SFI
Soil Fertility Institute

BREAKTHROUGH TECHNOLOGY FOR IMPROVING SOIL FERTILITY IN 100 DAYS THROUGH BIOLOGICAL TREATMENT

Let's make our SOIL HEALTHY !

MISSION
SAVE SOIL

The United Nations Sustainable Development Goals (UNSDGs) are a set of 17 global goals adopted by the United Nations in 2015. These goals aim to address pressing social, economic, and environmental challenges facing the world today.

"The 15th goal of UNSD is to Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and **REVERSE LAND DEGRADATION** *and halt biodiversity loss.* **SFI works for the same"**

MISSION SAVE SOIL

KEY ISSUES

- Excess use of Chemical Fertilizers and Pesticides
- Soil has become hard and Viscous
- Over Irrigation & water hardness
- Imbalanced Nutrition of SOIL
- Increase of pH in soil
- High Salinity in the Soil
- Water drainage problem
- Depletion of Ground water Levels
- Decreased Porosity of soil
- Low Productivity of CROPS
- Decrease in Organic carbon of the soil

MISSION
SAVE SOIL

SFI
Soil Fertility Institute

How to improve the SOIL FERTILITY ?

- Soil organic carbon (SOC) is a major contributor to overall soil health, agriculture, climate change, and food solutions.

- It plays an integral part to the formation of soil's organic acids key to soil minerals dissolutions and availability to plants and nutrient leaching.

- Some of the existing ancient methodologies are used to increase organic carbon.

- But, bacterial count is insufficient to recover current soil health conditions which has been depleted to extreme levels.

MISSION
SAVE SOIL

SFI
Soil Fertility Institute

How to improve the SOIL FERTILITY ?

- The microbial biomass consists of mostly bacteria and fungi which decompose crop residue and organic matter in soil.

- This process releases nutrient in to the soil that are available for plant uptake.

-When microorganisms die these nutrients are release in the forms that can be taken up by plants.

- The microbial cell is made up of several elements such as Carbon, Hydrogen, Oxygen, Nitrogen, Sulfur, Phosphorus, Potassium, Calcium, Magnesium and iron.

MISSION
SAVE SOIL

Soil Conditioner

is an organic and non-toxic liquid solution, which is designed to enhance soil properties, including physical, biological, and chemical aspects, within a short period of time.

MISSION
SAVE SOIL

SFI
Soil Fertility Institute

MISSION
SAVE SOIL

- SFI, the Soil Fertility Institute, is an organization based in Pune that has successfully created a **SOIL CONDITIONER**

- This innovative product is designed to enhance soil organic carbon levels within a period of 100 days.

- The SFI soil conditioner draws inspiration from ancient agricultural and soil conditioning techniques, harnessing the power of soil biodiversity and solar energy.

- By targeting the improvement of soil quality, our primary objective is to enhance the overall physical, biological, and chemical properties of the soil, rather than solely focusing on increasing crop yields.

- Recognizing the underlying issues, SFI has devoted its resources and efforts to the advancement of soil conditions through traditional methods.

SFI
Soil Fertility Institute

Ensuring the biodiversity & microbe population within soil particles is crucial, and our product prioritizes their preservation. We have developed a groundbreaking technology that effectively generates and stabilizes carbon in the soil, resulting in improved soil productivity and enhanced product quality.

By combining diverse and beneficial soil-friendly microbes & providing an ample supply of nutrients, we facilitate the development & multiplication of these microbes. Soil Contiditioner brings about rapid transformations in the physical, biological, and chemical properties of soil.

