The workshop "Sustainable Weed Management in Mediterranean Cropping Systems" European Weed Research Society 4 - 6 December 2024 Antalya, Turkey



# Sustainable Weed Management in Mediterranean Cropping Systems

# Workshop of the EWRS working groups "Weed Management in Mediterranean Cropping Systems" and "Herbicide Resistance"

Programme

Many thanks to our sponsors





Dear Colleagues,

We invite you to the meeting of the EWRS working groups "Weed Management in Mediterranean Cropping Systems" and "Herbicide Resistance". The meeting will be held from 4 to 6 December, 2024 in the Concorde de Luxe Hotel, Antalya, Turkey.

### SCIENTIFIC PROGRAMME

The aim of this meeting is to review the different strategies of weed control in order to mitigate the evolution of weed resistance evolution to herbicides and improve the cropping systems sustainability. The Workshop is aimed at students, Ph.D. candidates, as well as established scientists. Despite the workshop focuses specially on herbicide resistance in the Mediterranean Area, researchers working with resistance and its management in other parts of Europe are also warmly welcome.

The workshop will be divided in 5 parts:

- 1. An introduction and an Invited Speakers Session
- 2. A session dedicated to Herbicide Resistance
- 3. A session dedicated to short oral presentation of posters
- 4. A sessions dedicated resistance status in different countries and the International Herbicide-Resistant Weed Database
- 5. A sessions dedicated to Weed Control and Herbicide Use
- 6. A session dedicated to Integrated Weed Management
- 7. A wrap up discussion aiming to draw conclusions and select the frame to write a review article which will be submitted to Weed Research.

## ORGANIZERS

Prof. Dr. Hüsrev Mennan (Ondokuz Mayis University, Turkey)

Dr. Maor Matzrafi (Agricultural Research Organization - Volcani Institute, Israel)

Dr. Roland Beffa (Senior Scientist Consultant, Germany)

Dr. Katerina Hamouzova (Czech University of Life Sciences Prague, Czech Republic)

Dr. Alicia Cirujeda (CITA, Saragossa, Spain)



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#### PROGRAMME

**TUESDAY 3rd DECEMBER** 7:00 PM Dinner for Participant already present in the venue.

#### WEDNESDAY, 4th DECEMBER

9:00 – 9:30, Welcome – Aims of the Workshop and Get together (Lead by Katerina Hamouzova, Alicia Cirujeda, Hüsrev Mennan, Roland Beffa).

9:30 – 12:00, Session 1. Invited Speakers / Zoom Session (ILead by Hüsrev Mennan).

9:30-9:50	<b>Maor Matzrafi</b> . Effect of herbicides on the management of the invasive weed <i>Solanum rostratum</i> Dunal (Solanaceae).
9:50-10:20	Joel Torra. Herbicide Resistance in Europe. Focus on the Mediterranean area.
10:20-10:35	Coffee break
10:35-11:05	<b>José María Montull</b> . The eternal debate on the use of optimized herbicide doses and its implications for precision agriculture: the case of IPMWise.
11:05-11:35	<b>Andrew Ward</b> . Crop Life International. Stewardship approach to manage pesticides including resistance.
11:35-12:00	Questions / Discussion

12:00 – 13:30, Lunch

13:30 – 15:40, Session 2. Herbicide Resistance (Lead by Katerina Hamouzova).

13:30-14:00	<b>Francesco Vidotto</b> (Invited). Herbicide resistance in Italian rice cropping systems.
14:00-14:20	Hüsrev Mennan. Multiple resistance to glyphosate and ALS inhibitors in palmer amaranth ( <i>Amaranthus palmeri</i> ) identified in Turkey.
14:20-14:40	<b>Katerina Hamouzova</b> . Herbicide-resistant crop technology drives <i>Amaranthus retroflexus</i> resistance to foramsulfuron + thiencarbazone- methyl.
14:40-15:00	<b>Zakia El Mastouri</b> . Resistance to ACCase and ALS-inhibiting herbicides detected in targeted sampling of <i>Lolium rigidum</i> (rigid ryegrass) populations from cereal crops in Morocco, Algeria and Tunisia.
15:00-15:20	<b>Josef Soukup</b> . Monitoring of herbicide resistance in the Czech Republic: ALS and ACCase resistance is on the rise.
15:20-15:40	<b>Alicia Cirujeda</b> . Herbicide resistance to nicosulfuron and glyphosate of some Amaranthus palmeri popularions of Aragon (Spain).



15:40 – 16:10, Session 3. Poster presentation (Lead by Alexandra Savic).

