiencies, temperature extremes, etc.
- Increases sugar content
- Extends plant productivity
- Increases plant turgidity

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.

Ounces of KaPre® PhoNix per Volume of Spray Tank Solution	
Gallons of Solution per Acre	Ounces of KaPre PhoNix
2-4	0.75 - 1.5
5	1 - 2
10	2 - 4
25	6 - 8
50	16



KaPre[®] Spectra CONCENTRATED FULVIC ACID SOLUTION

KaPre[®] Spectra improves the foliar uptake of nutrients and micronutrients and can improve fertilizer performance when added to starter or foliar fertilizer applications.

Non-Plant Food Ingredients

Fulvic Acid	20%
Other Ingredients	80%
Total	100%

BENEFITS OF KaPre Spectra

Increases nutrient absorption

- Makes nutrients more absorbable by complexing them into organic, ionic forms that are easily transported through cell membranes

Improves fertilizer efficiency

- Increases plant uptake of soil and foliar applied nutrients. 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.

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.





Agra-Rouse contains:

- .09% Indole-3-Butyric Acid (IBA) – Auxin
- .05% Gibberellins
- .05% Cytokinins

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™

BLENDED PHYTOHORMONE SOLUTION

Agra-Rouse™ is a blend of bio-stimulants containing naturally-occurring and synthetic plant growth regulators and plant hormones known to encourage root development and propagation, promote cell division and enhance plant yields. The phytohormones work with the plant's own natural physiology to stimulate root growth and development.

BENEFITS OF Agra-Rouse

- Faster seed germination
- Promotes root development and upward growth
- Stimulates cell elongation in roots and stems
- Larger leaves and fruit
- Regulates apical dominance
- Improved heat, cold and drought tolerance
- Improved disease tolerance
- Higher yields



Incite contains:

- .05% Indole-3-Butyric Acid (IBA) – Auxin
- .05% Gibberellins
- .09% Cytokinins

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™

BLENDED PHYTOHORMONE SOLUTION

Incite™ is a blend of bio-stimulants containing naturally-occurring and synthetic plant growth regulators and plant hormones known to promote cell division, shoot initiation, and bud formation, and, stimulate chlorophyll synthesis and leaf expansion from cell enlargement. They work with the plant's own natural physiology to stimulate top growth, increase vigor and improve overall plant health.

BENEFITS OF Incite

- Promotes cell division, shoot initiation and bud formation
- Larger leaves and fruit - stimulates chlorophyll synthesis and leaf expansion from cell enlargement
- Plants more tolerant of heat, cold and drought
- Plants less susceptible to disease
- Higher yields
- Faster seed germination



VitaGib® & VitaGib® FieldMaster

40% WATER SOLUBLE PLANT GROWTH REGULATOR

VitaGib® products deliver growth-inducing gibberellic acid that increases yield on a wide variety of fruit and vegetable crops, horticultural plants, forage crops and row crops.

VitaGib products are powerful additions to certain Performance Nutrition programs. VitaGib products stimulate plant growth and improve the plant's nutrient uptake capacity.

BENEFITS OF VitaGib 40%

Fruit Crops

- Increases fruit set and yield
- Reduces early-season small fruit drop
- Produces larger, brighter colored, firmer fruit
- Extends leaf retention and maintains green foliage

Vegetables

- Accelerates maturity for early harvest
- Increases plant height and yield
- Overcomes stress due to cold weather conditions or saline soils
- Stimulates uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants

BENEFITS OF VitaGib 40% and FieldMaster

Row Crops

- Promotes early season plant vigor and more uniform seedling growth
- Increases plant height allowing for improved harvesting efficiency
- Increases pod set and increases the growth of the plant
- Enhances post-emergence grass control
- Maximizes yield potential
- Stimulates root growth

BENEFITS OF VitaGib FieldMaster

Perennial Forage Grasses

- Stimulates dry matter production for grazing, hay, green chop when cool season conditions limit growth rates. Stimulates root growth

See Full labels for application instructions

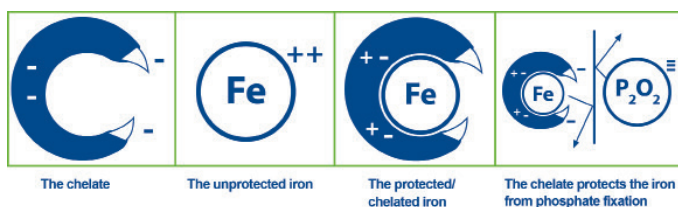


CHELATED MICRONUTRIENT SOLUTIONS



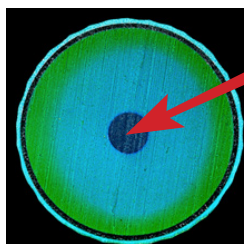
WHAT ARE CHELATES?

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.

Why are Krystal Klear micronutrient solutions so effective?

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

Stability Constant: 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 LidoQuest® IDS-40 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 LidoQuest® IDS-40 chelated metals are stable in orthophosphate solutions for an extended period while others fall apart and precipitate over time.





Krystal Klear®

PATENTED CHELATED MICRONUTRIENT SOLUTIONS

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. Ideal for foliar, hydroponic and drip applications. Can be applied with ortho-phosphates!

CHELATED MICRONUTRIENTS FOR AGRICULTURE

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



LidoQuest® PATENTED CHELATED MICRONUTRIENT SOLUTIONS

LidoQuest® micronutrient solutions are formulated with LidoQuest® IDS-40 and citric acid, making them ideal for soil applications.

