

CICLICA PRIMA

Smart Agriculture optimization to
Climate Change Adaptation



PARTNERS:



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What is the focus of AZUD at CICLICA PRIMA?

AZUD is focused on developing innovative solutions for farmers empowering them to optimize the use of resources in crops with a large impact on the fight against climate change. Our mission revolves **consolidating a more sustainable and compatible agriculture with the environment which ensures the social profit.**

Describe the role of AZUD at CICLICA PRIMA

AZUD is actively engaged on the **development of a surveillance and control system tailored for subsurface drip irrigation.** This cutting-edge technology is designed to effectively addresses the water stress faced by crops in the Mediterranean region **enabling farmers to secure sustainable and robust productivity.**

How does AZUD do it?

CICLICA PRIMA experimentally analyzes on *Ceratonia siliqua* (carob) and *Simmondsia chinensis* (jojoba) farms, devising diverse strategies to address **water stress challenges.** Additionally, our efforts aim to enable farmers to operate efficiently, harnessing low-quality water and **non-conventional resources to sustain their operations effectively.**

Which are the expected impacts?

CICLICA PRIMA aims to promote a novel, highly sustainable agricultural **irrigation model that operates effectively both functionally and economically.** The expected impact lies in facilitate the integration of high-efficiency technology into agroecological crop cultivation using subsurface drip irrigation. This approach optimizes water usage, even when coming from non-conventional sources, to **confront the multifaceted effects of climate change that threaten the region.**

What's the importance of this work?

Currently, **many Mediterranean crops remain underutilized**, resulting in substantial economic losses, environmental resource degradation, and pollution.

CICLICA PRIMA is at the forefront of **developing innovative tools for farmers to ensure sustainable productivity while addressing the challenges posed by climate change**.

These solutions prioritize functionality and economic viability, optimizing the utilization of water and other resources.

By implementing **high-efficiency irrigation techniques, such as subsurface drip irrigation (SDI)**, and integrating them with on-farm practices to mitigate the impacts of abiotic stresses, utilizing non-conventional water sources for irrigation, and applying superabsorbent polymers, we can **significantly enhance water productivity**, improve soil health, and reduce our environmental footprint.

Furthermore, it's worth highlighting the **substantial social and economic benefits** that these strategies contribute to achieving.



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