

# Featuring SoilMix & WaterMix

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## Introduction

Your career or business in the landscape, lawns or the environment is likely what brought you here, but even if you're not in the business, this will provide a great introduction to the basics of Natura Solve. We have included our two core products, some uses and resources for you. We hope that by providing you with tools to add profitably to your income, with less labor, you'll have that spark to try something new that will continue to add to your business, lifestyle and community. The easy-to-use application methods, the all natural, naturally occurring components of the product, will also give you and your customers, piece of mind. We appreciate your business.

Here's to you, and your success.





### <u>Overview</u>

This eBook has been created in response to the growing need for landscapers, lawn care companies and other stewards of the environment, to have a sustainable solution for water and soil renewal. There's come to light an array of issues from our chemical fertilizers and pest control substances, but we aren't going to get the masses to stop using them anytime soon - without viable alternatives. What we have is just better. For chemicals, we help to break the complex chemical bonds and render components inert. For green waste, biosolids, oils & greases, we help to degrade them quickly, coming out with a low volume topsoil in most scenarios.

From greener lawns with far less water, to decreased fertilizers, we're delighted to show you how our easy-to-use, mix-and-spray products can help add to your bottom line, from now into the future, in multiple ways. It's exciting to have something that's both great for the environment - bees love it - and inexpensive. Another great benefit to you and your business long-term, is that you'll need less of our product over time, not more. You'll be able to sustain a service without adding high hard costs. Many of our service providers save a lot of money, right away.

Our products have an immediate impact on soil condition and moisture retention, and long term increases in nutrient levels and vegetation. Once you start using the product, we'd love a review, and to see your treatments, on <u>Google</u>. (<u>https://g.page/r/CYvLj\_Os44KEBM/review</u>)

### How to Use this eBook Best

Using this eBook is easy. Read through it, identify the charts and processes that are right for your needs, and then order the product Online at:

#### http://NaturaSolve.com/buy

or by calling us at 801-661-2206 (US). We're happy to help with any custom needs, or to answer questions about application methods.

The charts and processes included have been developed by other professionals in your arena, in the field, and with the feedback of hundreds of customers.





### Why Renewal?

We have water available, it's just not in good shape. Same with the soil. We realized some years back, right about when investors started to move their money from gold to water - that there may be a problem ahead. Research obviously confirmed and we - as first the Founder and then the team - made the leap into helping people through the finding of products and services that would return our vital resources to us.

We also know that by finding ways to renew water that has been used for whatever purposes, would lead us to an opportunity to renew again and again.

We have products that will help to renew the resources we've been given. By using SoilMix, for example, you'll be helping to not only decrease water and fertilizer needs, you'll be helping to balance out the ecology - the relationship between soil, insects, and plants. That stability provides for more than just the short term benefit, it provides for a solid foundation for our future.

When you work with Natura Solve and our products, you can confidently say that you can help clean up that chemical residue that exists from killing off unwanted pests or removing that oil that spilled out of the mystery bucket most households have, from the soil or the water, while staying beneficial to the natural environment.



## Why Natura Solve?

We enjoy people and nature, progress and innovation - and we aren't afraid of really, really hard work. We think that has value to you as a customer, and to those you serve.





We're based in the US and have teams locally and growing around the globe for support. We can help with technical questions, and have grants and opportunities, tips and news, that we share on our company <u>LinkedIn page</u>.

Natura Solve believes in a clean and sustainable Earth, but we know we won't get there by ignoring who we are as a species. We don't believe in putting things 'back' - we don't even think that's possible. We also don't think it's beneficial. See, we interpret the environment is malleable, capable of changing with climate and other changes, but we also see that the environment has been shaped and altered by industry, and people. We have learned that through fungi, bacteria and natural processes, we can clean some of the worst contamination, enable localized species to thrive and provide for robust and diverse nature. We've stripped a lot of good stuff out of the soil and water, our WaterMix and SoilMix helps to put that good stuff back.

Our team is based in Utah, with labs and production in North Salt Lake.

Our technical team is constantly working on new and better. We look for opportunities to source as close to home as possible and we work within the clean and sustainability community to bring up new innovations in the arena. Hop onto our social media - we're on facebook, Instagram, TikTok, and LinkedIn.

We look forward to seeing your reviews, before and after images and always invite you to submit your feedback directly as well to our CEO at <u>CEO@NaturaSolve.com</u>.

## SoilMix Introduction

SoilMix has a number of agricultural and domestic uses, including lawn care, composting, fungus control, water reduction, fertilizer reduction, and agricultural yield increase.

SoilMix is composed of a unique blend of bacteria that absorbs harmful pathogens while increasing organic matter in soil. After only a few applications, your soil will have greater nutritional density, improved capacity to retain water, and increased humic acid composition. Our product is also safe to use around children, pets, bees and other wildlife.

## SoilMix Uses and Sample Treatment Schedules



The Basic Treatment Cycle consists of two phases: the Build-up Phase and the Enhancement Phase.

During the Build-up phase our goal is to facilitate the growth of healthy bacteria in your soil. Over the course of 6 weeks you'll apply one to three separate treatments of SoilMix to your lawn or garden.