LidoQuest Mn

Guaranteed Analysis

Manganese (Mn) 5%
5% Chelated Manganese (Mn)

Derived from manganese IDS and manganese citrate

LidoQuest Zn

Guaranteed Analysis

Zinc (Zn) 9%
9% Chelated Zinc (Zn)

Derived from zinc IDS and zinc citrate

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

Do NOT mix with ortho phosphate products.

LIDOQUEST® AGRICULTURAL PRODUCTS

LidoQuest® Mn	Formulated with 5% Mn derived from manganese IDS and manganese citrate
LidoQuest® Zn	Formulated with 9% Zn derived from zinc IDS and zinc citrate

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

Elemental Zn required* (lbs./acre)	Quarts of LidoQuest® Zn	Pounds of LidoQuest® Zn
1	0.36	1
2	0.72	2
3	1.08	3
4	1.44	4
5	1.80	5

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

Elemental Mn required* (lbs./acre)	Quarts of LidoQuest® Mn	Pounds of LidoQuest® Mn
1	0.75	2
2	1.50	4
3	2.25	6
4	3.00	8

* by soil or leaf test



Pennamin®

PATENTED AMINO ACID SPRAYABLE POWDERS

Pennamin® amino acids and micronutrients safely and efficiently deliver foliar micronutrition and non-leaching organic nitrogen. Pennamin products improve the efficiency of fertilizers, support crop vigor, enhance root development and improve stress tolerance.

All Pennamin products contain a blend of 17 free L-amino acids and biodegradable LidoQuest® IDS-40.

Application Instructions

Pennamin Ca, CaMg, Fe&Mn, Mg, Driver-P, High K, Mg, Perfect K

Apply 1 - 5 lb. per acre
Apply every 14 to 28 days as needed throughout the growing season.

Pennamin Si

Apply 0.5 – 2.5 lb. per acre
Apply every 14 to 28 days as needed throughout the growing season.

THE PENNAMIN ADVANTAGE

- Pennamin products are readily absorbed by plant foliage.
- Pennamin products help chelate soil micronutrients, making them more available.
- Pennamin products have a low C:N ratio (6:1), which assures that the organic nitrogen is utilized by plants.
- Pennamin minerals are custom blended with enough amino acids to complex metals.

CHOOSE THE RIGHT PENNAMIN PRODUCT TO SUIT SPECIFIC CROP NEEDS

Products	Analysis	Total Amino Acid %
Pennamin® Ca	7-0-0 with 14% Ca	48%
Pennamin® CaMg	8-0-0 with 8% Ca and 8% Mg	51%
Pennamin® FeMn	9-0-0 with 4% Fe & 3% Mn	57%
Pennamin® Mg	10-0-0 with 12% Mg	64%
Pennamin® Driver- P	12-0-0	80%
Pennamin® High - K	6-0-15 with 9% Ca	40%
Pennamin® Perfect-K	8-0-9+5% Ca with 2% Mg, 0.1%	64%
Pennamin® Si	10-0-0 with 4% Si	64%





PATENTED PHOSPHITE FERTILIZERS

PRUDENT PRODUCTS ARE UNIQUE!

- Contain one of the highest percentages of PO_3 of any phosphite fertilizer
- Formulated with very little water allowing the PO_3 to remain stable in the jug; won't convert to PO_4 the way other 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

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.

BENEFITS OF PRUDENT PRODUCTS

- 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

Application Instructions for Prudent 42cw and Prudent 40 Plus (See product label for specific crop instructions)

Tree and Fruit Crops:

Apply 1 to 4 pints per acre per application.

Foliar Applications:

Prudent 42CW, Prudent 44 and Prudent 40 PLUS may be applied with all types of ground spraying equipment or by air. DO NOT exceed a rate of 1 ounce of product per gallon of water when using less than 20 gallons of solution per acre.



CONCENTRATED PHOSPHITE PRODUCTS

15-0-0

Guaranteed Analysis

Total Nitrogen (N)15%
 2.5% Ammoniacal Nitrogen
 12.5% Urea Nitrogen
 Derived from aqua ammonia and urea phosphite



Prudent® 42CW highly concentrated phosphite fertilizer is effective at very low use rates. It is an ideal partner product with Nutrol® EPA registered fungicide for control of soil borne and foliar diseases.

Prudent 42CW (15-0-0 with 42% PO₃) fertilizer is formulated with patented urea phosphite. Urea phosphite is a “eutectic”, which allows a high concentration of phosphite in the Prudent family of specialty fertilizers.

Also know as Prudent® 44 in some markets.

13-0-0

Guaranteed Analysis

Total Nitrogen (N)13%
 0.5% Ammoniacal Nitrogen
 12.13% Urea Nitrogen
 0.37% Other Water Soluble Nitrogen
 Derived from aqua ammonia, amino acids and urea phosphite



COMBAT
 ENVIRONMENTAL STRESSES
 WITH AMINO ACIDS

Prudent® 40PLUS highly concentrated phosphite fertilizer (40% PO₃, expressed as P₂O₅), is formulated with patented urea phosphite and Pennamin Driver-P amino acids. The amino acids aid in building tolerance against environmental stresses, help move nutrients into the plant, and, play important roles in almost every plant function. And, since they are free amino acids they are readily plant-available. This saved energy can then be used for other plant functions.

