



AGRICULTURAL UNIVERSITY OF ATHENS  
ΓΕΩΠΟΝΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ



## European Weed Research Society



### 3<sup>rd</sup> Announcement

#### ADVANCED WORKSHOP On Weed Mapping as a Tool in Plant Ecology and Weed Management

This event is organized by the Weed Mapping Working Group and will be supported by the European Weed Research Society (EWRS) in cooperation with two Universities, the Agricultural University of Athens (AUA) and the Czech University of Life Sciences Prague.

**16 - 18 September 2019**

**Venue: Mediterranean Agronomic Institute of Chania (MAICH)  
Crete, Greece <http://confer.maich.gr/>**

**Arrival date on September 15th, departure date on September 19th.**

Dear Colleagues,

We are pleased to give you some general information on the “Advanced Workshop on Weed Mapping as a Tool in Plant Ecology and Weed Management” which will also regularly appear on the working group web site: <http://www.ewrs.org/weedmapping/default.asp>. You are invited to express your interest by sending your registration via the web site: [https://confer.maich.gr/registrations/weed\\_2019](https://confer.maich.gr/registrations/weed_2019).

- The **aims** of the Advanced workshop are, PhD and Post doc students, experienced “*weed*”, “*plant ecology*”, “*GIS*” scientists and a limited number of professionals,
  - i. to create a forum where they will be involved exchanging results, experiences, and information on the technical and scientific progress in weed mapping science and in the innovative mapping tools as part of digital farming and
  - ii. to establish collaboration based on new contacts and networks

#### ● **Scientific programme**

The advanced workshop aims to be informal and so stimulate as much discussion as possible among participants. We will combine plenary scientific sessions with oral and poster

presentations, practical training on the field using novel tools in weed mapping and training in class on weed maps production using software and geodatabase. Below is the list of topics:

- Phytosociology and weed science
- Spatial issues in weed distribution and weed shifts
- Novel detection tools in weed mapping
- Mapping of invasive weeds / rare weeds
- Data processing
- Spatial interpolation, geostatistics and regional mapping
- Advances in precision weed mapping. Automatic systems for weed monitoring
- Transfer of field data into available software and databases
- State-of-the-art of SDSS (spatial decision support systems)

### **Organizing Committee**

Professor Falia Economou ([economou@aua.gr](mailto:economou@aua.gr)), Agricultural University of Athens

Dr. Hansjoerg Kraehmer ([Kraehmer-Hofheim@t-online.de](mailto:Kraehmer-Hofheim@t-online.de)), Former EWRS President

Michaela Kolarova ([mkolarova@af.czu.cz](mailto:mkolarova@af.czu.cz)), Assistant Professor, Czech University of Life Sciences Prague

Dimitra Doulfi MSc Agronomist, Agricultural University of Athens [dimdoulfi@yahoo.gr](mailto:dimdoulfi@yahoo.gr)

### **Registration fees: 350-€.**

The fees include accommodation for 4 nights at MAICH premises with breakfast, welcome party, lunches, informal dinner and visit to vinery.

### **How to reach Chania and the Conference center: <http://confer.maich.gr/info/travel.html>**

Chania is a famous holiday resort with various options to reach from European countries. Please check the connections at your travel agencies and airlines.

### **Scholarships for young weed scientists:**

Scholarships will be available for MSc, PhD students (after evaluation from the Organizing Committee). Candidate should submit, the abstract, a cv and a letter of support from the supervisor clearly stating agreement to provide matching funds. Application should be e-mailed with the abstract to the organizer committee. The scholarships will be awarded according to the EWRS rules.

## **FINAL PROGRAM**

### ***Sunday Sept 15th***

- Arrival
- 19.30 Afternoon and evening: Registration
- 20.00 Welcome drink and dinner

### ***Monday Sept 16<sup>th</sup>***

- 8:30 am to 9.00 am registration
- 9:00 am Welcome address and general announcements

- MAICH Director **Dr. George Baourakis**
- ELGO Director (Institute of olive tree, subtropical plants and viticulture) **Dr. A. Doulis**