The Enhancement phase is like maintenance. We want to preserve the growth of healthy bacteria in the soil to continue seeing the healthy growth of your plants. Since the bacteria increase the soil's capacity to

retain water, you will be able to decrease watering by 30-50% after the Build-up phase. We

recommend 1 to 3 applications during the Enhancement phase.

#### Instructions (Home & Garden)

Combine 1.5 oz SoilMix with 10 gallons of water (total. Split the product if you are using a smaller hand or backpack sprayer). This will be enough to cover about 10,000 square feet or about a quarter acre.

Use a hand or backpack sprayer to apply the mixture to the lawn, compost or garden.

On the third application, the ratio of SoilMix to water will decrease from 1.4 oz per 10 Gallons to 0.75 oz per 10 gallons.

For sequencing of treatments, see the recommended SoilMix Basic Treatment Cycle Schedule below.

#### Extra Tips:

- After spraying lawns, apply any extra SoilMix to compost pile or gardens. For more potent properties, let your mix sit for up to 24 hours before applying.
- It's best to apply when daytime temperatures are consistently above 50 F.
- Make sure that the soil remains moist at the beginning of treatment cycles so that the bacteria remain as hydrated as possible while they get going.

A small-scale residence (less than % of an acre of landscape) will only need 3.5 ounces of the product properly diluted in water, per year for a maximum of six treatments, minimum of two.





The window of the application is between the last frost of spring and the first frost of Fall. After the first three applications within the initial six-week window, it is recommended to divide the remaining time of the growing, if on a six week schedule.

### Sample Six-Week Treatment Cycle

Week 1	Week 3	Week 5	Growing 1	Growing 2	Growing 3
Mix 3 ounces per 5 gallons to treat 1 acre.	Mix 3 ounces per 5 gallons to treat 1 acre.	Monitor. Mix: 3 ounces per 5 gallons of water for traditional treatments; 6 ounces per 5 gallons for tough soil & climates, then adjust in Week 5 through Growing 2 (mid-grow cycle); 0-2 ounce per 5 gallons for healthy, thriving soil.			Mix 1 ounce per 5 gallons to treat 1 acre.
Reduce water 20%-30%.	Monitor water.	Reduce water 10-50%.		Monitor water.	

## Water Conservation

Our products are valuable tools that can effectively reducing the amount of watering or irrigation required to maintain turf and vegetation for recreational, industrial, commercial, agricultural and residential uses. Data indicates the core bacteria-enzyme product, when mixed and applied with the proper amount of water on a regular schedule, re-establishes or improves (re-conditions) the microbial/biologic activity in soils, particularly in root zones. This re-conditioning improves the water holding potential of the soil, which reduces watering/irrigation scheduled for a specific site. Originally developed as an agricultural supplement, the product also contributes to water





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conservation by improving root structures and associated water and natural nutrient uptake; thicker stems, cuticles and leaves, also reducing the amount of water loss due from evapo-transpiration.

A key item of note is the natural bacteria-enzyme formulation of the product improves ore-establishes naturally occurring microorganisms in soils that contribute to vegetation health and growth. This can reduce or eliminate supplemental chemical fertilizers including nitrogen, phosphorus and potassium (N, P, K). The use of Our Advanced Solution can not only contribute to water conservation, it can also improve surface and groundwater quality by eliminating the need for chemical fertilizer applications. Once you have applied irrigation water to a site on a regular schedule, our experience indicates that the amount of applied product could be reduced over time while still maintaining optimum conditions. Site specific monitoring is required to determine the optimal product application rate for use.

For large turf management areas, product can be applied via a mixing tank which feeds into the existing irrigation system. For small sites that require limited treatment, the product can be applied via hand held sprayers or backpack sprayers. Portable, wheeled high-pressure sprayers (electric or gasoline powered) can also be utilized for smaller, easily accessible sites although the product should be applied under low pressure to allow slow, adequate soil percolation.

### SoilMix Label







## WaterMix Introduction

Similar to our SoilMix, our WaterMix product is a blend of naturally found microorganisms tailored to thrive in aquatic environments. Through the communal interactions of the biology, organic compounds, chemicals, and heavy metals are removed from the water column.

The biological functions of the bacteria and fungi lead to lower dissolved solids, clearer water quality, reduced evaporation rates, cleaner water, reduced or eliminated algae populations, the elimination of pathogens, hydrocarbon elimination, and a healthier environment for other larger organisms to thrive.

#### WaterMix Uses and Treatment Schedules

WaterMix has extensive use opportunities. Depending upon the characteristics of the body of water and desired use may necessitate innovative approaches or additional equipment. This section will delve into some of the uses of WaterMix and offer useful tips or considerations.

One of the original uses, and perhaps the most ubiquitous in the research, is how microorganisms remediate hydrocarbons. Hydrocarbons from C<sub>6</sub> to C<sub>40</sub> are utilized as an energy source for the bacteria and fungi. By breaking apart the bonds and oxidizing the components, oils are "transformed" into gas byproducts. The byproducts can then be used by plants to promote healthy growth. Typical application rates for this treatment are 1 oz of WaterMix to 1200 gallons of water. Dissolved oxygen levels should remain above 1.0 mg/L and we recommend closer to 3.0 mg/L if applicable. The process creates a slightly foam-like material and water that is environmentally safe to discharge.