3-0-0

Guaranteed Analysis

Total Nitrogen (N)	3%
3% Urea Nitrogen (N)	
Boron (B)	0.15%
0.15% Water Soluble Boron	
Copper (Cu)	0.04%
0.04% Chelated Copper (Cu)	
Iron (Fe)	0.02%
0.02% Chelated Iron (Fe)	
Manganese (Mn)	0.15%
0.15% Chelated Manganese (Mn)	
Molybdenum (Mo)	0.5%
Nickel (Ni)	0.5%
0.50% Chelated Nickel (Ni)	
Zinc (Zn)	0.15%
0.15% Chelated Zinc (Zn)	

Derived from boric acid, copper IDS, iron EDTA, iron IDS, manganese EDTA, manganese IDS, molybdic oxide, nickel IDS, zinc EDTA, zinc IDS and urea phosphite.

Application Instructions

Prudent RX can be used on all types of vegetable, field crops, citrus including but not limited to tomatoes, peppers, soybean, corn, wheat, etc.

Rate and Timing:

Apply 1 ounce of Prudent RX per gallon of solution.

Apply as needed throughout the growing season.

DO NOT exceed 2 gallons per acre in a single year.

Optimal results are achieved when Prudent RX is applied with 3 – 8 lb. of Nutrol® per acre.



PATENTED SPECIALTY FERTILIZER

Prudent® RX chelated micronutrient solution is formulated with Krystal Klear® chelated micronutrients, Prudent® phosphates along with a proprietary blend of 18 L-amino acids. Applications of Prudent® RX provide crops with the components necessary for achieving nutritional balance, which help plants overcome symptoms caused by environmental stress.

PRUDENT RX:

- Delivers critical nutrients such as Nitrogen and Nickel with a broad array of micronutrients to balance and correct any nutritional deficiencies
- Delivers urea phosphite to help transport nutrients and micronutrients throughout the plant
- Provides important free amino acids like proline, glutamic acid and histidine
- Supplies a complete package of micronutrients to maintain optimum plant health

Prudent RX applications

HELP CORRECT MINERAL DEFICIENCIES

- Mineral deficiencies can affect a plant's resistance to disease and can also predispose plants to environmental stresses and infections by impairing nutrient uptake and utilization
- Nickel is a critical trace nutrient
- Nickel deficiency can cause an alarming number of crop problems and can interfere with several critical cycles and processes within the plant
- Nickel deficiency interferes with the shikimate acid pathway and tricarboxylic cycle, which are part of the plant's defense system
- Nickel directly or indirectly affects the activity of at least one critical enzyme in the urea cycle





SOIL INOCULANTS

For MAXIMUM Performance

NutriSmart®

PATENTED SOIL INOCULANTS

HOW DO NutriSmart PRODUCTS WORK?

- NutriSmart products elicit higher populations of native N-fixing microbes
- The yeast contained in each NutriSmart product form a symbiotic community of mutually interdependent, nutrient-releasing microbes
- When the yeast are signaled by the plant that it requires nutrients, NutriSmart products initiate the conversion and delivery process

NutriSmart PRODUCTS SUPPLY NUTRIENTS BY:

- Nitrogen fixation – microbial conversion of nitrogen into available forms
- NutriSmart yeast have 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

PLANT BENEFITS FROM NutriSmart APPLICATIONS

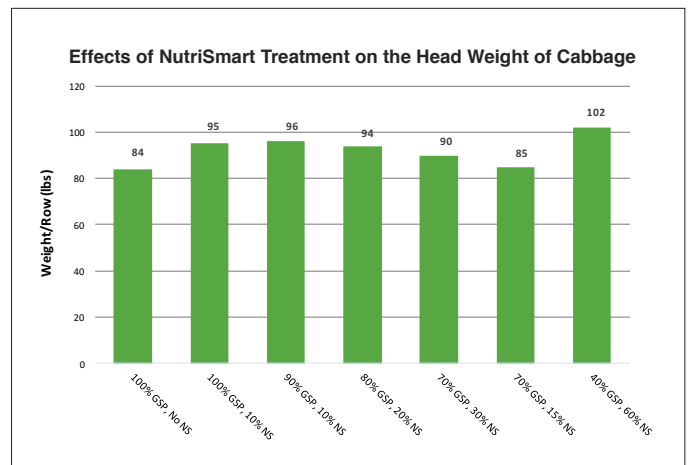
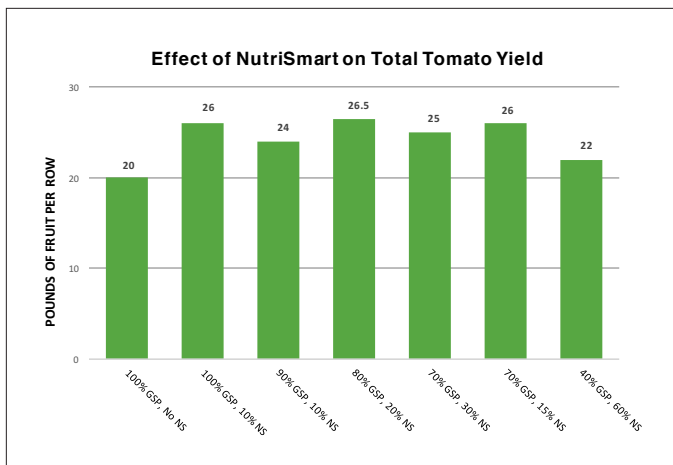
- Provide consistent, uniform slow-release of nitrogen
- Eliminate growth surges – nitrogen is released gradually throughout the plant's growth cycle, which results in precise feeding that lasts up to 18 weeks
- Improve plant growth, quality and yield
- International and U.S. commercial use and trials have demonstrated equivalent or better performance with NutriSmart-B applications vs. conventional fertilizer programs





SOIL AND ENVIRONMENTAL BENEFITS FROM NUTRISMART APPLICATIONS

- Improve the Nutrient Use Efficiency (NUE) of chemical fertilizers blended with NutriSmart-B. Can effectively replace up to 20-50% of soil applied fertilizer
- Improve soil fertility
- Reduce the leaching of chemical fertilizers
- Increase soil organic matter
- Improve the soil environment for beneficial microbes



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, palm, 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.



