

JOINT EWRS WORKING GROUP WORKSHOP

4-8 September 2011
Huesca, Spain

For the first time, the two working groups of the EWRS – ‘Weed Management in Arid and Semi-Arid Climate’ and ‘Weed Management Systems in Vegetables’ were met in a joint workshop in the Polytechnic School of Huesca (University of Zaragoza) from 4 to 8th September 2011. The workshop aimed to share the experiences of researchers in weed biology and weed management in various crops especially in the Mediterranean climate areas. It was one of the most important international meetings in our technical and scientific field, which emphasized the exchange of ideas, results and discussions on current issues related to research on weeds and promoting the establishment of collaboration on new projects and networks.

The meeting was organized by the two EWRS Working groups coordinators: Prof. Baruch Rubin from the Hebrew University of Jerusalem, Israel and Dr. Euro Pannacci from the University of Perugia, Italy and by the local organizers: Dr. Joaquin Aibar from the Polytechnic School of Huesca, University of Zaragoza; the CITA of Aragon with researchers Dr. Carlos Zaragoza, Dr. Alicia Cirujeda and Mrs. Maria Leon, and Mrs. Sonsoles Fernández-Cavada from the Department of Agriculture and Environment of the

Government of Aragón. In this occasion 40 weed scientists and students from Algeria, Denmark, Greece, Hungary, Iran, Israel, Italy, Serbia, South Korea, Spain, Sweden, Turkey, UK., and USA presented 54 papers, demonstrating the wide interest of the professionals in this meeting.



Four sessions were dedicated to: "weed biology, ecology and modelling", "herbicide resistance and integrated management in dry-land and irrigated crops", "weed management in vegetables and minor crops", and "invasive and parasitic weeds". The workshop provided excellent opportunities for exchanging professional and individual information with colleagues from all parts of the world.

Vassilis Kotoulas from Laboratory of Agronomy, Agricultural University of Athens, Greece, Mrs. Dragana Bozic from Faculty of Agriculture, University of Belgrade, Belgrade, Serbia, Mr. Maor Matzrafi from the Institute of Plant Sciences and Genetics in Agriculture, The Hebrew University of Jerusalem, Israel.

EWRS subsidized 5 young scientists: Ms Yamina Bouchikh from the Department of Biology, Faculty of Science, University of Moulay Taher, Saida, Algeria; Ms Gal Dvorkin from the the Institute of Plant Sciences and Genetics in Agriculture, The Hebrew University of Jerusalem, Israel; Mr.

In the field excursion, we visited an organic vegetable farm and a trial of herbicides in rice. A medieval castle of Sádaba was also visited in the rural area of Cinco Villas (North of Zaragoza province).



The following are the conclusions that were compiled by the participants:

1. Nowadays the agriculture of arid and semi-arid climate regions and especially minor crops needs more than ever basic and applied knowledge in weed science, due to weed competitiveness and its difficulty of management.
2. As well as the other regions, hand labour for weeding is extremely expensive and a painful task for workers and very often nonexistent, especially on vegetable crops. For these reasons other weed removal systems are necessary; as chemical, mechanical or physical weed control and preventive or cultural techniques. These alternative methods require governmental / administrative support to make them affordable for farmers.
3. The problem of the present pesticide elimination and use restrictions in the EU and particularly of herbicides, for environmental and food safety reasons, is pressing the agriculture of these areas and especially vegetable crops. The authorities must be aware of it and defend the farmers need.

4. Furthermore, we have to consider these herbicide restrictions in the EU and the appearance of herbicide resistance as an opportunity to research more and develop better integrated control systems.
5. Since weed management cannot be based exclusively on herbicide use, integrated solutions are needed and for that a deep knowledge of all agro-ecological process related to weeds and their management is necessary. We must make an effort to take advantage of all opportunities offered by the new legislation, recently approved, to use the Mutual Recognition and the Extension of Use for minor crops of active substances already approved in the EU.
6. The integrated weed management must be based on a global vision that must consider the different feasible methods: preventive, cultural, physical, biological and chemical, in combination with characteristic crop husbandry systems of these areas (e.g.: sprinkler and drip irrigation or deficit irrigation,...). In this Workshop a number of practical examples have been presented.
7. The application of pre-emergence herbicides through the irrigation systems is possible and can be very useful in vegetable crops but it requires more research and development.
8. The parasitic weed species (such as *Orobanche* spp., *Phelipanche* spp., *Cuscuta* spp. ...) are very important in the warm areas. The integration of different methods and technologies is necessary for their efficient management.
9. Weed science and weed management are highly valued among farmers and the society is more and more aware of the inconvenience of weed presence (toxic, invaders, allergenic plants,...) but we as weed scientists must make an effort to develop and apply the new technologies.
10. That is why it is necessary to incorporate young scientists and modern technologists to the research, development and educational staffs since a scarce generational replacement is detected.
11. The Joint Workshop experience of two Working Groups meeting has been satisfactory. Both groups have interacted well and the knowledge transmitted has been very useful to the participants. It has been much more economical than having two separate meetings as well, which is very important nowadays.
12. While a good participation has been obtained (40 participants from 14 countries) it is necessary to make an effort to integrate more weed scientists of Mediterranean countries (as France, Portugal,...) because their experience (in herbicide resistance, invasive weeds, irrigation,...) can be very useful for everyone.
13. The establishment of regional networks for monitoring and alert of the newly introduced noxious or invasive alien weeds can also be of a great interest for all.
14. Global change high amount of movement of goods and human, and climate change brings new challenges in our region and crops we produced. Research, policy and awareness activities require more attention than it was before.



Group photo in the medieval castle
of Sádaba, Spain

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Carlos Zaragoza, Euro Pannacci, Baruch Rubin