

16–20 OCTOBER 2023



WORLD  
FOOD  
FORUM

SCIENCE &  
INNOVATION

SCIENCE AND INNOVATION FOR CLIMATE ACTION

# *Joint Talk CREA-CNR on Sustainable Water Management in Agriculture*

Thursday 19 October 2023 | 11.15 - 11.45 | FAO ATRIUM

*The CREA-CNR Joint Talk addresses the pivotal issue of sustainable water management in agriculture.*

*The session underscores the significance of designing and managing pressurized irrigation systems, highlighting a collaboration between Italy and Cape Verde. Technical guidelines are introduced for the integration of a modern irrigation methodology, considering both agro-economic and engineering aspects as well as cost-benefit analyses and environmental impact assessments.*

*Lastly, innovative solutions for improving water management in the face of climate change are discussed, including irrigation support techniques and the use of the Bioristor in vivo sensor for sustainable cultivation in Burundi.*



**Consiglio Nazionale  
delle Ricerche**



Consiglio per la ricerca in agricoltura  
e l'analisi dell'economia agraria

CREA and CNR - FAO Partners of the MoU with the Italian Research Institutions

# PROGRAM

11:15 CREA:

DESIGN AND MANAGEMENT OF A PRESSURIZED IRRIGATION DISTRIBUTION SYSTEM: A JOINT EXPERIENCE BETWEEN ITALY AND CAPE VERDE

**Raffaella Zucaro** and **Filiberto Altobelli**

*Presentation of Technical Guidelines for the setting up of an integrated methodology of a modern irrigation system:*

- a. considering the agro-economic-engineering aspects and cost-benefit analysis and environment impact assessments.*
- b. possible pathways to increase irrigation water productivity at the scheme level accounting for the interaction among the different steps of the water distribution chain.*

11:30 CNR:

SOLUTIONS TO IMPROVE WATER MANAGEMENT UNDER CLIMATE CHANGE

**Antonello Bonfante** and **Michela Janni**

- a. Irrigation support techniques applied in a DSS dedicated to irrigation optimization (case studies on maize in Italy and Israel)*
- b. a new approach based on the Bioristor in vivo sensor:*
  - i. viticulture irrigation and preservation of berries quality*
  - ii. solar and ecofriendly irrigation system improving the sustainability of tomato cultivation in Burundi*

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## **For more information:**

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## **For registration:**

<https://www.fao.org/science-technology-and-innovation/science-innovation-forum-2023>