

INTERNATIONAL SEMINAR

THE FUTURE OF CONSERVATION AGRICULTURE IN MEDITERRANEAN AREAS: TECHNICAL AND SCIENTIFIC ADVANCES, POLICY SUPPORT AND FARMER ORGANISATION

Zaragoza, Spain, 8-9 March 2024

Background and objectives

Conservation agriculture (CA) is a cropping system based on three principles: (1) minimum tillage and soil disturbance, (2) permanent soil surface cover with crop residues and cover crops and (3) crop diversification (rotation and intercropping). In Mediterranean conditions, CA could reduce the risk of soil quality degradation and improve nutrient and water use efficiencies, while providing a more stable yield, supporting smallholder agriculture. However, the rate of adoption of Conservation Agriculture is still low and very heterogeneous among and within Mediterranean countries. Apart from the need of adjustment and adaptation of the technical practices to local and farm conditions, that is solved in many cases through applied research and development, other barriers of socio-economic and cultural nature hampering a faster expansion of conservation agriculture may be overcome through active farmer organisation and public policy support.

CAMA (Research-based participatory approaches for adopting Conservation Agriculture in the Mediterranean Area, www.camamed.eu) is a 4-year research project of the EU PRIMA programme, integrated by 13 partners from 8 EU and N African countries. The main aim of CAMA has been to understand and overcome the barriers that prevent the adoption of CA in the Mediterranean basin. A multidisciplinary and participatory research has been deployed for 4 years since 2020, having tested and validated new and adapted techniques of CA in the field, measuring their positive effects on soil properties and conservation, water use efficiency and crop development, and seeking to identify socioeconomic, technical and agronomic constraints for CA adoption.

This International Seminar will be the chance to oversee and discuss latest advances on research applied to Mediterranean conservation agriculture, as well as to exchange experiences and visions on the future of this cropping system. The specific objectives are twofold:

- To present the results, recommendations and conclusions of the 4-year research project CAMA on conservation agriculture technical practices (crop rotations, fertilisation, cover and residue management, plant material adaptation and breeding, etc.), on the effects and benefits on soil and water resources and on farmers' adoption factors.
- To discuss the factors influencing Mediterranean farmers' adoption of conservation agriculture and how to improve it, bringing together the experience of stakeholders from the Mediterranean basin countries on public policy support and farmer organisation.

Organisation and venue

The Seminar is organised by CAMA project through the Mediterranean Agronomic Institute of Zaragoza/International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM Zaragoza, Spain), the Research Station Aula Dei of the Spanish National Research Council (EEAD-CSIC) and the University of Lleida (UdL), with the collaboration of the CAMA project Coordinator (CREA, Italy) and all the project partner institutions.

The Seminar is fully supported by the CAMA project budget, from the EU-PRIMA programme of Research in Innovation in Mediterranean Agriculture.

The language of the Seminar will be English. English-Spanish-French simultaneous interpretation will be provided.

The Seminar will be held at the [Mediterranean Agronomic Institute of Zaragoza](#), Av. Montañana 1005, 50057 Zaragoza, Spain.

Participation and registration:

The first day of the Seminar will be open to in-person participation (limited places) and on-line attendance. The field visit of the second day is restricted to invitation only.

Please register [here](#) for in-person or on-line participation.

PROGRAMME (draft)

