

Healthy soil, healthy future



Soil health is essential for life and impacts directly SDG 1,2 and 3. Goal 6 and 14 by protect drinking water and life below water from dangerous chemicals. Goal 12 by achieving sustainable agriculture and goal 13 for climate action. Goal 15 for biodiversity and ecosystems.

The role of conservational agriculture

Group 5 : Elise S. Kristiansen, Yann P.-A. Lebru, Susanne M. Gjørsum, Manon Sénafé, Ann-Mari Byrkjeland



The soil is the main component to agriculture and is defined as the surface material that covers most land and is composed of inorganic particles and organic matter. The concept of “soil health” has been adopted to measure the general state and quality of soil within an agroecosystem. Its defined as the capacity of the soil to respond to agricultural practices in a manner that sustains both agricultural production and the provision of other ecosystem services.



Pollution

- Different types: nitrates, carbon dioxide and pesticides
- They alter the soil by many ways
- Organic farming is not the perfect solution



Organic materials

- Soil microbiome contains 25% of the biodiversity
- Bacteria, fungi, archaea, protists, and animals control the turnover of this organic matter pool
- Production and uptake of Methane and Carbon dioxide



Soil erosion

- First layer rich in nutrients
- Ability to retain water and air
- Erosion exposes the organic matter to external conditions and degradation



Rotational fields
with gracienc

Cover crop

Agroforestry

More organisms

SOLUTIONS

No-till farming



215.5

