Remediator"

Remediator is a liquid formulation of calcium chloride, surfactants, penetrants, and a water soluble polyacrylamide, also known as PAM, that work together in a synergistic manner to create a unique soil conditioner. This solution remedies sodium and/or salt problems, clay and compact soil, soggy soil, and water drainage problems. It also addresses soil erosion and problems associated with poor or reclaimed irrigation water.

Remediator contains a water soluble polymer which is very different from the super absorbent polymer gels that swell when in the presence of water. The water soluble polymer in Remediator does not swell in the presence of water but is dissolved in the water and is left behind, attached to soil particles, when the water evaporates.

BENEFITS OF REMEDIATOR

- 1. Remediator contains a high level of soluble calcium which displaces sodium. By displacing sodium, stable soil particles and pore spaces are created in the soil. The effectiveness of the calcium is compounded by the use of a polyacrylamide (PAM) that attaches to the soil particle and remains in the soil for years, helping the soil structure to resist collapsing. The effect of the PAM is cumulative and long lasting.
 - Releases salts, lowering soil Electrical Conductivity
- 2. Remediator reacts synergistically with residual organic matter in clay soils to achieve stable soil particles which do not form a crust on the surface after rain or irrigation. Water then infiltrates the soil instead of running off into drainage systems. A larger percentage of rain or irrigation water will penetrate the soil surface when it is treated with Remediator.
 - Improves clay soils by displacing sodium, immediately decreasing Exchangeable Sodium Percentage
 - Improves soil drainage
 - Reduces crusting and improves infiltration of water and nutrients
- 3. Deeper root growth is achieved in soil treated with Remediator due to the creation of stable soil particles and pore spaces between these soil particles which store water, nutrients, and air. Roots move easily through these pore spaces.
- 4. Turf and other ground-covers grown in soil treated with Remediator are less likely to form thatch. Roots growing above hard, compacted soil tend to create thatch due to the difficulty of penetrating such hard soil. Improved pore structure in Remediator treated soil allows roots to penetrate the soil much easier.
- 5. Where soils have excess salts, treating with Remediator will improve the ability of irrigation and rain water to flush salts away from the root zone.
- 6. Remediator allows the use of reclaimed water for turf and landscape irrigation without causing increased compaction of clay soil. Damage to plant leaves from the salts in reclaimed water is also reduced.
 - Helps overcome problems associated with reclaimed water usage

OTHER OBSERVABLE BENEFITS OF REMEDIATOR

- Improved plant growth; greater yields of flowers, fruits, and vegetables
- Fertilizers, especially those containing urea, show more effectiveness.
- Fewer soil borne diseases
- Immediate increase in soil CEC
- Less iron deficiency symptoms on leaves
- Nearly 100% survival of transplanted trees and shrubs.
- Easier seedling emergence
- Less soil erosion
- Helps maintain healthy balance of nutrients
- Eliminates standing water

REMEDIATOR SAFETY

Remediator leaves no toxic residues in soil or on plant leaves when it is applied and as it decomposes.

NON-HAZARDOUS

FREQUENTLY ASKED QUESTIONS

Why should I use Remediator?: Remediator softens hard clay and compacted soils, removes salts, improves water drainage and prevents "cracking" during dry spells. With near immediate flocculation, Remediator helps eliminate standing water, creates pore spaces to allow for increased air flow and greater soil water storage for plant use. Plant leaf chlorosis can be minimized and soil erosion on slopes can be controlled. Remediator also helps promote growth when used before seeding, planting or installing new sod.

How Long Will a Treatment Last?: At the recommended application rate it is estimated that monthly treatments for 6 to 12 months will result in a flocculated soil capable of sustaining turf or plant growth for up to 5 years. This is, of course, dependent upon the initial condition of the soil when treatments began. If desired, Remediator can be applied year after year with no adverse effects on turf, plants or soil.

