

20th European Weed Research Society Symposium Lleida, 1 – 4 July 2025



Oral presentations

Tuesday July 1st

Invited Speaker: *Cesar Fernandez-Quintanilla*. 50 Years of Weed Research in Europe

Chair: Husrev Mennan

Industry Session

Chair: Ilias Travlos

Co-chair: Husrev Mennan

Oral presentations

SI – O1. *L. Lorentz*; *A. Villalobos*; *J. Garrido*. Indaziflam - Broad spectrum herbicide for use in established permanent crops.

SI – O2 *Benichon*. ISOFLEX™ ACTIVE. A new isoxazolidinone herbicide: Key highlights

SI – O3. *Artzai Picon*; *Javier Romero*; *Itziar Eguskiza*; *Daniel Mugica*; *Carlos Javier Jimenez*; *Ramon Navarra-Mestre*. Using Artificial Intelligence to assess field trials for the research and development of herbicides.

Session 1: Agroecological weed and crop management (part 1)

Chair: Ilias Travlos

Co-chair: Sabine Andert

Oral presentations

S01 – O1. *Nathalie Colbach*; *Judith Burstin*; *Delphine Moreau*. Which pea traits for agroecological weed management in pea-wheat intercrops. Session keynote (20 min)

S01 – O2. *Ilias Travlos*; *Maria Ramos Garcia*; *Alexandros Tataridas*; *Helena Freitas*; *Paula Castro*; *Els Wijnstra*; *Micha Groenewegen*; *Diogo Pinho*; *Stefano Bortolussi*; *Sara Lombardo*; *Aurelio Scavo*; *Dimitris Tsaltas*; *Michalakis Christoforou*; *Antria Tsalakou*; *Nikolaos Antonopoulos*; *Ioannis Gazoulis*. Agroecological weed management in perennial crops-first year's trial results of GOOD project. (15 min)

S01 – O3. *Amandrie Louw*; *Lammert Bastiaans*; *Merel Hofmeijer*; *Niels Anten*. Insights into weed proliferation in strip cropping systems. (15 min)

- S01 – O4. Nicholas T. Basinger; Hannah Lindell; David Weisberger; Himani Ahalawat; Chris Bocz. Cover crop synergies: Palmer Amaranth (*Amaranthus palmeri* S. Wats) demographic response. (15 min)
- S01 – O5. Silvia Fogliatto; Giulia Papandrea; Alessandro Beltramo; Zineb Bennani; Barbara Moretti; Francesco Vidotto. Weed management with cover crops in Italian organic rice farming. (15 min)
- S01 – O6. F. Xavier Sans Serra; Giulia Santulli Sanzo; Laura Armengot Martínez; Ernest Mas Barrabeig. Innovative practices in managing weed populations by agroecological service crops in organic horticultural systems. (15 min)

Discussion (25 min)

Session 2: Biological Control of Weeds (part 1)

Chair: Marion Seier

Co-chair: Phil Weyl

Oral presentations

- S02 – O1. Hélia Marchante; Francisco A. López-Núñez; Ana Sofia Nunes; Liliana Neto Duarte; Elizabete Marchante. 10 yrs after the release of the gall wasp *Trichilogaster acaciaelongifoliae* in Portugal – where do we stand? Session keynote (20 min)
- S02 – O2. Francisco Alejandro López-Núñez; John Hoffmann; Fiona Impson; Ana Sofia Nunes; Liliana N. Duarte; Elizabete Marchante; Alain Roques; Grantt Martin; Hélia Marchante. Connecting hemispheres through biological control: sharing knowledge and aligning efforts. (15 min)
- S02 – O3. Marion K. Seier; Philip Weyl. Classical biological control – an opportunity to support reduced herbicide use for weed management in Europe. (15 min)
- S02 – O4. Natasha Lawson-Hale; Kate Pollard; Sonal Varia; Suzy Wood; Sarah Thomas; Marion Seier. A decade of biological control against the invasive weed *Impatiens glandulifera* in GB – challenges and successes. (15 min).
- S02 – O5. Patrice Nduwayo; Afiqah Izzati Binti Sundusin; Sri Ita Tarigan; Doan Phuong Y Nhu; Zita Dörner; Dora Iványi; Jozsef Kiss; Urs Schaffner; Stefan Toepfer. Assessing the host range of the biological control agent *Ophraella communa* in central and eastern Europe, to predict its safety in the control of the invasive alien *Ambrosia artemisiifolia*. (15 min)
- S02 – O6. Esra Cignitas; Gurkan Basbagci; Yasin Emre Kitis. Evaluation of *Fusarium* and *Rhizoctonia* isolates as biocontrol agents against Egyptian broomrape. (15 min)