MISSION
SAVE SOIL

SOIL CONDITIONER has the CAPACITY to impact on

SOIL POLLUTION	AGRICULTURAL PRODUCTIVITY	FOOD SECURITY	MALNUTRITION	SOIL HEALTH	AGRONOMY
					

MISSION
SAVE SOIL

SFI
Soil Fertility Institute

BENEFITS

- Improves natural water drainage in soil immediately.
- Reduces pH of soil.
- Improves soil fertility and reduces soil salinity Increases organic carbon within 3 to 4 months
- Soil structure and strata improves within 3 weeks.
- Water holding capacity increases and good aeration is done.
- Good uptake of water and fertilisers
- High increment in white roots
- Soil immunity improves leading to crop immunity
- Increase in production (20-40%)
- Reduction in fertilizers (up to 50%)

MISSION
SAVE SOIL

SFI
Soil Fertility Institute

MAHARASHTRA RAJYA DRAKSHA BAGAITDAR SANGH, PUNE

Research & Training Center
Manjri Farm Laboratory
Pune – 412 307
E-mail: mrdbslab@yahoo.in

Issued to: Shahaji Zhumbar Khothare	**Date : 13 /07/2020** o/w no. mrdbs/lab/69
A/P: Belwandi Kothar	**Lab No - 44 Mob. no. 7448130404**
Tal: Shrigonda	Sample received in Lab. - 11.07.2020
Dist.: Ahamadnagar	Receipt No. -3555
Identification : Gat No. 252 Pomengranete	Date -11.07.2020 Amount -2100/-

SOIL ANALYSIS REPORT

Parameter (Methods)	Unit	Optimum level	Analysis Value	Remark
pH (1:2.5 water) (सामू)	--	6.51 – 7.50	7.42	Optimum
E.C. (1:2.5 water) (विद्युत वाहकता)	dSm^{-1}	< 1.00	0.26	Low
$CaCO_3$ (Titration) (चुना)	%	1.00 – 3.00	14	High
Organic carbon (Walkley & Black) (सेंद्रीय कर्ब)	%	0.41 – 0.60	0.59	Optimum
Primary Nutrient				
Av. N (Alkaline $KMnO_4$ method) (उपलब्ध नत्र)	Kg / ha	281 – 420	139	Low
NO_3 – N (नायट्रेट - नत्र)	ppm	10 – 20	18.33	Optimum
Av. P (Olsens Method) (उपलब्ध स्फुरद)	Kg / ha	14.01 – 21.00	15.79	Optimum
Av. K (NH_4 - Ac) (उपलब्ध पालाश)	Kg / ha	151 – 200	448	High
Secondary Nutrient				
Av. Calcium (कॅल्शियम)	ppm	500 – 1000	5850	High
Av. Magnesium (मॅग्नेशियम)	ppm	251 – 500	905	High
Av.S (Barium Chloride Turbidimetry) (सल्फर)	ppm	11 – 50	11.99	Optimum
Micro Nutrient				
Av. Fe (DTPA Extr. – AAS) (लोह)	ppm	2.01 – 4.50	5.00	High
Av. Mn (DTPA Extr. – AAS) (मंगल)	ppm	1.01 – 2.00	2.08	Optimum
Av. Zn (DTPA Extr. – AAS) (जस्त)	ppm	0.51 – 1.00	0.79	Optimum
Av. Cu (DTPA Extr. – AAS) (तांबे)	ppm	0.21 – 1.00	1.64	High
Other Parameter				
Extr. Na (NH_4 - Ac) (सोडियम)	ppm	< 1000	520	Safe
Boron	ppm	0.3 - 0.5	0.29	Low
Extr. HCO_3 (बायकार्बोनेट)	ppm	180 – 250	107	Safe
Extr. Cl (Mohr's method) (क्लोराईड)	ppm	< 100	70	Safe

Low (कमी) Optimum (योग्य) High (जास्त)

(J.N. Kalbhor)
Laboratory Incharge

ORGANIC CARBON
Before Treatment 0.59

Before Treatment

Soil Analysis

MISSION
SAVE SOIL

SFI
Soil Fertility Institute

After Treatment

Soil Analysis

MISSION
SAVE SOIL

MAHARASHTRA RAJYA DRAKSHA BAGAITDAR SANGH, PUNE
Research & Training Center, Soil, Water, petiole testing Laboratory
Pune Solapur Road Manjri Farm
Pune – 412 307 E-mail: mrdbslab@yahoo.in

Issued to:	**Kothare Shahaji Zhumbar**			**Date :**	26.07.2021
A/P:	Belwandi Khotar	**Lab. No.**	**384**	**Mob. No.**	7448130404
Tal:	Shrigonda		**Sample received in Lab**		23.07.2021
Dist.:	Ahmednagar			**Receipt No**	Manj/122
Identification :		**Date**	23.07.2021	**Amount**	1050/-