- 09:30 – 10:30 am **Session 1 - H. Kraehmer**  
*Introductory and overview presentation*
- 10:30 am Break
- 11.00 – 12:30 am **Session 2 - G. Economou- M. Kolářová**  
*Classical weed survey methods*
- 11:00 – 11:30 am Choosing weed survey fields – learning from the past- **J. Salonen**
- 11:30 – 12:00 am Classical weed survey methods: a case study on the occurrence of archaeophytes in agrophytocoenoses in the Czech Republic- **M. Kolarova**
- 12:00- 12:20 pm Proposal for the establishment of “Weed Observatory” in Cretan citrus orchard **G. Economou**
  - 12:20 – 12:30 pm Giving effective feedback on the presentations. Aspects and comments **by the Session organizers**
  - 12:30 pm Lunch
- 02:00 – 03:30 pm **Session 3 - H. Eizenberg – V. Alchanatis**  
*Advances in precision weed mapping. Automatic systems for weed monitoring*
- 02:00– 2:40 pm Introductory speech by the session organizers
- 02:40- 03:00 pm Sensor- assisted weed identification as a crop management- **M. Tempel**
- 03:00– 03:20 pm The use of UAV for mapping and analyzing weed distribution in onion fields- **G. Rozenberge**
  - 03:20 – 03:30 pm Giving effective feedback on the presentations. Aspects and comments **by the Session organizers**
  - 03:30 pm Break
- 04:00 – 05:30 pm **Session 4 - R. Lati**  
*Site specific weed management*
- 04:00– 4:20 pm Introductory speech by the Session organizer
- 04:20- 4:40 pm Efficacy and selectivity evaluation of a new mechanical in- row weed control method- **E.Asaf**
- 04:40- 05:00 pm Utilize the potential herbicide savings using weed maps, when the sprayers have limited capabilities- **G. Somerville**
- 05:00- 05:20 pm Development of Integrated weed management for *Moringa oleifera*- **I. Shulner**
- 05:20- 05:30 Giving effective feedback on the presentations. Aspects and comments **by the Session organizer**

***Tuesday Sept 17***

- 8:45 – 10:00 am – **Session 5 -S. Kalivas**

### ***Introduction to automated weed mapping and spatial data analysis***

(GIS data capture – data sources geodatabases, spatial interpolation, vegetation indices, spectrophotometry)

- 10:00 - 10:30 am Break
- 10:30 – 12:30 pm Unmanned aerial vehicle and mobile applications demonstrations in the field (Citrus orchard)
  - UAV and multispectral camera (**S. Kalivas– GIS research team of AUA**)
  - Spectral field measurement using Spectoradiometer -(**Charis Kalaitzidis - MAICH**)
  - Mobile application for data capture (**S. Kalivas– GIS research team of AUA**)
  - Mobile application – Bayer software demonstration (**M. Tempel**)
- 12:30 pm Lunch
- 02:00 – 3:30 pm Data evaluation and weed maps production -**Computer Laboratory**
- 03:30 pm Break
- 04:00 – 5:30 pm cont. Data evaluation and weed maps production- **Computer laboratory**
- 08:30 pm Evening: Party / Social event

### ***Wednesday Sept 18***

- 09:00 – 10:30 am - ***Session 6*** - **J Salonen**

***Spatial issues in weed distribution. Dominating weeds, change of composition over time, weed infestation and influence factors***

- 09:00– 09:20 am Introductory speech by the session organizer
- 09:20– 09:40 am Weed resilience and adaption to climate change in cereal agro-ecosystems- **I.S. Montanya**
- 09:40 - 10:00 am Management of weeds in henna field: a tool to improve production- **K. Benaissa**
- 10:00– 10:20 am - Monitoring of Orobanche and weed distribution in sunflower fields using GIS. The case study of north-east Greece- **A. Karachaliou**
- 10:20 - 10:30 am- Giving effective feedback on the presentations. Aspects and comments **by Session organizers**
- 10:30 am Break
- 11:00 – 12:30 pm ***Session 7***, **A. Uludag, H. Mennan, J. Holec**

***Status of rare, invasive and resistant weed mapping***
- 11:00– 11:20 am Introductory speech by the session organizer

- 11:20 – 11:40 am Mapping of rare arable plants in the Aegean - addressing scientific and dissemination gaps for the new flora of Greece and future agro-environmental schemes (AES)- **S.Meyer**
- 11:40– 12:00 am Current Status of invasive weed mapping - **A. Uludag**
- 12:00- 12.20 pm The invasion of *Atriplex micrantha* in the Czech Republic- **Josef Holec**
  - 12:20- 12:30 pm Giving effective feedback on the presentations. Aspects and comments **by the Session organizers**
  - 12:30 Lunch
  - 02:00 – 03:30 pm ***Poster session***
- 02:00 – 02:10 pm Counting Canola flowers and estimating seed yield using UAV images under Egyptian desert conditions. - **I. Frahat**
- 02:10 – 02:20 pm Monitoring and evaluation of pre-emergence herbicides performance in malt barley through remote sensing- **I. Katsikis**
- 02:20– 02:30 pm Efficacy assessment of pre - emergence herbicides to control *Lolium rigidum* L. in brewery barley- **Dimitra Doulfi**
- 02:30- 02:40 pm Weed community changes during the last three decades in semi- arid cotton crop using spatial temporal analysis- **K. Lontou**
- 02:40– 02:50 pm How weeds respond to nitrogen fertilization in a barley field- **I. Thomopoulos**
- 02:50- 03:00 pm Cattle grazing as a tool for invasive weed management and endangered species support on former pastures in mountain nature reserve- **M. Kolářová**
  - 03:00 – 3:30 pm Poster discussion
  - 03:30 – 04:30 pm Short summaries of session organizers on podium (10 minutes each + 5 minutes general discussion). Closing of the workshop
  - 5.00 visit to Vinery

**Thursday Sept 19** Departure

***We are looking forward to seeing you in Chania to share Science and Cretan Civilization!***