Discussion (25 min)

Session 3: Herbicide Resistance (Part 1)

Chair: Katerina Hamouzova

Co-chair: Roland Beffa

Oral presentations

- S03 – O1. Jens Frackenhohl. Resistance in driver weeds against protoporphyrinogen oxidase-inhibitors (PPO, HRAC group 14) & design and chemical approaches to identify new resistance-breaking lead structures. Session keynote (15 min)
- S03 – O2. Hannah R Blyth; Frederic Beaudoin; Richard P Haslam; Barrie Hunt; Laurent Cornette; Dana R MacGregor. Herbicides differentially affect plant growth, cuticular wax composition, and fatty acid metabolism in blackgrass biotypes. (15 min)
- S03 – O3. Rebecka Dücker; Roland Beffa; Eric L. Patterson. Understanding gene regulation in flufenacet resistant ryegrass (*Lolium* spp.). (15 min)
- S03 – O4. Dipteya Nileskumar; Genny Enfissi; Paul Fraser; Melanie Watkins; Christian Noble. Understanding the mechanisms underlying herbicide synergy. (15 min)
- S03 – O5. Mahima Krishnan; Tijana Petrovic; Yuan Lin Qi; Alicia Merriam; Julian Schwerdt; James Hereward; Christopher Preston; Matthew Tucker. The Aux/IAA gene family plays a critical role in auxin herbicide resistance. (15 min)
- S03 – O6. Eric Page; Sara Martin; Sydney Meloche; Martin Laforest. Exploring the interactions of target and non-target site mechanisms of glyphosate resistance in *Conyza canadensis*. (15 min)
- S03 – O7. Evgenia Dor; Bedabrata Saha; Aviva Samach; Avraham Levy. Development of glyphosate resistant tomato. (15 min)

Discussion (15 min)

Session 4: Crop Weed Interactions

Chair: Josef Soukup

Co-chair: Milena Simic

Oral presentations

- S04 – O1. Janin Lepke; Christoph von Redwitz; Otto Richter. Modelling multi-species weed competition. Session keynote (20 min)
- S04 – O2. David Kottelenberg; Jochem Evers; Niels Anten; Lammert Bastiaans. Effects of the design of cereal-legume intercrop systems on weed suppression and crop production. (15 min)
- S04 – O3. Jonne Rodenburg; Lucie Buchi; John Cussans. Are parasitic weeds becoming more prevalent in European agriculture? (15 min)
- S04 – O4. Bàrbara Baraibar; Brosi Bradley; Mitch Hunter; Charles White; Denise Finney; Jason Kaye; Megan Schipanski; David Mortensen. Cover crop legacy effects on weed biomass and yield of the subsequent maize crop. (15 min)
- S04 – O5. Aurélie Gfeller; Çağla Eroğlu; Alexandra Bennett; Stefan Hann; Judith Wirth. Neighbour-induced alterations in root exudate composition of cover crops. (15 min)

S04 – O6. *Adrien Négrier; Aude Ripoche; Delphine Moreau; Anna Doizy; Georget Tullus; Gaëlle Damour; Raymond-Georget Tullus; Sébastien Boyer*. Critical period of weed interference in pineapple crop in Reunion Island. (15 min)

Discussion (25 min)

Session 5: Non-chemical Weed Control Tools

Chair: Judith Wirth

Co-chair: Timo Sprangers

Oral presentations

S05 – O1. *Lorenzo Gagliardi; Lorenzo Gabriele Tramacere; Daniele Antichi; Christian Frascioni; Massimo Sbrana; Gabriele Sileoni; Edoardo Monacci; Nicoleta Darra; Olga Kriezi; Borja Espejo Garcia; Alikaterini Kasimati; Alexandros Tataridas; Nikolaos Antonopoulos; Ioannis Gazoulis; Erato Lazarou; Kevin Godfrey; Camille Guilbert; Fanny Prezman; Thomas Börjesson; Francisco Javier Rodríguez Rigueiro; Rosa Maria Mosquera Losada; Maksims Filipovics; Viktorija Zagorska; Spyros Fountas*. Alternative methods to herbicides for weed control: a systematic literature review. Session keynote (20 min)