PATENTED OMRI LISTED SOIL INOCULANT & HUMATE GRANULES

NutriSmart®-B is a patented, environmentally friendly granular soil inoculant and humate soil amendment that fixes nitrogen from the atmosphere, solubilizes phosphate and unlocks potassium from the soil.

NutriSmart-B is suitable for certified organic farms. SGN sizes of 150-350



PATENTED SOIL INOCULANT & HUMATE GRANULES

NutriSmart®-SB is a patented, environmentally friendly granular soil inoculant and humate soil amendment that fixes nitrogen from the atmosphere, solubilizes phosphate and unlocks potassium from the soil.

NutriSmart-SB is suitable for conventional growers.



PATENTED WATER SOLUBLE POWDER

NutriSmart® WSP is a patented, water soluble yeast powder for spray or drip applications and should be applied with a source of humic acid. NutriSmart WSP is used all season to supplement and re-inoculate early season applications of NutriSmart granular products.

NutriSmart is a registered trademark of CK Life Sciences



KaPre® AG-WSP MICROBIAL SOIL INOCULANT *For All Crop Types*

The microorganisms contained in KaPre AG-WSP have been shown to increase nutrient availability, enhance nutrient cycling, as well as, improve soil structure and support root development.

Active Ingredients:

5.3 X 10⁹ cfu *Bacillus amyloliquefaciens* per gram
2.4 X 10⁹ cfu *Bacillus licheniformis* per gram
1.1 X 10⁹ cfu *Bacillus megaterium* per gram
4.5 X 10⁹ cfu *Bacillus subtilis* per gram

Inactive Ingredients:

Sucrose based culture medium

Application Instructions

Soil and Foliar Applications:

Add 0.15 to 1.0 ounce of KaPre AG-WSP per gallon of spray solution to a clean spray tank. Agitate solution and maintain agitation during application. Apply at planting and every 2-4 weeks during the growing season.



KAPRE AG-WSP MICROBES ARE:

- **Durable and sustainable:** All are spore formers, which can survive adverse conditions such as heat, cold, low/high pH, etc.
- **Rhizosphere competent:** All were sourced from the soil, so they can thrive in soil.
- **Quality Assured:** All are professionally fermented, identified through DNA analysis and backed by Certificate of Analyses documenting cfu/gram counts.
- **Prolific Enzyme Producers:** Together, they produce a wide range of beneficial enzymes and bio-active compounds that offer a number of plant health benefits.

WHAT TO EXPECT FROM KAPRE AG-WSP

- A more vigorous soil ecosystem
- Higher Cation Exchange Capacity (C.E.C.)
- Enhanced root development, germination rates and stress tolerance
- Faster nitrification process for better uptake of nitrogen
- Nitrogen fixation to supplement applied nitrogen
- Enhanced stress tolerance
- Quicker recovery from pathogen attack
- Prevention of excessive hydrophobic organic matter
- And much more



KaPre® *PitStop* MICROBIAL INOCULANT *For Manure Management*

The microorganisms contained in KaPre PitStop have been shown to increase nutrient availability, enhance nutrient cycling, as well as, help dissolve solids in manure pits.

Active Ingredients:

- 5.3 X 10⁹ cfu *Bacillus amyloliquefaciens* per gram
- 2.4 X 10⁹ cfu *Bacillus licheniformis* per gram
- 1.1 X 10⁹ cfu *Bacillus megaterium* per gram
- 4.5 X 10⁹ cfu *Bacillus subtilis* per gram

Inactive Ingredients:

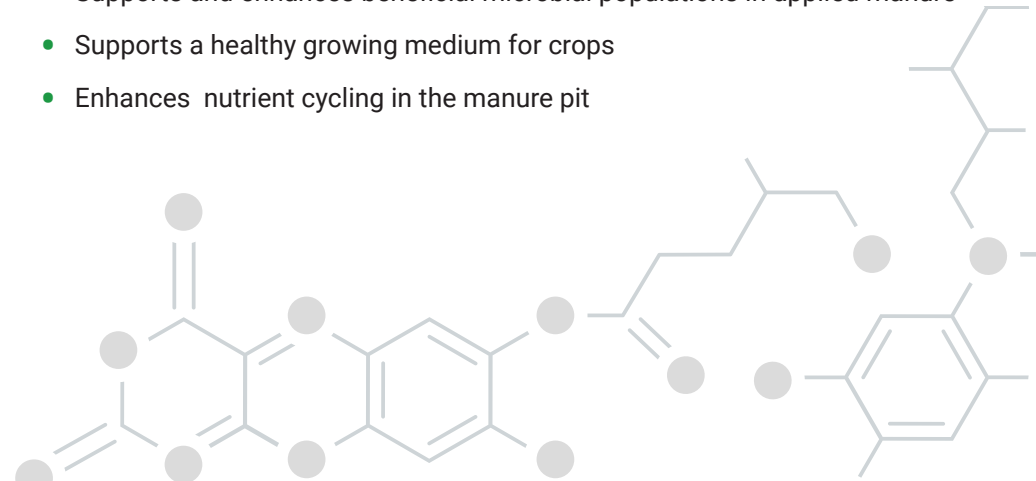
Sucrose based culture medium

Application Instructions

Add one 8 oz. packet of KaPre PitStop with 1-2 quarts of KaPre ExAlt per 100,000 - 125,000 gallons of manure. Apply directly to the pit once it has reached half capacity. Repeat application 2 weeks prior to haul out in order to treat newly added manure in the pit. Evenly distribute contents of the packet and KaPre ExAlt to the pit.

