
UNISPICE

SOIL CONSERVATION
IN THE FARMS

World Soil Conservation Day was held on July 7. To commemorate this day, in this article, we will present the main actions that UniSpice's farms are undertaking to regenerate and conserve the soil. But first, let's look at the advantages of managing soil sustainably, as well as the benefits of adopting a conservation agriculture approach.

SUSTAINABLE SOIL MANAGEMENT

Efficient land management practices promote soil health, prevent erosion, and enhance carbon sequestration. These methods ensure the long-term viability of agricultural soil, reducing or eliminating the need for deforestation or the conversion of new lands for agriculture. By preserving existing ecosystems, sustainable soil management helps protect biodiversity, conserve water resources, and maintain natural habitats."

CONSERVATION AGRICULTURE

It emphasizes the preservation of soil health by minimizing its disturbance and maintaining permanent soil cover. This approach helps retain moisture, prevent erosion, and enhance soil fertility. By reducing the need for plowing and tilling, conservation agriculture reduces the release of carbon dioxide into the atmosphere, sequesters carbon in the soil, and mitigates the impact of climate change.

Below are six actions that contribute to soil conservation and improvement on farms, as well as sustained productivity and increased production in the fields:

1. Contour Farming

This practice helps minimize water erosion in the fields due to runoff when it rains.



2. Incorporation of Organic Matter (OM)

The incorporation of vermicompost has helped restore organic matter in the soil, resulting in soils that, in the last 6 year, had less than 1% OM to soils that have increased to values exceeding 2.5% OM. This contributes to the proliferation and biodiversity of microorganisms in the soil and helps retain moisture in the soil for a longer period.

3. Incorporation of Green Manure or Cover Crops

The incorporation of green manure or cover crops has also contributed to the restoration of organic matter into the soil, enhancing the results achieved in soil rejuvenation, the proliferation and biodiversity of microorganisms, and soil moisture retention.


4. Construction of Surface Drains

This practice contributes to proper water management for land drainage, efficiently channeling water and preventing erosion by creating the necessary slope for water to flow slowly, preventing soil erosion.

5. Selective or Minimum Tillage

This practice is carried out in some fields to avoid over-mechanizations and soil compaction, utilizing existing plant material by incorporating it into the soil.

6. Crop Rotation

It's a practice that helps maintain the biodiversity of microorganisms and a balance among different pests and diseases. Because of the type of crop and its growth habits, the roots can reach varying depths, exploring new areas in the fields.

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