



**KaPrē<sup>®</sup> ExAlt**  
Polyelectrolyte Solution

**UNLOCK** nutrients bound in the soil  
**IMPROVE & MAINTAIN** quality soils  
**REMEDiate** problem soils

# Technology at work for you!

*KaPre® ExAlt melds ancient ingredients with modern technology.*



KaPre ExAlt is a proprietary formulation of **organic acids, polyelectrolytes** and plant-based **surfactants** specifically formulated by Performance Nutrition®, a division of LidoChem®, Inc. to answer the growing need for mitigating and remediating substandard irrigation water and adversely-affected soils in the agriculture and turf Industries.

KaPre ExAlt further utilizes an enhanced natural surfactant capability, extracted from the original humate source material, to carry the KaPre ExAlt molecules into every tight and hard-to-reach space in soil or, as a foliar feed, into the plant leaf structure.



## Mitigate Damage from Poor Water Quality and Remediate Affected Soils

KaPre ExAlt works immediately upon injection into a water stream or placement into the soil by solubilizing and **releasing calcium, magnesium, iron, manganese and phosphorus** and countless other beneficial ions locked into the soil matrix or bound as a mineral compound in aqueous solution.

These newly released ions then attach to the KaPre ExAlt molecules where they are both preserved in solution and made immediately available to clay particles, microbes and plants by simple ion exchange. As the natural ion exchange is improved, a balance of ions is achieved allowing ions in over-abundance such as sodium to be removed from the root zone and flushed into sub-soils or tile drainage systems.

Beneficial ions in lesser abundance are actually held to KaPre ExAlt by forming a complex or chelate thereby turning KaPre ExAlt's mobile polyelectrolytes into more stable nutritional reservoirs and storehouses.

## Supercharge Soil Organic Acid System

KaPre ExAlt's primary components are microbial secretions from ancient composted plant matter that have survived millions of years without change. These concentrated organic molecules can flip an ailing biological or damaged soil system into a super-charged, highly reactive healthy organism.

## Work with Nature to Achieve Optimal Ion Balance

KaPre ExAlt acts as a smart molecule that does not indiscriminately solubilize and strip ions from the soil as a harsh mineral acid will do. Instead, it operates in unison with the natural laws of nature much like a clay particle following the Lyotropic Series of preferential ion attachment,  $\{Al^{3+} > Ca^{2+} = Mg^{2+} > K^+ = NH_4^+ > Na^+\}$ . Quite simply, if ions such as sodium (the least attracted) are in over-abundance in an otherwise healthy ion system, they will have nowhere to attach as displaced by ions such as calcium and magnesium (the greater attracted). A healthful soil chemistry yields a healthy biological system and consequentially healthier plants.

KaPre ExAlt, used with other Performance Nutrition Products, works vigorously to improve the movement of water, air, ions, microbes and nutrients long after application. As recommended with the Performance Soil Treatment™ (PST) program, repeated applications of KaPre ExAlt with Pennamin®, and KaPre RemeD8 enhance and build beneficial soil microbial populations, keeping them active and healthy.

## Fulvic Acid - A Polyelectrolyte

Fulvic Acid is derived from Humate, an ancient plant material. The activity of microbes and enzymes produce fulvic molecules which are soluble at all pH ranges. These molecules solubilize various minerals in the soil creating free nutrients and are useful chelators, nutrient storehouses, and transporters.

*Performance Nutrition extracts and concentrates fulvic molecules into a liquid solution with KaPre ExAlt!*

## safe and effective

soil and water maintenance and remediation  
created for today's harsher environments

### ***KaPre ExAlt from Performance Nutrition Can Help Turn Your Problem Soil into High-Performance Soil***

Performance Nutrition provides an innovative ecosystem management approach to soil and plant health. Higher yields and healthier plants can result when soil is healthy. KaPre ExAlt, when used as a tool in the Performance Soil Treatment program, can help you to:

- Reduce soil compaction
  - Increase soil aggregation
  - Improve drainage
  - Decrease plant diseases
  - Stimulate deeper roots
  - Grow healthier plants
  - Reduce salts in soils
  - Combat black layer
- And is also*
- Safe for workers and non-phytoxic

### ***KaPre ExAlt - for healthy and productive soils***

#### ***Experience the Postive Impact of KaPre ExAlt on:***

##### **SOIL**

- Increase the Cation Exchange Capacity (CEC)
- A nutrient storehouse for plants and microbes
- Improve areas with poor drainage
- Help re-establish proper soil structure
- Help correct mineral imbalances in soil solutions
- Remediate problem-soil areas

##### **NUTRIENTS**

- Increase the movement of nutrients, water and air in the soil
- Optimize availability of nutrients in a tank mix
- Enhance leaf-absorption of foliar-fed nutrients
- Improve use of mineral-bound nutrition
- Increase uptake of nutrients and agro-chemicals

##### **WATER**

- Reduce damage of bicarbonates, carbonates and unwanted salts in irrigation water (and soils)
- Increase efficiency of irrigation water
- Reduce surface water runoff and soil erosion

##### **NITROGEN**

- Improve nitrogen use and efficiency
- Reduce nitrogen loss

##### **PLANTS**

- Improve conditions for lateral rhizome growth
- Increase the survival rate of damaged turf, seedlings, transplants, cuttings, and grafts
- Improve overall plant health through the known and accepted benefits of fulvic and humic acids

##### **AND MORE...**

- Chelate elements like iron and manganese to increase mobility and plant uptake
- Dissolve minerals and increase soluble cations like calcium and magnesium
- Mobilize and attach to mineral-bound anions like phosphorus making them plant-available
- Buffer soil pH by both giving and receiving protons as needed
- Reduce line and equipment scale

**Try these Performance Nutrition® products**

**Castilite™** Patented Nutrient Efficient Fertilizers

**KaPre®** Patented Soil Amendments and Fertilizer Additives

**Krystal Klear®** Patented Chelated Micronutrient Solutions

**LidoQuest®** Patented Micronutrients and Foliar Fertilizers

**NutriSmart®** Patented Eco-Fertilizer & Humate Granules

**Nutrol®** Fungicide, Tank Buffer and Water Soluble P & K Fertilizer

**Pennamin®** Patented Sprayable Amino Acid Products

**Prudent®** Patented Phosphite Fertilizers

**Vibrant®** Patented Premium Foliar Fertilizers

**Z.One®** Patented Soil Amendments and Eco-Stations



Castilite, is a trademark of LidoChem, Inc. KaPre, Krystal Klear, LidoQuest, NutriSmart, Nutrol, Pennamin, Prudent, Vibrant, Z.One, and Performance Nutrition are registered trademarks of LidoChem, Inc.

**PERFORMANCE**  
**NUTRITION**™

Performance Nutrition is a division of LidoChem, Inc.

©2013 LidoChem, Inc.

**LidoChem, Inc.**  
Performance Nutrition Division  
20 Village Court  
Hazlet, NJ 07730  
Ph: 732 888 8000 • Fax 732 264 2751  
[www.performancefertilizers.com](http://www.performancefertilizers.com)  
[info@lidochem.com](mailto:info@lidochem.com)