S05 – O2. *Mattie De Meester; Tim de Theije; Sébastien Temmerman; Simon Cool; David Nuytens; Benny De Cauwer*. Bio-efficiency of weed control with a blue diode laser. (15 min)

S05 – O3. *Björn Ringselle; Fereshteh Pourazari; Fredrik Fogelberg; Velemir Ninkovic*. Low-energy weed control - selectivity between weed and crop. (15 min)

S05 – O4. *Bo Melander*. Thermal weed control using steam, osmotic pressure and microwaves. (15 min)

S05 – O5. *Lena Ulber*. Effectiveness of cutting methods to reduce weed seed return into the soil. (15 min)

S05 – O6. *Anže Rovnšek; Robert Leskovšek*. Short-term response of weed seed bank to reduced tillage systems. (15 min)

S05 – O7. *Jonathan Gressel*. Potential of biobased, biodegradable non-woven straw mats for weed control in vineyards (15 min)

Discussion (10 min)

Session 6: Weed Ecology

Chair: Matthias Schumacher

Co-chair: Michaela Kolářová

Oral presentations

- S06 – O1. Delphine Moreau; Elsa Ballini; Marie Chave; Stéphane Cordeau; Caroline Djian-Caporalino; Anne-Violette Lavoit; Frédéric Suffert; Anne-Marie Cortesero. Can weed-regulating service plants also regulate other pests? Session keynote (20 min)
- S06 – O2. Savanna N. K. van Mesdag; David Comont; Helen Metcalfe; Jonathan Storkey. Distinguishing characteristics of off-crop plant communities – the importance of habitat, region and precipitation (15 min)
- S06 – O3. Stefan Meyer; Fanourios-Nikolaos Sakellarakis; Erwin Bergmeier. Conceptualizing a High-Nature-Value indicator scheme for arable land in the North Aegean (Lemnos, Greece) (15 min)
- S06 – O4. Paula Cara-Abad; Lourdes Chamorro-Lorenzo. Weed diversity decrease in vineyards of ne Spain from ‘50s to the twenty-first century (15 min)
- S06 – O5. Nina Leclef; Arnaud Monty. Long-term changes in Belgium's winter wheat (*Triticum aestivum* L.) arable flora: A functional and taxonomic analysis from the 1940s to 2024 (15 min)
- S06 – O6. G. Cortés; Alex Pérez-Ferrer; José Manuel Blanco-Moreno; Francesc Xavier Sans. Temporal dynamics of weed seedbanks in organic and conventional farms: biodiversity and management implications. (15 min)

Discussion (25 min)

Wednesday July 2nd

Invited Speaker: Pam G Marrone. Status, potential, and challenges in discovery and development of a breakthrough bioherbicide.

Invited speaker: Roland Gerhards. From site-specific weed management to robotic weeding.

Chair: Maurizio Vurro

Session 7: Economic and societal aspects of weed management

Chair: Lena Ulber

Co-chair: Aleksandra Savic

Oral presentations

- S07 – O1. J.S. Bensch; Friederike de Mol; Bärbel Gerowitt. Redefining economic thresholds: valuing biodiversity and ecosystem services of weeds. Session keynote (20 min)
- S07 – O2. Sandie Masson; Rita Saleh; Stéphane Cordeau; Nicolas Munier-Jolain; Judith Wirth. Weed perception and management decision criteria of farmers reducing reliance on herbicides. (15 min)
- S07 – O3. Michael Renton. Love the neighbour? Even if they don't manage their weeds? (15 min)