SOIL ANALYSIS REPORT

Parameter (Methods)	Unit	Optimum level	Analysis Value	Remark
pH (1:2.5 water) (सामू)	--	6.51 – 7.50	7.71	Alkaline
E.C. (1:2.5 water) (विद्युत वाहकता)	dSm^{-1}	< 1.00	0.38	Safe
$CaCO_3$ (Titration) (चुना)	%	1.01 – 3.00	10	High
Organic carbon (Walkley & Black) (सेंद्रीय कर्ब)	%	1.01 – 2.00	1.73	Optimum
Primary Nutrient				
Av. N (Alkaline $KMnO_4$ method) (उपलब्ध नत्र)	ppm	181 – 220	211	Optimum
NO_3 – N (नायट्रेट – नत्र)	ppm	10 – 20	19.12	Optimum
Av. P (Olsens Method) (उपलब्ध स्फुरद)	ppm	51 – 75	31.95	Low
Av. K (NH_4 - Ac) (उपलब्ध पालाश)	ppm	451 – 600	290	Low
Secondary Nutrient				
Av. Calcium (कॅल्शियम)	ppm	1001 – 1500	5208	High
Av. Magnesium (मॅग्नेशियम)	ppm	501 – 750	1412	High
Av.S.(Barium Chloride Turbidimetery) (सल्फर)	ppm	21 – 50	256	High
Micronutrients				
Av. Fe (DTPA Extr. – AAS) (लोह)	ppm	2.51 – 5.00	2.01	Low
Av. Mn (DTPA Extr. – AAS) (मंगल)	ppm	2.01 – 5.00	2.61	Optimum
Av. Zn (DTPA Extr. – AAS) (जस्त)	ppm	2.01 – 4.00	1.35	Low
Av. Cu (DTPA Extr. – AAS) (तांबे)	ppm	0.41 – 1.00	2.83	High
Other parameters				
Extr. Na (NH_4 - Ac) (सोडियम)	ppm	< 1000	1000	Safe
Boron (Hot Water) (बोरॉन)	ppm	0.3 – 0.5	0.27	Low
Extr. HCO_3 (बायकार्बोनेट)	ppm	180 – 250	53.68	Low
Extr. Cl^- (Mohr's method) (क्लोराईड)	ppm	< 100	24.99	Safe
Ca/Mg	--	5.5 – 6.5	3.69	Low
Ca/K	--	12.5 – 13.5	17.96	High
Mg/K	--	1.5 – 2.5	4.87	High

Low (कमी); **Optimum** (योग्य); **High** (जास्त)