Day 1 (8 March 2024)	Timeline
Opening and introductory session. - Opening: • Ana Rodríguez (Director of Agricultural productions and market, Ministry of Agriculture, Spain) • Raul Compés (Director, CIHEAM Zaragoza) • Michele Rinaldi (CAMA project Coordinator, CREA, Italy) - CAMA project general presentation: 4 years of research in Mediterranean Conservation Agriculture. Michele Rinaldi (CREA, Italy) - Invited keynote: Carbon farming in Mediterranean agriculture. María Dolores Gómez (Univ. Cartagena, Spain)	09:30-10:45
<i>Coffee break</i>	10:45-11:15
Conservation Agriculture in Mediterranean Areas: CAMA project scientific advances and main recommendations. Moderated by Michele Rinaldi (CREA, Italy) - Agronomic practices and participatory innovations in the field. Mathieu Marguerie (Arvalis, France) and partners - Newly-bred legume cultivars for rotations in drought-prone regions. Paolo Annicchiarico (CREA, Italy) and partners - Water conservation in conservation agriculture rainfed systems. Carlos Cantero-Martínez (University of Lleida, Spain) and partners - Soil conservation and quality in conservation agriculture. Jorge Alvaro-Fuentes (EEAD-CSIC, Spain) and partners. - CAMA dissemination and training experience. Antonio López-Francos (CIHEAM Zaragoza) - Adoption of Conservation Agriculture in the Mediterranean region: factors and barriers/difficulties. Gabriela Cruz (APOSOLO, Portugal) and partners	11:15-13:30
Lunch	13:30-15:00
Round table and debate: Increasing Conservation Agriculture adoption from policy support and farmer organisation experiences. Moderated by Carlos Cantero-Martínez (Univ. Lleida, Spain) - Spain: CAP eco-regimes on direct seeding and on crop rotations. Paz Fentes, Deputy Director General on Field, industrial crops and olive oil, Ministry of Agriculture. - International: Experiences on conservation agriculture in dry areas. Aymen Frija (ICARDA, Tuinsia-Argelia). - Spain: the experience of the Aragonese Association of Conservation Agriculture. Carlos Molina (AGRACON, Spain). - Algeria: Tarik Hartani (Director of ENSA, Head of National Commission of improving cereals and legumes) - France: TBD - Greece: Kostantinos Tertivanidis (Director of Agricultural Economic and Veterinary Affairs, Region of Central Macedonia) - Italy: Luigi Trotta (Director of the Department of Agriculture, Rural and Environmental Development, Apulia Region) - Morocco: Yakhkef Bakkali (Director of Agricultural Engineering Advice at the National Office of Agricultural Advice, Ministry of Agriculture) - Portugal: Eduardo Diniz (Director of the Planning, Policies and General Administration; Ministry of Agriculture and Food) (TBC) - Tunisia: Mohammed Ali Ben Romdhane (Deputy Director - Cereals, DG of Agricultural Production, Ministry of Agriculture).	15:00 -18:15
Conclusions and close of the Seminar	18:15-18:30

Day 2 (9 March 2024)	Timeline
Full day of field visit Visit to farms and plots where Conservation Agriculture is tested and implemented for a long period, representative of conditions of the Aragon Region semi-arid cropping systems, both rainfed and irrigated.	09.00-18.00 (tentative)

Researchers who have contributed to the CAMA project results		
CREA (Council for Agricultural Research and Analysis of the Agricultural Economy), CAMA Coordinator	Italy	Michele Rinaldi Paolo Annicchiarico Luciano Pecetti Carmen Manganiello Mirko Castellini Danilo Marandola Manuela Pascarelli
AGROMNIA, SC	Italy	Giuseppe D'Alessandro Michele Guglielmi
ARVALIS, Technical Institut	France	Mathieu Marguerie Stephane Jezequel Francesca Degan Clémentine Bourgeois Olivier Deudon
CIHEAM- ZARAGOZA (Mediterranean Agronomic Institute of Zaragoza)	Spain	Antonio López-Francos Joaquín Balduque
UNIVERSITY OF LLEIDA	Spain	Carlos Cantero-Martínez Jorge Lampurlanés M. Concepción Ramos Joan Piñot
CSIC-EAAD (Estación Aula Dei, National Research Council)	Spain	Jorge Álvaro Fuentes Victoria Lafuente
APOSOLO (Portuguese Association for mobilization of Soil Conservation)	Portugal	Gabriela Cruz Ana Paiva Brandão
INIAV (National Institute of Agricultural and Veterinary Research)	Portugal	Ana Sofia Almeida José Coutinho Benvindo Martines
HAO-DEMETER (Hellenic Agricultural Organisation – Research agency)	Greece	Thomas Gitsopoulos Dimitris Katsantonis Eleni Tsaliki Thanos Ragkos
INRAT (National Institute of Agronomic Research of Tunisia)	Tunisia	Mohamed Annabi Haithem Bahri Sourour Abidi Mohsen Rezguig
APAD (Association for Sustainable Agriculture)	Tunisia	Salah Lamouchi Hatem Cheikh M'Hamed
ENSA (National Higher Agronomic School)	Algeria	Mourad Latati Meriem Laouar
INRA (National Institute of Agronomic Research of Morocco)	Morocco	Rachid Moussadek Imane Thami Alami Abdelaziz Bouizgaren Oumaima Ibenhalima