- S07 – O4. E.F. Fillols; *S Natarajan*. Mapping crop weeds using online grower survey (15 min)
- S07 – O5. *A. Couso-Viana*; *N. Ferreira-Domínguez*; *J.J. García-Berrios*; *I. Travlos*; *N. Antonopoulos*; *S. Bortolussi*; *J.J. Santiago-Freijanes*; *A. Tataridas*; *H. Freitas*; M.R. Mosquera-Losada. Vines, weeds, and GOOD solutions: Exploring sustainable weed management in European vineyards (15 min)
- S07 – O6. Nathalie Colbach; *Bruno Chauvel*; *Koen Klompe*; *Matteo Ruggeri*; *Mette Sønderskov*; *Pieter de Wolf*. Evaluating and identifying the drivers of sustainability of Integrated Weed Management systems in three European case studies with in silico tools (15 min)
- S07 – O7. Bärbel Gerowitt. Framing decisions in weed management to balance rationalities (15 min)

Discussion (10 min)

Session 8: Herbicides and application technology

Chair: Demosthenis Chachalis

Co-chair: Joel Torra

Oral presentations

- S08 – O1. Franck E. Dayan. Innovations in herbicide discovery. Session keynote (20 min)
- S08 – O2. Jan Petersen; *B. Klauk*. Long term field trial for sustainable control of multiple herbicides resistant *Alopecurus myosuroides* by integration of agronomic tools and cinmethylin. (15 min)
- S08 – O3. Demosthenis Chachalis; *Aggeliki Kousta*; *Aggeliki Petraki*; *Maria Lykogianni*; *Zoi Tserioni*; *Christos Anagnostopoulos*; *Despina Tsiriva*. Development of a nano-chitosan product with encapsulated gibberellic acid (GA3): from bench to field. (15 min)
- S08 – O4. Zahra Bitarafan; *M.H. Magerøy*; *R. de Andrade Moral*; *N. Salehan*; *K.S. Nielsen*; *C. Andreasen*. Does climate change require adjustment of glyphosate dose? (15 min)
- S08 – O5. Natalija Pavlovic; *Zeljko Dolijanovic*; *Milena Simic*; *Vesna Dragicevic*; *Milan Brankov*. Rational herbicide use as a weed management in edamame soybean production. (15 min)
- S08 – O6. Madeleine Potts; *Edward Bardsley*; *David Gurney*; *Lynn Tatnell*. Controlling perennial and annual weeds in grassland whilst maintaining white clover. (15 min)

Discussion (25 min)

Session 9: Weed detection using Artificial Intelligence

Chair: Roland Gerhards

Co-chair: Gerassimos Peteinatos

Oral presentations

- S09 – O1. Amit Jhala. Evaluating precision sprayers for targeted weed management in corn and soybean production in the USA. Session keynote (20 min)
- S09 – O2. Adam Hruška; Pavel Hamouz. Weed detection in cabbage using multispectral images and YOLO models. (15 min)
- S09 – O3. Mutu V Bagavathiannan. Application of digital technologies for understanding weed ecology and weed-crop interactions. (15 min)
- S09 – O4. Hugo Moreno; Adrià Gómez; Dionisio Andújar. Leveraging fake weeds from stable diffusion to improve CNN training. (15 min)
- S09 – O5. Yehudit Shamir; Guy Atsmon; Hanan Eizenberg; Ran Lati. Early detection of Egyptian broomrape on tomato plants using hyperspectral imaging and physiological assessment. (15 min)
- S09 – O6. Therese W. Berge; Shahzad Zaman; Torfinn Torp. On-the-go herbicide patch spraying in winter wheat. (15 min)

Discussion (25 min)

Session 10: Invasive alien plants

Chair: Ahmet Uludağ

Co-chair: Ines Santin Montanya

Oral presentations

- S10 – O1. Duarte R. Costa, Elizabete Marchante; Hélia Marchante; Francisco A. López Núñez. Invasive plant species effects on the communities of seed-predator insects: an ecological network approach. Session keynote (20 min)
- S10 – O2. Muhammad Adnan; Marisa Collins; Ali Ahsan Bajwa. Seed biology and germination response of weedy *Gazania* species in Australia. (15 min)
- S10 – O3. L Blank; Roni Gafni; Gal Rozenberg; Hanan Eizenberg. Rapid adaptation in invasive *Amaranthus albus* seed germination: better understanding climate change responses. (15 min)
- S10 – O4. Ahmet Uludag; Deniz Inci; Necmi Aksoy; Ilhan Uremis; Giuseppe Brundu. Recent updates of alien plant taxa of Türkiye (15 min)
- S10 – O5. Benny De Cauwer; Emiel Welvaert; Mattie De Meester; Joos Latré; Dirk Reheul, Jeroen Feys. Viability of *Cyperus esculentus* seeds and tubers after ensiling, digestion by cattle and manure storage. (15 min)
- S10 – O6. Ana Sofia Nunes; Elizabete Marchante; Verónica Oliveira; Maria Filomena Mingues; Daniela Santos; Hélia Marchante. Perceptions and practices of sustainable valorization and management of water hyacinth in Portugal. (15 min)

