

SUSTAINABLE AGRICULTURE BRIEF

INCREASING SOIL FERTILITY WITH EARTH ALIVE SOIL ACTIVATOR™

Introduction

Soil is the second largest reservoir of carbon on the planet, next to the oceans. It holds four times more carbon than all the plants and trees in the world. But, human activity like industrial farming is causing a decline in soil fertility by exhausting the carbon-rich organic materials that they contain. The Grantham Centre for Sustainable Futures has calculated that nearly 33% of the world's adequate or high-quality food-producing land has been lost due to erosion or pollution in the past 40 years, a rate far that far outstrips the pace of natural processes to replace diminished soil. 40% of the remaining agricultural soil is classed as degraded or seriously degraded. The trend is close to being irreversible without major changes to agricultural practices.

"We are increasing the rate of loss and we are reducing soils to their bare mineral components... creating soils that aren't fit for anything except for holding a plant up."

We aren't quite at the tipping point yet, but we need to do something about it. We are up against it if we are to reverse this decline."

Prof. Duncan Cameron,
Grantham Centre for
Sustainable Futures,
University of Sheffield



Threat to Food Security and Contribution to Climate Change

Troublingly, the decline has occurred at a time when the world's demand for food is rapidly increasing. The UN Food and Agriculture Organization estimates that the world will need to grow 50% more food by 2050 to feed an anticipated population of 9 billion people. Furthermore, as soils degrade they are also losing their ability to hold carbon dioxide, releasing enormous quantities of CO₂ into the atmosphere. When soil is repeatedly disturbed and its carbon is lost into the atmosphere, soil loses its healthy structure, impacting soil's ability to store water and undermining its role as a buffer against floods and a fertile base for plants.



THE GLOBAL GOALS
For Sustainable Development





Solutions through the Adoption of Sustainable Agricultural Practices

Scientists and farmers around the world are pointing out that we can regenerate degraded soils by switching from intensive industrial farming to more ecological methods. As the soils recover, they not only regain their capacity to hold CO², they begin to actively pull additional CO² out of the atmosphere. The Rodale Institute in Pennsylvania says that sequestration rates could be as high as 40%. Regenerative farming also increases crop yields over the long term by enhancing soil fertility and improving resilience against drought and flooding. So as climate change makes farming more difficult, regenerative farming can assure both food security and consistent income for agricultural producers.



"I need not emphasize to you the seriousness of the problem and the desirability of our taking effective action... to conserve the soil as our basic asset. The Nation that destroys its soil destroys itself"

Franklin D. Roosevelt,
32nd US President,
Letter to all State Governors on a
Uniform Soil Conservation Law,
February 26, 1937

Earth Alive Clean Technologies: A Trusted Partner in Sustainable Agriculture

Earth Alive's Soil Activator can be used in regenerative farming practices, offering significant benefits for both agricultural producers and the world's climate. Soil Activator is a microbial biofertilizer that enhances crop growth and productivity by improving the availability of nutrients in the soil. Its beneficial microorganisms work with soil's native fertility and the organic and mineral nutrients added by farmers. It stimulates increased microbial activity in depleted soils and leads to an overall improvement of soil health and fertility. As part of a holistic regenerative farming strategy, it can play an important role in repairing degraded soils worldwide, leading to improved food security while also mitigating CO² emissions. Earth Alive has established global distribution partnerships to help farmers access this groundbreaking technology to restore their lands and guarantee their livelihoods.

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