Special Issue

Effects of Cover Crops and Mulching on Soil Physical Properties and Nutrient Dynamics in Orchard Systems

Message from the Guest Editor

Soil health is a critical component of sustainable orchard management, influencing tree productivity, resilience, and long-term ecosystem stability. Historically, intensive orchard practices have led to soil degradation, prompting interest in nature-based solutions such as cover cropping and mulching. These practices have gained momentum for their potential to improve soil physical properties, enhance nutrient cycling, and reduce erosion. This Special Issue aims to explore the multifaceted impacts of cover crops and mulching strategies on orchard soil dynamics, spanning diverse climatic zones and orchard systems. We highlight cutting-edge research that investigates the mechanisms by which these practices alter soil structure, moisture retention, microbial activity, and nutrient availability. We invite the submission of original research articles, short communications, and comprehensive reviews that focus on experimental, modeling, or long-term studies assessing cover crops and mulching in orchard ecosystems. Submissions that link soil improvements to plant productivity, carbon sequestration, or climate adaptation are particularly encouraged.

Guest Editor

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