Discussion (25 min)

Session 11: Weed Biology and Physiology

Chair: Aritz Royo-Esnal

Co-chair: Jevgenija Necajeva

Oral presentations

- S11 – O1. F.A. Ali; *Irfan Afzal*. Innovative modelling approaches for effective weed control in rice-wheat cropping system. Session keynote (20 min)
- S11 – O2. Cristian Malavert; *Roberto L. Benech-Arnold*; *Diego Batlla*. Environmental regulation of dormancy in *Echinochloa crus-galli* (L.) P. Beauv. seeds. (15 min)
- S11 – O3. *Natalia Anaisa Badilla*; *Nebojša Nikolić*; *Valentina Šoštarić*; *Kirsten Sben Tørresen*; *Jevgenija Necajeva*; *Agnieszka Sinowiec*; *Peter Kryger Jensen*; *Jonathan Binder*; *Theresa Piškáčková*; *Demosthenis Chachalis*; *Guillaume Adeux*; *Lena Ulber*; *Euro Pannacci*; *Isabel Calha*; *María Dolores Osuna*; *Ilhan Üremis*; *Ahmet Uludag*; *Bojan Konstantinović*; *Jackline Abu-Nassar*; *Alexander Menegat*; *Alireza Taab*; Aritz Royo-Esnal. Seed base temperature and emergence of selected *Echinochloa crus-galli* populations. (15 min)
- S11 – O4. Aleksandra Savić; *Björn Ringselle*; *Didac Barroso-Bergadà*; *David Bohan*; *Göran Bergkvist*. Burial depth and temperature effects on seed germination of *Ambrosia trifida*: implication for weed management. (15 min)

Discussion (25 min)

Session 12: Weed management on non-agricultural land

Chair: Maor Matzrafi

Co-chair: Jose-Maria Montull Daniel

Oral presentations

- S12 – O1. Netta Salomon; *Avi Bar-Massada*; *Asaf Sadeh*; *Maor Matzrafi*. The impact of plant and patch-level characteristics on False Codling Moth infestations in Castor plant patches across northern Israel. Session keynote (20 min)
- S12 – O2. Ali Bajwa; *Muhammad Adnan*; *Babar Shahzad*. Invasive turned weed – Ecology and management of *Gazania* species in Australia. (15 min)
- S12 – O3. Micaela Malaspina; *Alicia Cirujeda*; *Gabriel Pardo*; *Fernando Escriu*. Do wider field margins really host more diversity and less weeds? An example in north-eastern Spain. (15 min)
- S12 – O4. *Guadalupe Márquez-Balecillos*; *José M. Blanco-Moreno*. Evaluating root fragmentation as a control strategy for *Ambrosia psilostachya* DC. (15 min)

Discussion (25 min)

Thursday July 3rd

Session 13: Site-specific weed control

Chair: Roland Gerhards

Co-chair: Therese Berge

Oral presentations

- S13 – O1. *Manuel Perez-Ruiz; Alessia Nizzoli; Orly Enrique Apolo-Apolo; Luis Sánchez-Fernández*. Integrating advanced AI-driven vision system for precision weed management in orchard ecosystems. Session keynote (20 min)
- S13 – O2. *Husrev Mennan; Yalcin Kaya; Bulent Basaran; Nuran Yiğit; Ruchan Comelek*. The best parameters for herbicide applications by Unmanned Aerial Vehicles (UAVs) in rice. (15 min)
- S13 – O3. *Sonja I. Kimmel; Matthias Schumacher; Roland Gerhards*. A comparative applied analysis of six site-specific robotic assisted weeding approaches in sugar beet including the evaluation of contemporary weed assessment methods. (15 min)
- S13 – O4. *Nebojša Nikolić; Marco Sozzi; Federico Lancellotti; Francesco Marinello; Luigi Sartori; Roberta Masin*. Comparative analysis of autonomous robots and traditional tractors for mechanical weed control in maize and wheat. (15 min)
- S13 – O5. *Alexander Linn; Philipp Schneider; Akshatha Ambekar; Moritz Roth; Thies Schmoldt; Robin Mink*. In-field classification of weeds and crop plants for advanced ISOBUS spot-spray applications using high-speed remote sensing and edge-AI. (15 min)
- S13 – O6. *Jordi Recasens; Diego Barranco-Elena; Jordi Maluquer; Àurea Guiu; Jordi Llorens; Ariadna Cunillera; José Manuel Plata; Xavier Torrent; Àlex Escolà; Bàrbara Baraibar*. Using LiDAR technology to verify weed control effect of roller-crimped cover crops in vineyards. (15 min)

