

Applied
Microbiology
International

Improving Soil Health in the UK: Why a Microbial Approach is Indispensable in Attaining Sustainable Soils

EXECUTIVE SUMMARY



Introduction

Soil health underpins many of the UN Sustainable Development Goals since healthy soils not only help to provide food security; they also increase resilience to climate change, reduce the risk of pathogen and AMR transmission through the environment, boost biodiversity, increase carbon storage and nutrient retention and more. With the global population ever increasing and demands on our soils simultaneously growing, soil health must be given the attention it deserves due to the complex processes and factors it underpins, as ultimately healthy soils are essential for a thriving planet and future.

If the UK Government wishes to stay aligned with, and at the forefront of, global developments and ambitions in relation to soil health, imminent action is needed. This action needs to be based on the recognition of the pivotal role played by microbiology in achieving soil health as current practices – which do not consider microbiology appropriately – are unsustainable.

Applied Microbiology International and the wider microbiology community thereby recommends taking action by:

- Considering the opportunity of taking a nation-wide microbiome approach to soil
- Deploying microbial solutions to improve the UK's soil health, whilst exploring and building the basis for a national microbiome approach

It is essential that the UK's government and industry use the latest scientific evidence to inform its decisions and actions, recognising the long-term benefits that would come from a short-term investment into altering current agricultural practices. We hope this encourages better dialogue between evidence generators and potential end-users, to enable the discovery of effective and viable solutions that will positively impact soil health across the nation and globe, together.

Microbiome Approach

Actions needed to implement and embed a microbiome-based approach to the UK's soils:



To find out more, please scan the QR code.



Interim Microbial Solutions

Whilst exploring and building a microbiome-based approach to soils in the UK, action can still be taken to start improving the nation's soils. The following solutions are available to be deployed now or with minimal investment.



BIO FERTILISER
/ MICROBIAL
INOCULANTS



BIOCHAR



BIOCONTROL



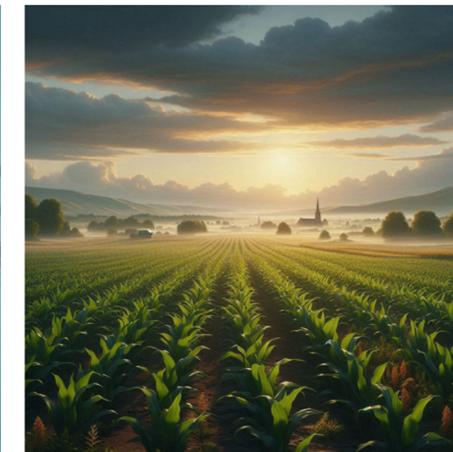
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PLANT DIVERSITY



CROP ROTATION



COVER CROPPING



ORGANIC SOIL
AMENDMENTS