15:40-15:45	Poster 1. <b>Ramavath Nagasai Vardhan Naik</b> . Effect of nutrient and weed management practices on growth and yield of transplanted hybrid rice ( <i>Oryza sativa</i> ).
15:45-15:50	Poster 2. <b>Clara Jiménez</b> . Emerging threat: glyphosate resistance detected in an <i>Amarathus viridis</i> population from Spain.
15:50-15:55	Poster 3. <b>Darko Jovanovic</b> . Adjuvant and nozzle impact on nicosulfuron efficacy in weed control in corn.
15:55-16:00	Poster 4. <b>Roberto Figueroa</b> . Weed management in Chilean forestry plantations does not represent a risk for honeybees.
16:00-16:05	Poster 5. <b>Marco Gentili</b> . Rethinking weed management: harnessing the dual role of weeds for sustainability.
16:05-16:10	Poster 6. <b>Silvia Fogliatto</b> . Weed control efficacy of pelargonic and acetic acid as alternative herbicides for stale seedbed termination.
16:10-16:25	Coffee break

16:25 – 17:50, Session 4. Resistance status in different countries and the International Herbicide Resistant Weed Database (Lead by **Milena Simic**).

16:25-16:30	Greece – Ilias Travlos
16:30-16:35	Turkey – Akdeniz Can
16:35-16:40	Germany – Roland Beffa
16:40-16:45	Czech Republic – Katerina Hamouzova
16:45-16:50	Italy – Francesco Vidotto
16:50-16:55	Serbia – Milena Simic/ Milan Brankov
16:55-17:00	Spain – Alicia Cirujeda
17:00-17:05	Israel – Maor Matzrafi / Baruch Rubin
17:05-17:10	Chile – Roberto Figueroa
17:10-17:15	India – Ramavath Nagasai Vardhan Naik
17:15-17:20	Pakistan – Rahamdad Khan
17:20-17:50	International Herbicide-Resistant Weed Database – Roland Beffa

17:50 – 18:40, Day 1 General Discussion. Take home messages.

19:00 – 20:30, Dinner



### THURSDAY, 5th DECEMBER

9:00 – 12:00, Session 5. Weed Control and Herbicide Use (Lead by Alicia Cirujeda).

9:00-9:20	Mehmet Nedim Dogan. Chemical control options for palmer amaranth (Amaranthus palmeri) in Turkey.
9:20-9:40	Milan Brankov. Optimization of herbicides use: the role of adjuvants.
9:40-10:00	Okan Guzel. Investigation of herbicide usage in drip irrigated rice Fields.
10:00-10:20	Roberto Figueroa. Drone herbicide spraying requires limited safety buffer.
10:20-10:35	Coffee break
10:35-10:55	<b>Bór Ali Riza</b> . New herbicides for controlling ALS inhibitors palmer amaranths ( <i>Amaranthus palmeri</i> ) in maize.
10:55-11:15	<b>Rahamdad Khan</b> . Herbicidal control of weeds in hybrids corn in northwest region of Pakistan
11:15-12:00	Questions / Discussion. Take home messages.

12:00 – 13:30, Lunch

13:30 - 18:00, Excursion

The excursion the Bati Akdeniz Agricultural Research Institute (BATEM) located in Antalya. BATEM focuses on the development of sustainable agricultural practices, the conservation of plant diversity, and the progress in specialized crop research, especially within the Mediterranean region. The institute conducts extensive research in fields such as horticulture, field crops, medicinal and aromatic plants, and plant protection, with a commitment to support both national and international agricultural needs. In addition to the citrus orchards, the field visit will include the observation of various aromatic plant areas, including ginger, turmeric, stevia, thyme, and myrtle, sage and passiflora. Weed management in these cultures is done without the use of chemicals and offers the opportunity to observe alternative models of weed control.

Then it will be the opportunity to visit the old city of Antalya.

19:00 – 20:00, Dinner



#### FRIDAY, 6th DECEMBER

8:30 – 12:30, Session 6. Integrated Weed Management (Lead by Francesco Vidotto).

8:30-8:50	<b>Esra Cignitas</b> . The effects of different weed management methods on the yield of sage.
8:50-9:10	Kuru Halil Trad. New control options for management of ALS and ACCase
	resistant Echinochloa spp. in rice.
9:10-9:30	Milena Simic. Integration of cultural and chemical measures for successful
	weed control in maize.
9:30-9:50	Elena Diego Barranco. Organic mulches suppress annual weeds but
	bermudagrass thrives under them in Mediterranean vineyards.
9:50:10:05	Coffee break
10:05-10:25	Aleksandra Savic. Ambrosia trifida against Ambrosia artemisiifloia: will
	crops be invaded by a stronger competitor?
10:25-10:45	Charul Chaudhary. Optimizing Weed Management and Herbicide Efficacy
	in Wheat: Influence of Rice Residue Mulch and Herbicide Application
	Method in zero-tillage systems.
10:45-11:05	Roberto Figueroa. Cover crops shifted weed communities in Chilean Cherry
	and Vineyards soils.
11:05-11:25	Roland Beffa. How Genomics Can Contributes to Improve Modelling to
	Predict Resistance Evolution in the Fields.

11:25 – 12:30, Session 7. Meeting wrap up. Main take home messages. Meeting follow-up (Lead by Maor Matzrafi, and Roland Beffa)

12:30 – 13:30, Lunch

We look forward to meeting you in Antalya!

Warm regards,

Organizers,

Hüsrev, Maor, Roland, Katerina, Alicia.