How Does Remediator Compare to Traditional Dry Gypsum?: Even with tilling, dry gypsum will require months and even years to show any benefit to the soil. Dry gypsum requires more time and labor to apply as compared to Remediator. Remediator begins working in the soil immediately upon application.

Is Remediator hazardous to people, pets, environment, building exteriors or hard-scape?: No. Remediator is non-toxic and non-staining. It is composed of mostly organic products.

Remediator

How Does Remediator Compare to Aerifying or Rototilling Soil?: Research has proven that the physical manipulation of soil rarely imparts a benefit to the soil structure and its ability to drain water or support plant life beyond one month. If Remediator is applied immediately after aerifying or immediately before rototilling the beneficial effect of the physical manipulation can be extended up to 3 months.

How is Remediator applied in the landscape?: Remediator is easily applied using fertigation units, tank sprayers or drip systems.

When is the best time of year to apply Remediator?: Remediator is especially effective in spring and summer months or anytime during the growing season.

How often do I need to apply Remediator and how fast can I expect to see improvements?: Most soils only require one yearly application and see immediate improvement within seven days and continued improvement over time. Expect results to last up to two years, though a soil evaluation after a year is recommended. Even the worst clay or sodium-damaged soils see significant improvement after three monthly applications and can be re-mediated within a year.

Can I mix Remediator with liquid fertilizer?: No. Remediator is not compatible with liquid NPK fertilizers. Remediator must NOT be tank mixed with any other product that contains sulfates or phosphates, as it will reduce the effectiveness of Remediator.

Can I apply liquid or granular fertilizer before or after using Remediator?: Yes. Remediator also works very well when incorporated with organic soil amendments.

Can Remediator be used on food-bearing plants and trees?: Yes. Remediator is not hazardous to plant leaves and generally improves the quality of food-bearers.

Is Remediator a concentrate and is it completely water soluble?: Yes. Remediator is very concentrated and should be mixed with water according to the recommended application rates. Remediator is completely water soluble, which is why it can be easily used in sprayer and drip applications and does not cause any build-up in the soil profile.

What happens when it rains or the ground freezes after I've applied Remediator?: No adverse effect. After rain Remediator will move deeper, resulting in continued drainage improvement and penetration. Remediator will not be washed away or broken down by irrigation or rain, nor will it create soggy soil. After freezing, Remediator will reconstitute its original concentration and effectiveness. Remediator has a lower freezing point than water. If Remediator is present, frozen soil will thaw faster by several days and ice build-up can be prevented because snow will melt faster.

How does reclaimed or recycled water work with Remediator?: Same as with fresh water. Because it breaks down salts in the soil, Remediator creates workable growing conditions despite the high saline levels in reclaimed and recycled water.

CALCIUM EQUIVALENTS

• 32 ounces - 200 pounds dry gypsum equivalent

• 2.5 gallons - 1 ton dry gypsum equivalent

1 liter - 95 kilograms dry gypsum equivalent
10 liters - 958 kilograms dry gypsum equivalent

CONTAINS

25% Calcium chloride

1% Polyacrylamide

1% Non-ionic polyols

73% Inert ingredients

APPLICATION RATES

32 ounces per 1,000 square feet in 3 gallons of water 11 gallons per acre

1 liter per 100 square meters in 12 liters of water 100 liters per hectare

Water after applications to move Remediator into the soil. Rates can be doubled or tripled if faster results are desired.

APPLICATION FREQUENCY

Monthly for 6 to 12 months depending on the severity of the sodium build-up. Annual or biannual treatments required for continued maintenance of soil.

APPLICATION METHODS

Broadcast sprayer, hand sprayer or fertigation system. For best results irrigate after application.

TANK MIXING

Remediator is not compatible with products containing sulfates or phosphates. Safe on all warm and cool season grasses, including golf course greens. Can be used on bare ground and ornamental plants. Can be applied any time of year, except when ground is frozen. Available in 2.5 gal., 30 gal. and 55 gal. containers.

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