BENEFITS OF KAPRE PITSTOP

- Accelerates the breakdown of manure pit solids
- Prevents crusting
- Improves nutrient plant-availability of applied manure
- Supports and enhances beneficial microbial populations in applied manure
- Supports a healthy growing medium for crops
- Enhances nutrient cycling in the manure pit



ARGOSY

Rain Fast Polymer Adjuvants

Argosy® products are rain-fast, environmentally safe spreaders/stickers that make pesticides work better and virtually eliminate re-sprays. They encapsulate pesticides keeping them on the target even through rain events and irrigation. Since Argosy products are amphoteric, they can react with both acids and bases. When tank mixed, Argosy products enhance wetting and adhesion, as well as facilitate uniform foliar distribution of the active ingredient.

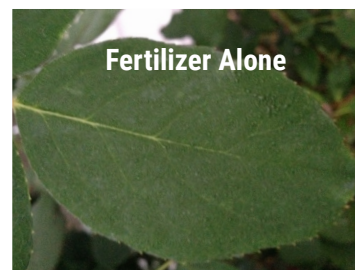
BENEFITS OF ARGOSY PRODUCTS

STICKER

When sprayed on the leaf surface, Argosy products enhance the adhesion of spray droplets to the leaf. It also keeps the pesticide on the leaf surface longer even when irrigation or rainfall occurs, extending the life of chemical applications. This means fewer applications and longer efficacy, which ELIMINATES RE-SPRAYS.



Draws ambient moisture from atmosphere to leaf.



SPREADER

When combined with a pesticide, Argosy products encourage 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 products allows the material to stretch as the plant leaf grows, protecting new growth.

DROUGHT TOLERANCE

Argosy products are retention agents. They have the ability to bind with water, which keeps moisture on a targeted substrate longer, keeps moisture in the plant longer and helps plants recover from drought conditions more quickly.

DRIFT CONTROL

Argosy RF forms heavier, larger drops that reach the target wet and holds it there. Trials have shown that up to 100% of applied aerial applications hit their target.

4 days without water





Argosy[®]-RF

WATER-SOLUBLE ADJUVANT

Application Instructions

Apply 1 pint to 1 gallon per 100 gallons of solution (as a 0.125 – 1.35 % solution) to enhance wetting and adhesion and to provide protection against phytotoxicity.

See product label for complete directions for use.

Approved for use with Engenia as an adjuvant!



Argosy[®]-Blue

WATER-SOLUBLE ADJUVANT *For Blueberries*

Application Instructions

Apply 2 to 4 quarts per 100 gallons of solution. When applied to berries, Argosy Blue forms a film to help prevent cracking. It also protects the integrity of the outer skin and cuticle of berries during the final growth stages.

See product label for complete directions for use.

Ingredient Disclosure:

Inert ingredients	4.32%
Water	95.68%
TOTAL	100.00%



BIO-PESTICIDES

For SUPERIOR Crops



NUTROL®

BIO-PESTICIDE- WATER-SOLUBLE PK FERTILIZER - TANK BUFFER

Nutrol® is a biopesticide effective against powdery mildew, a true tank buffer that can prevent alkaline hydrolysis and a highly concentrated, yet very gentle, water soluble PK fertilizer.

Nutrol, when used with any Prudent® fertilizer, can also control soil borne and foliar pathogens.

FUNGICIDE

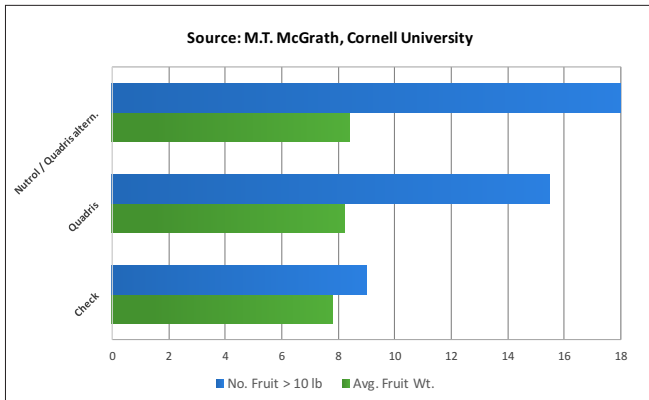
- Bio-pesticide labeled for use to control and eradicate powdery mildew and other soil-borne and foliar diseases
- Prevents the formation of resistant strains of powdery mildew when used in alternation with other labeled fungicides

TANK BUFFER

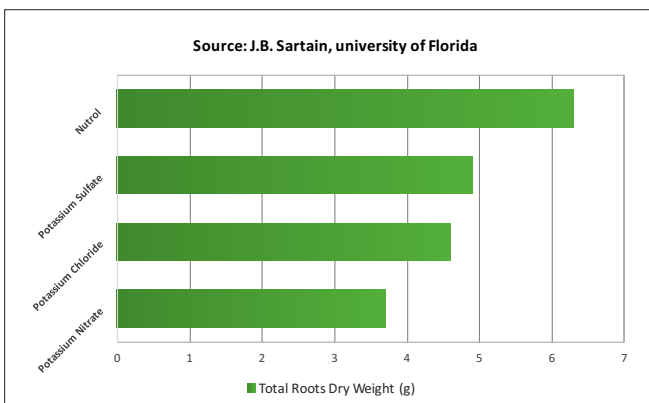
- Ensures optimal performance by preventing alkaline hydrolysis, which is the breakdown of pesticides by alkaline pH
- True buffer and can maintain the pH of tank solutions (The pH of a 1% aqueous solution of Nutrol in distilled water is 4.5 +/- 0.3)