An easy to witness application process is the prevention of eutrophication in water. Harmful algae growth, such as cyanobacteria, pose health risks for wildlife, native flora, and humans. Simultaneously disrupting recreation, tourism, and the beauty of the environment. Pollution of this sort can be difficult to pinpoint and is often classified as non-point source pollution. While we advocate for the prevention of contaminate discharge, sometimes it is impossible to prevent. When WaterMix is added to a body of water, be it a lake, river, stream, front yard water feature, or a bird bath, the algae are eliminated or greatly reduced. This occurs due to the competition of biology for natural resources. The WaterMix colony utilizes the same resources, typically nitrogen and phosphorus, that algae blooms utilize. The difference is that the WaterMix is much more effective at oxidizing and reproducing. This means that the algae simply can not find a food source and that they do not reproduce, ceasing to be an issue. The WaterMix colony quickly oxidizes the substrates in the body of water and then perishes. With the added benefit of being safe to interact with, colorless, odorless, and tasteless, using WaterMix to treat for algae is swapping out one harmful microorganism, for a colony of helpful or benign microorganisms.



Application for algae is simple, apply over the surface of the water at a ratio of 1 oz to 1200 gallons of water every two weeks algae is present. Algae growth is a surface phenomenon and the circulation of layers is not necessary. Dissolved oxygen should be present in the system since algae growth is occurring but should still be monitored and maintained at above 1 mg/L. After algae has been eliminated from the body of water, dosing can be scaled back to 1 oz to 5000 gallons of water. This should be done every three weeks in order to maintain the suppression of algae. If algae does start to grow back, simply apply the product at the original dose rate. Algae does not grow in cold temperatures, so applying products in the winter may not be necessary to prevent algae. An exciting use for WaterMix is in the processing of wastewater. WaterMix can treat water for organic and inorganic materials, providing an opportunity to use a natural solution to the prevention of pollution.



Wastewater treatment facilities already have systems in place that utilize the oxidation capabilities of biology. Expanding on the performance of the solution, organic materials will be oxidized, meaning nitrogen and phosphorus will be drastically reduced, or removed from the system. Our processing of organic compounds is done much faster and more efficiently than traditional methods.

Aside from the effective removal of nitrogen and phosphorus, WaterMix rectifies other contaminants that wastewater treatment facilities may not be able to treat for. Hormones, chemicals, pharmaceuticals, lipids of varying size, and heavy metals. Current wastewater plants do not have a system to remove pharmaceutical or hormonal compounds from water. This means that small amounts are being put into the water cycle and being compounded as the cycle progresses. While the removal of these compounds takes more time than nitrogen and phosphorus, WaterMix has the ability to break the bonds of these chemicals. Eliminating chemicals from the water that are currently put back into the environment or reused for other purposes.

A great place to use WaterMix is on a farm that has animals. Lagoons are an environmental hazard and pose health risks in some locations. Particularly in North Carolina where lagoons are common, flooding and hurricanes occur often, and there is a close proximity to lagoons. The solution is simple, spray on the lagoon waste and ensure there is proper aeration. Pathogens, chemicals, hormones, blood, odor, and solid organic material will be eliminated or drastically



reduced. A dose rate of 1 oz for every 1200 gallons of water should suffice but there is no overdoing the amount of product. The WaterMix is safe to discharge into the environment.

WaterMix also has the potential to generate additional revenue for farms that have an excess of organic waste. Typically, we suggest maintaining dissolved oxygen above 1 mg/L to maintain an aerobic environment. However, when it comes to lagoons, some farmers may want to generate methane from anaerobic digestion of waste. The process is not overly complicated, reduce oxygen levels in the lagoon, provide a means of capturing the methane that is released, then use or sell the methane as a source of energy. A topsoil and energy source will be produced at the end of the process for farmers to generate additional profit. The same principle can be used in smaller applications and may be an interest to self sufficiency enthusiasts looking for a new project and valuable byproducts from a hazardous material.

Another application of WaterMix is to create bodies of water with lower levels of dissolved solids. By binding to dissolved solids and settling to the bottom of a lake or pond, water clarity will be improved. Making your water feature or lake significantly more clear, without use of chemicals.

WaterMix is used to treat water for organic and inorganic materials. The typical dose rate is 1 oz per 1200 gallons of water but may need to be more or less depending upon contaminant concentrations. WaterMix does not work for treating salt in water or bactericides, such as high levels of chlorine. WaterMix is safe to use around fish and does not harm animals who ingest the water. Dissolved oxygen levels of more than 1 mg/L are required.

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### <u>Research</u>

The research papers and links provided in this section are to help garner your confidence in our approach. The list provided is not a comprehensive gathering of the research that is available on the topic. The researchers in this section are from across the globe and form a community working towards the improvement of our planet through sustainable, environmentally friendly means.

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