Discussion (25 min)

Session 14: Agroecological weed and crop management (Part 2)

Chair: Ilias Travlos

Co-chair: Silvia Fogliatto

Oral presentations

- S14 – O1. *Yedra Vieites-Álvarez; Eva González-García; Andrea Álvarez-Bermúdez; David López-González; Adela M. Sánchez-Moreiras*. AGROecological Strategies for SUSTainable Weed Management (AGROSUS): Insights from stakeholder co-creation. Session keynote (20 min)
- S14 – O2. *Matteo Mota; N Delabays; S Fantasia; A Faggion; F Lamy; D Singer; M Rienth; T J Heger; V Zufferey; R Sonnard; D Marchand*. Optimizing vineyard

cover crops: balancing weed management, vine performance, and ecosystem services in Switzerland. (15 min)

S14 – O3. Darwin T. Hickman; *Chloe MacLaren; Alexander Menegat*. Linking weed functional space to effective management approaches. (15 min)

S14 – O4. Virginia Nichols; *Emma Randhal-Beltran; Marco Gentili; Mette Sønderskov; Bo Melander*. An attempt to holistically evaluate services and dis-services of fall vegetation in 30 cropping systems. (15 min)

S14 – O5. Robert Leskovšek; *Sergeja Adamič Zamljen; Anže Rovnšek*. Poor evidence that more diverse cover crop mixture offers better biomass accumulation and weed suppression either in conventional or conservation tillage. (15 min)

S14 – O6. Christophe Lacroix; *Nina Leclef; Arnaud Monty; Benjamin Dumont*. Comparing different soil management techniques under organic farming on their agronomic and ecological values: a weed perspective? (15 min)

Discussion (25 min)

Friday July 4th

Session 15: Non-chemical Weed Control Tools

Chair: Judith Wirth

Co-chair: Barbara Baraibar

Oral presentations

S15 – O1. Giulia Papandrea; *Silvia Fogliatto; Alessandro Beltramo; Zineb Bennani; Francesco Vidotto*. Growing a living mulch in maize interrow for sustainable weed management. Session keynote (20 min)

S15 – O2. Sandie Masson; *David Pasquier; Elodie Yan; Valérie Bibard; Ludovic Bonin; Delphine Bouttet; Franck Duroueix; Lise Gautellier-Vizioz; Régis Helias; Jérôme Labreuche; Ghislain Malatesta; Pascaline Pierson; François Piraux; Alain Rodriguez; Cédric Royer; Anne-Laure Toupet de Cordoue; Jean-Luc Verdier; Fanny Vuillemin; Stéphane Cordeau; Benjamin Perriot*. A Bayesian network model based on knowledge expert elicitation for integrated weed management assessment in cropping systems. (15 min)

S15 – O3. Kirsten S. Torresen; *Marit Helgheim; Vegard Hjerpaasen; Cornelis Arnoldussen; Lars Olav Brandsaeter*. Controlling overwintered cover crops and weeds before sowing spring cereals. (15 min)

S15 – O4. Andrea Milani; *Noemi Di Vita; Francesca Ottaviani; Loredana Moffa; Luca Nerva; Walter Chitarra; Massimo Turina; Niccolò Miotti; Serena Varotto; Laura Scarabel; Silvia Panozzo*. Can we control weeds with RNAi? (15 min)