NUTRIENT

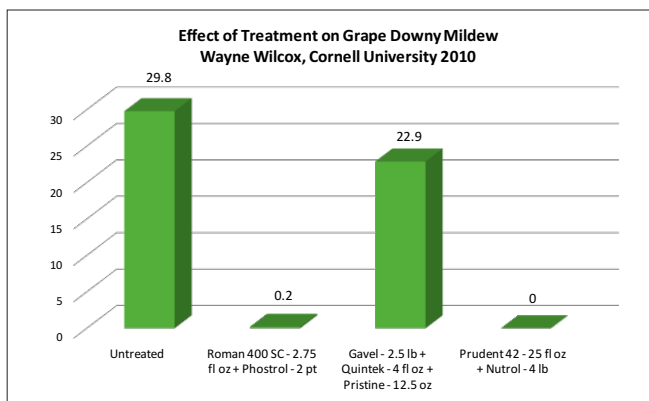
- Highly concentrated, water-soluble fertilizer containing over 50% P₂O₅ and 32% K₂O
- Safe to use, has the lowest salt index of any fertilizer and will not cause phytotoxicity even at high concentrations
- Suitable for foliar, soil and drip irrigation applications



Applications of Nutrol alternated with a fungicide increased fruit size and produced fruit with the highest percent solids (best fruit handle condition)



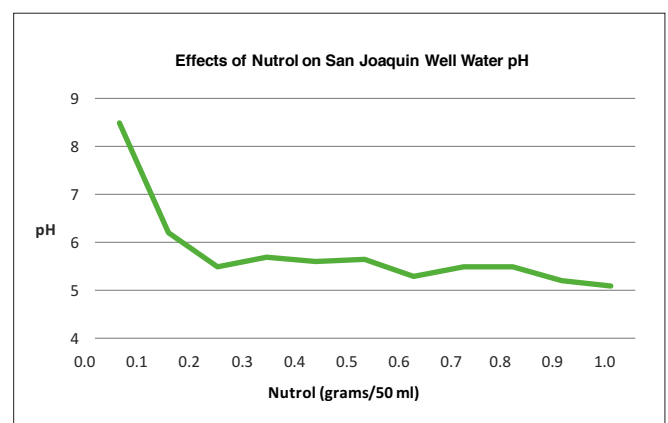
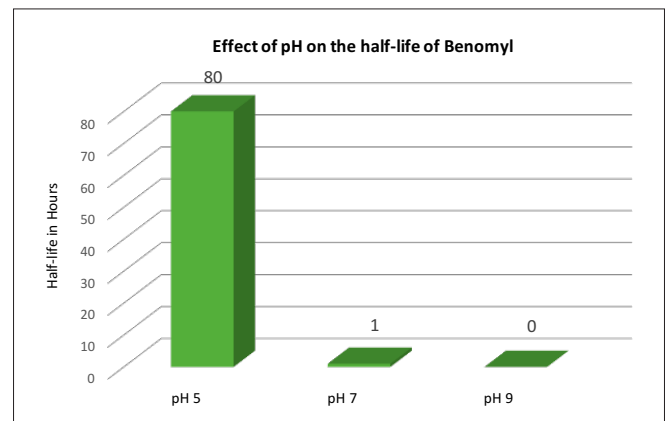
University studies show that using Nutrol as the source of potassium can increase root development when compared to other commonly used sources of potassium.



University studies demonstrated that the combination of Nutrol with Prudent 42CW provided superior control of downy mildew on grape compared to some industry standard programs.

IS ALKALINE WATER COSTING YOU MONEY?

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.





Varnimo[®]-IF BIO-PESTICIDE

Varnimo[®]-IF biological, in-furrow soil treatment provides early season protection against plant-parasitic nematodes on field corn, popcorn, sweetcorn, soybean and potato. Varnimo-IF also helps establish a vigorous root system that can result in enhanced yield potential, more uniform foliage and consistent and strong plant development.

Application Instructions

Direct application to the soil, into the seed furrow where the seed is placed, behind the planter furrow openers and/or in front of the press wheel. Ensure the furrow is completely closed and covered with soil after application.

Corn & Soybean

0.04 – 0.2 ounces per acre
Use higher rates when nematode pressure is high based on soil counts.

Potato

0.5 – 1.5 ounces per acre
Use higher rates when nematode pressure is high based on soil counts.

BENEFITS OF Varnimo-IF

- Improves plant quality, density and color
- Improves root tolerance against abiotic stress
- Controls various pathogenic nematodes
- Deeper roots and more root mass
- Higher yields
- Economical and effective
- Easy to handle and mix
- Easy-to-apply





Application Instructions

Field Crops:

Soil apply 10 ounces Kelpene CSW per acre in-furrow. Foliar apply 5 – 10 ounces per acre as soon as possible after emergence and then again in 30 – 45 days.

Produce (Single Harvest):

Apply 7 – 14 ounces of Kelpene GPX per acre to transplant water. Make 3 – 5 foliar applications of 7 – 10 ounces per acre every 2 – 3 weeks starting within 2 weeks of transplant or emergence.

