

# SAL GON

A concentrated liquid soil conditioner composed of **Carboxylic Acid 34%** and **Lignosulfonic Acid 8%** for the control of salinity and alkalinity, enhance water penetration through crusty soil and cleaning and maintenance of irrigation systems.

## CARBOXYLIC ACID

For water penetration and deeper rooting, SAL GON provides fast and efficient neutralization of hard water deposits and bicarbonates with a proton (+) release ratio of 2:1 compared to Nitric Acid, this more favorable release ratio allows for reduced dosage rates. The 2:1 release of Hydrogen ions (H+) into the root zone (radicular bulb) provides the additional benefit of increasing the assimilation of phosphorus, potassium, and micronutrients in the root zone. The carboxylic acid also dissolves organic matter, bacteria, algae and other dissolved solids in the irrigation system.

## LIGNOSULFONIC

**HIDDEN BENEFIT** - stimulating the microbial rhizosphere. Derived from trees, a natural renewable resource. The main purpose of lignosulfonic is to reduce bicarbonate and alkalinity and acidify irrigation water. Also, part of the structure of lignosulfonic are carbohydrates, sugars, carbon, sulfur, phenol compounds and organic acids. These organic compounds are a source of metabolizable energy for soil microbes in the root zone and many of these compounds are transformed into important intermediates in humus formation.

### TYPICAL ANALYSIS

Lignosulfonate .....	8.0%
Carbohydrates, sugars.....	2.0%
Calcium.....	1.0%
Organic Carbon.....	13.0%
Sulfur.....	1.5%
Other minerals & organics.....	2.9%

## APPLICATION RATES

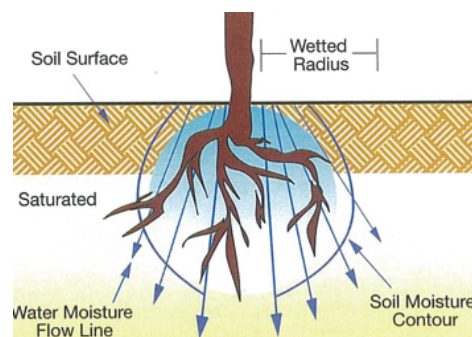
As a soil amendment depending on soil condition, rate range from 2 to 4 quarts per acre (5 to 10 Ltr. per/HA) per treatment.

## WHY STABILIZE IRRIGATION WATER PH?

High pH irrigation water contains significant levels of carbonates, bicarbonates, and other hard water minerals that eventually shift soil pH towards alkalinity, negatively affecting soil microbiology and reducing soil nutrients. Pre-treating irrigation water with SAL GON converts carbonates, bicarbonate and other hard water minerals to soluble minerals that become more available for plants and soil microbes. *(continued on back)*

## SPECIAL FEATURES

- Acidifies irrigation water
- Improves water penetration and soil permeability
- Increases cation exchange capacity
- Reduces bicarbonates and salinity
- Organic carbon source – Improves humus soil content
- Stimulates soil microbial activity
- Increase nutrient availability



Removing high levels of carbonate, bicarbonate, and other hard water minerals associated with scale formation after they have formed require a higher dosage than preventive treatment.

For best results continuous pH adjustment with SAL GON can prevent scale deposits in irrigation lines, nozzles and emitter and helps to dissolve built up scale deposits.

**CONTINUOUS TREATMENT - PRE TREATMENT**

To dissolve scale use 1 to 1.5 liters of SAL GON per 1,000 liters of irrigation water. A pre-treatment test will determine the best rate required to maintain target pH range.

**INTERMITTENT TREATMENT**

The higher dosage rate required to descale existing scale build up works through a mechanism of acidification and complexing of hard water minerals and requires the intermittent dose or slug dose concentration be allowed as much contact time as possible before flushing with water.

Rates as high as 12 to 16 fluid ounces of SAL GON per 100 gallons of water may be necessary when water hardness exceeds 3000 ppm at pH 7.5 and above.

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