

Pioneering Sustainable Agriculture with PRIMA-SAFE!

Description



ELGO-DIMITRA’s expertise extends beyond its core team of principal researchers and PhD students, involving a wider network of specialized scientists working on various fronts. Four additional researchers from the **Institute of Plant Breeding & Genetic Resources** and the **Soil & Water Resources Institute** join the effort, bringing extensive knowledge in fields essential to PRIMA-SAFE’s ambitious goals. With expertise in plant genetics, soil health, and water resource management, this expanded team is addressing some of agriculture’s most pressing sustainability challenges.

At the **Institute of Plant Breeding & Genetic Resources**, researchers delve into plant genomics and breeding, a crucial element for PRIMA-SAFE. By studying plant responses to treated wastewater, they

aim to identify genetic traits that make crops more resilient to stresses such as drought and salinity. Their work is pivotal to developing crop varieties that can maintain productivity under challenging conditions, directly supporting sustainable agriculture.

Simultaneously, the **Soil & Water Resources Institute** provides expertise in water reuse and soil conservation strategies. Within PRIMA-SAFE, they work to ensure that reused water is safe and that soil biodiversity remains intact, maintaining the balance required for long-term agricultural productivity. Their contributions are instrumental in developing safe water reuse protocols, contributing both to environmental preservation and crop health.

Together, these ELGO-DIMITRA researchers lead **Work Package 3 (WP3)** in PRIMA-SAFE, which focuses on four key objectives:

1. ? **Minimizing Carbon Footprint** by integrating renewable energy into irrigation systems to lessen environmental impact.
2. **? Employing Advanced Genomics and Physiology Tools** to assess how plants adapt to wastewater use, supporting sustainable practices under difficult conditions.
3. ? **Promoting Sustainable Practices** like vegetable grafting to enhance crop resilience in environments relying on water reuse.
4. ? **Enhancing Biodiversity** to support a balanced ecosystem and preserve soil health across irrigated landscapes.

These coordinated efforts within PRIMA-SAFE, including a pilot greenhouse site in Greece, offer crucial insights that can help agriculture in the Mediterranean region adapt to issues like water scarcity and climate variability. ELGO-DIMITRA’s team is not only advancing scientific understanding but is also setting new standards for sustainable agriculture in the region and beyond.



Category

1. Senza categoria

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