J. N. Kalbhor
Laboratory Incharge

ORGANIC CARBON
After Treatment 1.73

SFI
Soil Fertility Institute

MISSION
SAVE SOIL

CONCLUSION

01

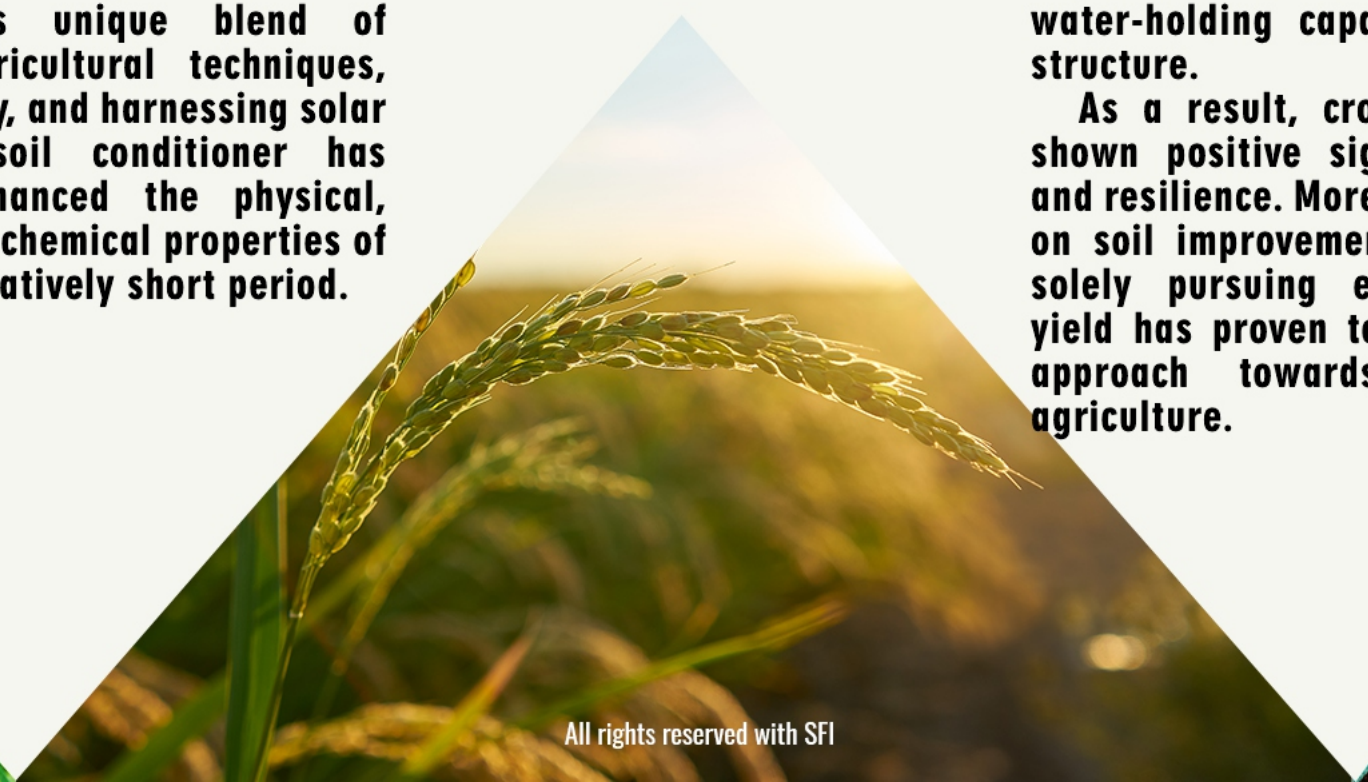
The use of the SFI soil conditioner has yielded promising results in improving soil fertility and health.

Through its unique blend of traditional agricultural techniques, soil biodiversity, and harnessing solar energy, the soil conditioner has effectively enhanced the physical, biological, and chemical properties of the soil in a relatively short period.

02

The increased soil organic carbon content has contributed to improved nutrient availability, water-holding capacity, and soil structure.

As a result, crop yields have shown positive signs of growth and resilience. Moreover, the focus on soil improvement rather than solely pursuing enhanced crop yield has proven to be a holistic approach towards sustainable agriculture.



CONCLUSION

MISSION SAVE SOIL

03

The application of the SFI soil conditioner has demonstrated the potential to address the root cause of soil degradation and pave the way for long-term soil health and productivity.

04

Continued research and implementation of such innovative soil management practices hold the promise of creating a more sustainable and resilient agricultural system for the future.

OUR MISSION

"The mission of the Soil Fertility Institute is to revolutionize soil health and fertility by developing and promoting sustainable agricultural practices. We aim to enhance the productivity and resilience of soils while preserving their long-term sustainability."

OUR VISION

"Our vision is to create a world where healthy soils are recognized as the foundation for sustainable agriculture and global food security. We envision a future where farmers and agricultural practitioners understand the intricate dynamics of soil ecosystems and employ practices that promote soil fertility"

MISSION
SAVE SOIL

Thank You

"We make Farmers DELIGHTFUL"

Soil Fertility Institute, Pune.

Follow us on

Santosh Somnath Latnekar

111, South Block A, Fortune Estate
Aakashwani, Hadapsar, Pune 411028.
9561325565 / 8788570055

E-mail : soilfertility8@gmail.com

MISSION SAVE SOIL

Compiled by

Sachin S Kalbhor
Santosh S Latnekar
Ashish B. Sheth
Vijay Gaikwad