

## THE CHALLENGE:

Many growers deal with soil salinity problems, which have a major impact on soil and crop performance.

## THE SCIENCE:

Different types of salts can cause various kinds of salinity problems. Proper analysis is required to make appropriate recommendations.

An irrigation water sample, in addition to a soil sample, is beneficial because soil salinity is most often a reflection of the relative salinity of the water.

Total salinity is measured by electro conductivity (EC). EC is a measure of total salts, both good and bad. Crop tolerance to total salinity varies, but in general as EC levels approach 1 (650 PPM Soluble Salts) the potential for a negative impact increases. Excessive salts impede nutrient uptake. Higher EC levels lead to imbalances in soil/water/air ratios, which in turn inhibit plant metabolism. This leads to reduced root growth, reduced crop quality, and reduced yield.

If base saturation sodium exceeds 4% of cations, sodium reduction may be beneficial. Sodium degrades water and air movement in the soil because it deflocculates the soil colloids.

## THE REDOX SOLUTION:

Improve soil/water/air relationships by facilitating the flushing of salts and flocculating soil colloids. Reduce overall salinity and improve soil structure to create a more optimum environment for plant growth. Three Redox products may be beneficial for salinity management:

### SOILEX

Soilex has a high affinity for sodium and the surfactant content facilitates leaching of salts. Use Soilex where total sodium content has exceeded 4% and EC is greater than 1. Apply 0.25 to 1 gallon per acre to the soil monthly or as required.

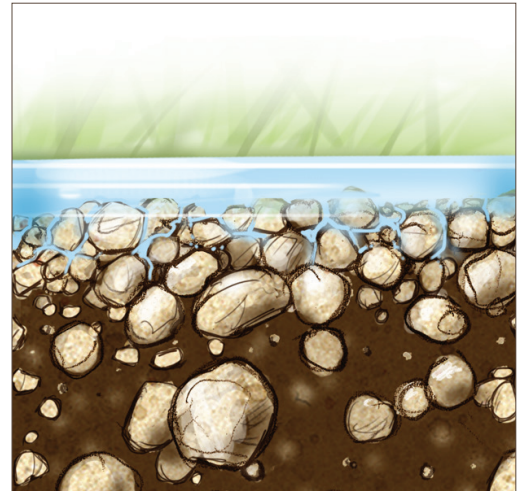
### PENECAL

A reacted plant nutrient product high in surfactant and calcium. PeneCal reduces water surface tension and delivers calcium to micro pore space due to the reacted calcium and surfactant. Use PeneCal where soil EC levels are excessive or where water penetration is inadequate. Apply 0.25 to 1 gallon per acre to the soil every 4 to 6 weeks or as needed.

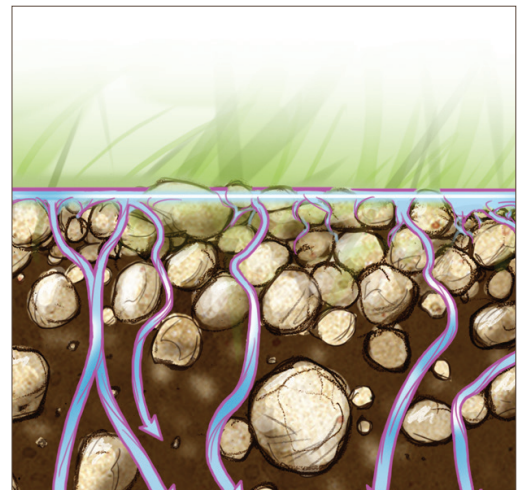
### MAINSTAY CALCIUM

A reacted plant nutrient high in calcium. Mainstay Calcium is efficiently absorbed by plants. Use Mainstay Calcium with PeneCal where increased plant available calcium is required. Apply 0.25 to 1 gallon per acre to the soil during periods of critical calcium requirements or as required.

### BEFORE



### WITH SOILEX



Illustrations © Amino Creative, LLC