Produce (Multiple Harvest):

Apply 7 – 14 ounces of Kelpene GPX per acre to transplant water. Make 3 – 8 foliar applications of 14 ounces per acre every 2 – 3 weeks, starting within 2 weeks of transplant or emergence.

Leafy Greens:

Apply 7 – 14 ounces of Kelpene GPX per acre to transplant water. Make 3 – 5 foliar applications at 10 ounces per acre every 2 – 3 weeks starting within 2 weeks of transplant or emergence. Do NOT apply after mid-season.

Fruit Trees and Bush Crops:

Foliar apply 10 – 15 ounces of Kelpene GPX 3 – 5 times per season, beginning just before or right after bloom, and follow up with 1 – 2 early season applications, 1 – 2 mid-season applications and 1 late season application.



PLANT EXTRACT SOLUTIONS

Kelpene® applications have been shown to support plant health, improve nutrient uptake, encourage robust root development and increase yields.

Plants become more resilient and adaptive to periods of environmental stress, such as high heat, intense sunlight, shade, un-expected cold, drought, salinity, anaerobic conditions and water stress, etc.

What are KELPENE Products?

KELPENE products are blends of sea kelp extracts, and, plant extracts, primarily terpenes, derived via a unique proprietary extraction process. KELPENE plant extracts are derived from plants that have thrived in diverse environmental conditions.

Benefits of KELPENE Products

- Establish environmental adaptability
- Improve stress management
- Increase plant resilience
- Higher yields
- Increase root mass and root tips
- Improve nutrient uptake
- Enhance tissue responsiveness
- Elevate Nutrient Use Efficiency
- Enable better allocation of plant energy
- Nourish plants and soil microbes with organic carbon
- Fortify plants with naturally-occurring phyto-hormones
- Improve uptake of calcium





Ormanic™ XTRAKT LIQUID WORM CASTING EXTRACT



Ormanic™ XTRAKT premium low-salt organic fertilizer is derived exclusively from earthworm castings, and, is rich in a proprietary blend of soil microbes and mycorrhizae that rejuvenate the soil and support healthy plants and turf. Our worms are raised indoors in a climate-controlled environment and fed a consistent diet free of animal and yard waste, assuring consistent quality all season long.

Ormanic XTRAKT is safe and easy to use for both soil and foliar applications – the low salt formulation will not burn or damage plants. In addition, it is free of pathogens, and, produced without any animal or yard waste.

Contains 0.13% Nitrogen, 0.01% Phosphorus, 0.016% Potassium.
Also contains 0.0013% B, 0.004% Ca, 0.006% Fe, 0.0008% Mg and 0.0003% Mn.

Application Instructions

Drip irrigation for Field Grown Vegetables, Strawberries, etc.: Mix 2 to 5 gallons of Ormanic XTRAKT per 100 gallons of water. Apply as needed or every 14 to 28 days throughout the growing season.

Soil-less media, including Coca Noir, Rock Wool, etc.: Mix Ormanic XTRAKT at a 5 to 10% concentration. Apply every 7 to 14 days throughout the growing season.

Hydroponics: Mix 2 to 4 ounces of Ormanic XTRAKT per 10 gallons of water. Apply as needed or every 7 to 14 days throughout the growing season.

Mineral Media: Mix 2 to 4 ounces of Ormanic XTRAKT per 10 gallons of water. Apply as needed or every 14 to 28 days throughout the growing season.

FEATURES AND BENEFITS

- Enriches the soil to feed the plant
- Promotes soil fertility and inoculates the soil with beneficial microbes and mycorrhizae
- Encourages biological activity in the soil by cultivating the growth of beneficial soil microbes.
- Enhances the efficiency of applied fertilizers by increasing C.E.C
- Increases availability and uptake of essential nutrients
- Accelerates root establishment and increases root mass
- Enhances plant growth, flowering and fruit production
- Improves disease, drought and stress tolerance
- Increases water holding capacity of the soil
- Reduces transplant shock
- Helps degrade thatch



Ormanica™

PREMIUM PLANT COMPOST SOIL AMENDMENT

Ormanica™ (1% N, 0.3% P₂O₅ and 0.7% K₂O) is an all natural, low odor, non-compacting refined premium plant compost manufactured with a proprietary process that utilizes earthworms, vegetable matter, agricultural grade mulch and beneficial bacteria. This process generates easy-to-apply, uniform small particles. Their small particle size combined with a large surface area allows them to break down rapidly and release stored nutrients easily.

Application Instructions

Vegetable Crops:

Incorporate Ormanica at a rate of 500 -1,500 lb. per acre at seeding.

Row Crops:

Incorporate Ormanica at a rate of 50 -100 lb. per acre at seeding.

Fruit and Landscape Trees:

Broadcast Ormanica at a rate of 1 lb. per 1 inch of tree diameter.

Soil Remediation:

Incorporate 125 - 150 lb. per 1,000 ft² into the damaged soil and re-apply 60 - 90 days later at a rate of 50 - 75 lb. per 1,000 ft².

FEATURES AND BENEFITS

- More cost effective than peat and richer in nutrients than compost produced by other methods
- Fully composted, eliminating the need for sterilization. Contains no animal waste
- Rich in microbial life, which diversifies the soil microbial community
- Improves and sustains soil physical properties
- Enhances the availability of plant nutrients – increases CEC
- Increases the water holding capacity of root zone mixes reducing irrigation frequency
- Improves stress tolerance
- Accelerates root initiation, establishment and development.
- Enhances germination, plant growth and crop yield





Just Fischen™ LIQUID FISH HYDROLYSATE

Just Fischen™ liquid fish hydrolysate is produced through a specialized, cold-process enzymatic digestion of fresh water fish (rainbow trout). There are no chemicals used in this process, resulting in a 100% natural, liquefied fish, with none of the beneficial oils and proteins removed.

