

# CICLICA PRIMA

Smart Agriculture optimization to  
Climate Change Adaptation



## PARTNERS:



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**Principal Investigator of Université de Khemis Miliana at CICLICA  
PRIMA**

**Sami Touil**, PhD Senior Lecturer at University of Djilali Bounaama Khemis-Miliana of Argelia,  
UDBKM.



[linkedin.com/in/sami-touil-376847173](https://www.linkedin.com/in/sami-touil-376847173)

## What is the focus of UDBKM at CICLICA PRIMA?

UDBKM primary focus within this initiative revolves around the implementation of water-saving strategies, with an emphasis on sustainable irrigation practices, mulching techniques, and the deployment of subsurface drip irrigation systems.

What sets our contribution apart is the **incorporation of cutting-edge Nano-biotechnology methods** to address the formidable challenges of salinity and water stress, especially in the context of evolving climate change conditions. To achieve this, we are leveraging innovative and eco-friendly superabsorbent polymers, a novel solution designed to enhance water retention and reduce stress on crops.

Furthermore, we are championing the concept of **biofertilization through the utilization of indigenous mycorrhizal complexes**, a strategy that not only bolsters nutrient uptake but also fosters a harmonious relationship between plants and beneficial microorganisms.

## Describe the role of UDBKM at CICLICA PRIMA

In essence, our role is to **implement and demonstrate best practices** but also to **foster a collaborative and feedback-driven environment** that enables the refinement and optimization of these strategies.

## Which are the expected impacts?

The impact of our work within the CICLICA project encompasses:

- **Introducing Alternative Crops:** We are facilitating the integration of alternative crops into the agricultural system, enhancing its ability to withstand environmental stresses and adapt to the challenges posed by climate change.
- **Capacity Building:** Through tailored training programs in Algeria, we are transferring valuable knowledge to local companies and farmers. This empowers them to explore and develop new business opportunities centered around innovative bio-based products.

## What's the importance of this work?

The significance of our work in the CICLICA project lies in addressing the pressing need for innovative agricultural models in the face of irregular rainfall, prolonged droughts, and increasing anthropogenic pressures in the Mediterranean Basin. These challenges underscore the **urgency of developing sustainable agricultural practices to ensure productivity and conservation in this vital region.**

## How does UDBKM do it?

Our approach entails the replication of project methodologies in Algeria, operating on two distinct levels:

- **UDBKM Demo Site:** We serve as a model surveillance and control system, overseeing the implementation of water-saving strategies and techniques aimed at mitigating salinity and water stress. Through our demonstrative efforts, we showcase the practical application of these strategies, providing valuable insights for broader adoption.



- **Plain Levels:** At the local, ground-level context, our focus shifts to validating the effectiveness of the developed system by actively engaging with end-users. We seek their invaluable feedback, ensuring that the implemented strategies align with real-world agricultural needs and challenges.



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