

Marta Bertola



KEY-WORDS:
CARBON FARMING • SOIL CARBON
SEQUESTRATION • SOIL BIOGEOCHEMISTRY

PROFILE

I am a second-year PhD student specialized in soil biology and biochemistry.

AFFILIATION

Department of Sustainable Crop
Production (DI.PRO.VE.S)
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LANGUAGES



Mother language



Level B2

HOW TO REACH ME

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Carbon farming

Main research topics

- Carbon farming solutions for perennial cropping systems: miscanthus cultivation on marginal lands.
- Carbon farming solutions for intensively managed agroecosystems: enriching crop rotation and targeted crop residue management.
- Proposing a soil carbon accounting methodology based on proximal sensing.

Main Results

Soil nutrient stoichiometry is a key factor for soil organic carbon accumulation.

Research Contribution

Adoption of regenerative agricultural practices can reduce the rate of atmospheric CO₂ enrichment while having positive impacts on soil quality. A considerable part of the depleted SOC pool can be restored through conversion of marginal lands into restorative land uses, adoption of minimum tillage with cover crops, crop residues incorporation, nutrient cycling including the use of manure/biogas, and other systems of sustainable management of soil resources.

Collaborations

Partner of the projects:
GRACE, ClieNFarms, FarmsForClimate

Why should you care?

The soil C sequestration is a win-win strategy. It restores degraded soils, enhances biomass production and reduces the rate of enrichment of atmospheric CO₂.