It is a rich source of natural protein and mineral nutrients for both plants and soil microbes. Just Fischen has a fresh fish scent, unlike the offensive odor of fish emulsions.

2-3-1

Guaranteed Analysis

Total Nitrogen (N) 2.0%
 1.7% Water Soluble Nitrogen
 0.3% Water Insoluble Nitrogen
 Available Phosphate (P₂O₅)... 3.0%
 Soluble Potash (K₂O)..... 1.0%

Derived from fish hydrolysate (stabilized with phosphoric acid) and Sulfate of Potash



FEATURES AND BENEFITS

- Low salt, chlorine free, naturally extracted organic fertilizer
- Low odor compared to fish emulsions
- Easy to apply; won't clog equipment
- Concentrated and long lasting – doesn't need to be applied as often as other fertilizers
- Source of nitrogen, phosphate, potassium and other minerals
- Rich in natural enzymes, amino acids, oils and trace elements for improved plant health
- Improves disease resistance to soil-borne pathogens
- Feeds beneficial soil microbes and creates a more fertile soil environment
- Helps rebuild overworked and unproductive soil

Application Instructions

Can be used on all crops as a foliar or soil application at a rate of 4 ounces Just Fischen per 1 gallon of water.

Vegetable crops: Apply up to four times per year. Make the first application at planting; the second application when the first primary leaves appear; the third application at pre-bloom; and the fourth application at pre-harvest.

Field crops: Apply up to four times per year. Make the first application at planting; the second application when grains are 4-5" tall, corn is 8-10" tall and beans have their first true leaves; the third application at pre-boot, pre-bloom or pre-tassel and the fourth application at pre-harvest.

Fruit and Shade Trees: Apply to the soil 1-2 times per month with supplemental foliar applications between soil applications.

Cuttings and Transplants: Soak the soil around the root zone and/or spray roots at transplanting with a solution of Just Fischen.

Seed and Bulb soak: Soak seeds or bulbs in a solution of Just Fischen for approximately 12 hours.

Compost Enhancer: Mix 1/3 cup of Just Fischen per gallon of water and apply every 2-3 weeks over the compost.

Hydroponics: Mix 1 quart of Just Fischen per 50 gallon tank or 1.5 quarts per 75 gallon tank. Apply as needed.

OMRI LISTED

Organic Products

BLACK SEA KELP

Black Sea Kelp 1-1-10 organic liquid sea kelp is derived from sustainably farmed seaweed that is rich in potassium, trace minerals and naturally occurring phytohormones.

Black Sea Kelp nourishes plants and soil microbes with organic carbon, strengthens cell walls with potassium, fortifies plants with naturally-occurring phyto-hormones, chelates micronutrients with mannitol (a natural sugar) into forms that are readily available for plant uptake and stimulates root growth and beneficial microbe activity, allowing plants to absorb nutrients more efficiently.

FISH HYDROLYSATE

Fish Hydrolysate is produced through a specialized, cold-process enzymatic digestion of fresh water fish (rainbow trout). There are no chemicals used in this process, resulting in a 100% natural, liquefied fish, with none of the beneficial oils and proteins removed.

It is a rich source of natural protein and mineral nutrients for both plants and soil microbes. Fish Hydrolysate has a fresh fish scent, unlike the offensive odor of fish emulsions.

NUTRISMART-B

NutriSmart[®]-B is a patented, environmentally friendly granular soil inoculant and humate soil amendment that fixes nitrogen from the atmosphere, solubilizes phosphate and unlocks potassium and silica from the soil.

MICROBAC

MicroBac is a concentrated suspension of fungi that provides support for over-worked or stressed soils (i.e. soils affected by drought stress, heavy equipment compaction, chemical runoff) as well as soils depleted by intensive growing, erosion and weathering.

LIQUID HUMATE PLUS

Liquid Humate Plus liquid is rich in humic acids, complex organic molecules that provide a slow-release source of carbon. Unlike many humic acids that are derived from leonardite, which are often contaminated with heavy metals, Liquid Humate Plus is an extract derived from fossilized plant matter.

Liquid Humate Plus improves soil texture and water holding capacity, improves soil structure and texture: increasing aggregation and water infiltration, helps break down soil primary minerals, provides an environment and stimulus for microbial activity and serves as natural chelators that organically complex nutrients, making them bio-available to plants

VERMACAST

Vermacast premium worm castings are mother nature's purest form of slow release natural organic plant food produced by earthworms. Derived from a proprietary process and blend of pure organics, vermacast premium worm castings are raised in a controlled vermiculture feeding process and microbial enhancements, resulting in a consistent, bio-diverse, living organic fertilizer and conditioner for safe use in everything that grows. No human, animal or food wastes are used in the process. Vermacast premium worm castings poses no risks to the end user. No odor!

VERMAPLEX

VermaPlex premium low-salt organic fertilizer is derived exclusively from earthworm castings, and, is rich in a proprietary blend of soil microbes and mycorrhizae that rejuvenate the soil and support healthy plants and turf.

Black Sea Kelp, Fish Hydrolysate, Microbac, Liquid Humate Plus, Vermacast and VermaPlex are manufactured by Southern Organics & Supply



PERFORMANCE
NUTRITION®

Performance Nutrition is a division of LidoChem, Inc.