



AMERICAN SOIL TECHNOLOGIES, INC.

NUTRIMOIST® L

NUTRIMOIST® L is a liquid, injectable soil additive that retains water and nutrients.

- **Injected into established turf, Nutrimoist L aids plant growth by minimizing nutrient and water loss caused by leaching and evaporation.**
- **Nutrimoist L retains water and soluble nutrients in the root zone.**

UNIQUE FORMULA

Nutrimoist L is formulated with Stockosorb® (hydrogel) and a nutrient hydration reagent. This formula was developed expressly for liquid injection of cross-linked (hydrogel) polymer into established turf.

The process of hydration and rehydration of the hydrogel contained in Nutrimoist L continues to deliver moisture and nutrients to the root zone for several years.

*Retains water and nutrients
in the soil*

Reduces nutrient leaching

Improves soil profile

Maintains turf strength

THE NUTRIMOIST L ADVANTAGE

Nutrimoist L maximizes root growth and turf quality by providing constant soil moisture in the root zone, where the turf needs moisture most. Virtually all the moisture and nutrients contained in Nutrimoist L are released to the soil and become available to the roots long before permanent wilt point. The increased “plant available” moisture resulting from application of Nutrimoist L reduces the frequency of required watering and the potential for plant stress during dry periods and during periods of relatively high temperature.

Water and nutrients are absorbed by the fine root hairs of the turf by growing into the gel, or they can be taken up indirectly by slow release from the hydrogel to the surrounding soil by osmotic processes. The hydrogel is not able to withdraw water from plants; therefore, there is no competition between the hydrogel and plants for available moisture.

HOW IT IMPROVES THE SOIL

The hydrogel crystals swell during water uptake, increasing up to 400 times their original weight, changing the soil volume.

The benefits of this action are:

- Reduced soil compaction
- Improved soil porosity
- Increased permeability

By “loosening” the soil, water and nutrients can move into the root zone faster, enhancing root growth.

HOW TO APPLY

The injection of Nutrimoist L into soil can be accomplished with the revolutionary M216 Polymer Injector Machine. Developed and patented by American Soil Technologies, Inc., the M216 injects Nutrimoist L into established turf, directly into the root zone. Over time the hydrogel contained in Nutrimoist L retains and releases absorbed nutrients and moisture.

APPLICATION RATE

Nutrimoist L is applied at a rate of 150 gallons per acre after the product is placed in a water solution. This equates to approximately 30 pounds of hydrogel per acre. In applications with reasonably good irrigation water quality, this application rate will place sufficient Nutrimoist L to store 3,000 pounds or more "available" water per acre and expand to create an equivalent of 400 cubic feet or more of soil-pore space in the top 3 1/2" of the soil.

ENVIRONMENTALLY RESPONSIBLE

Nutrimoist L has a positive environmental profile, due to a few key characteristics. The major component of Nutrimoist L is its hydrogel crystals. With an essentially neutral pH, they break down into base component parts of ammonia, carbon dioxide and water with no residual toxicity. Laboratory tests prove that the Stockosorb hydrogel contained in Nutrimoist L is nontoxic to plants, birds, fish, animals and soil organisms.

Unlike sodium-based hydrogel contained in many other soil amendment products, the potassium-based hydrogel contained in Nutrimoist L will not add unwanted salinity levels to the soil.

For more information, contact:

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Available Water vs. Unavailable Water – Water held between field capacity (the amount of water remaining in the soil after the large soil pores have drained) and permanent wilt point (PWP) is termed "available" water. Water remaining after PWP is termed "unavailable" water. The soil is said to be at permanent wilting point when plants can no longer exert enough force to extract soil water. This point varies as a result of soil type and plant species. For instance, a sandy soil with 10% moisture may be at field capacity, while loam soil at 10% moisture may be near PWP. This is due to differences in surface attraction for water (matrix potential) between different soil particles. Clay soil particles have a much higher surface energy level (CEC) than sand particles and, as a result, clay soil at field capacity can hold approximately 3.9 inches of water per foot compared to 1.1 inches per foot for sand.

There is, however, give and take in this relationship. Because sand has a relatively low surface energy, approximately 55% of water held in sand at field capacity is available to the plant. However, in clay soil, only about 28% of water held at field capacity is available to the plant.

The most ideal soil types in terms of water retention and plant growth for most plants include sandy and silt loams. At field capacity, nearly 70% of the soil water held by these soil types is available to most plants. Through the addition of the hydrogel contained in Nutrimoist L, the properties of a sandy soil, with regard to water-retention capacity and water-release potential, can change to those of a silty loam soil. In sum, the addition of Nutrimoist L to soil can significantly improve soil texture and water-retention capacity. This equates to improved plant vigor and root structure.

Product Handling: Keep Nutrimoist L dry. Direct contact with moisture, which is important to in-ground-product performance, can cause problems during transport or storage. Store the product in a cool, dry place. For application, Nutrimoist L must be mixed with water in strict accordance with the manufacturer's instruction. After it is properly mixed with water, only light agitation is required to keep the product in solution. Nutrimoist L is classified as a mild irritant, so wear gloves and protective eyewear. Nose and mouth protection are also recommended.

Part of the Nutrimoist Turf System

NUTRIMOIST L **NUTRIMOIST H-2.5** **ANCHOR MP** **NUTRIMOIST BIOBLEND 1** **NUTRIMOIST BIOBLEND 2**

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