S15 – O5. Jana Dutordoir; *Kathy Steppe; Bart Vanhoutte; Serge Remy; Wim Verjans; Ann Gomand; Tim Beliën; Tom Thys; Wendy Odeurs; Jonas Verellen; Benny De Cauwer*. Challenges and opportunities for integrated weed management in pome fruit. (15 min)

S15 – O6. Diego Barranco-Elena; *Jordi Recasens; Aurea Guiu; Jordi Maluque; María Pardo-Muras; Nuria Pedrol; Carolina G Puig; Bàrbara Baraibar*. Organic

mulches suppress annual weeds but *Cynodon dactylon* thrives under them in Mediterranean vineyards. (15 min)

Discussion (25 min)

Session 16: Connecting weed ecology with management

Chair: Michaela Kolářová

Co-chair: Alicia Cirujeda

Oral presentations

S16 – O1. Marco Esposito; Stefano Carlesi; Anna Camilla Moonen; Franco Angelini; Ilias Travlos; Eugenia Niccia; Guillaume Adeux; Eva Hernández Plaza; Maria Arias Martín; Diego Torricelli; Maria Remedios Alarcón-Víllora; Chiara Gabellieri; Matteo Mancini; Diego Guidotti; Nevio Dubbini; Elba de la Fuente; Ezekiel Mugendi Njeru; Antonio (Toni) DiTommaso; Jinwen Zhu; Paolo Bàrberi. NeutraWeed: Combining functional ecology with AI and robotics to shift the integrated weed management paradigm. Session keynote (20 min)

S16 – O2. Alexander Menegat. From experimental data to actionable knowledge: stochastic matrix population models to inform the design and evaluation of integrated weed management strategies. (15 min)

S16 – O3. Alessandro Triacca; Federico Leoni; Marco Esposito; Stefano Carlesi; Anna Camilla Moonen. Tree-based inference of weed community networks: Unraveling crop-weed interactions across agroecological treatments. (15 min)

S16 – O4. Alicia Cirujeda; Jorge Pueyo; Micaela Malaspina; Gabriel Pardo. Weedy fallow as a strategy to increase soil cover in dry no-till systems of northeastern Spain. (15 min)

S16 – O5. Judit Barroso; Stewart Wuest. Study of *Bromus tectorum* cultural management at seeding time in dryland cropping systems. (15 min)

S16 – O6. Metaxia Kokkini; Nikolaos Antonopoulos; Dimitra Petraki; Marios Danaskos; Vasiliki Kontogeorgou; Panagiotis Kanatas; Ioannis Gazoulis; Ilias Travlos. Assessment of legume-based cropping systems for weed management in VALERECO's Greek Living Lab (LL). (15 min)

Discussion (25 min)

Session 17: Biological Control of Weeds (part 2)

Chair: Phil Weyl

Co-chair: Marion Seier

Oral presentations

- S17 – O1. Nuria Pedrol; *María Pardo-Muras; Carolina G. Puig*. A patented herbicidal composition comprising Eucalyptus, Broom and Apple Mint biomass. Session keynote (20 min)
- S17 – O2. Jan Reinecke; *Christoph von Redwitz; Doreen Babin*. Influence on bacterial inoculants on weed germination depends on weed species and developmental stage. (15 min)
- S17 – O3. M. Haissam Jijakli, *Simon Dal Maso, Sofiene Ben Kaab; M.* A novel generation of biopesticides based on essential oils. (15 min)
- S17 – O4. Laura Scarabel; *Andrea Milani; Silvia Panozzo; Giorgio Carollo; Sihem Fodil; Ivan Baccelli; Simone Luti*. Evaluating cerato-platanin of fungal origin as a potential bioherbicide on weeds. (15 min)

Discussion (25 min)

Session 18: Herbicide Resistance (part 2)

Chair: Roland Beffa

Co-chair: Katerina Hamouzova

Oral presentations

- S18 – O1. Alfredo Manicardi; *Jake Montgomery; Rui Alves; Jorge Lozano-Juste. Todd Adam Gaines; Joel Torra*. The population genomics of *Amaranthus palmeri* from Spain. Session keynote (20 min).
- S18 – O2. Roland Beffa. How genomics contributes to improve herbicide resistance evolution modelling prediction in the fields. (15 min)
- S18 – O3. Ulrich Lutz; *Johannes Herrmann; Jean Wagner; Detlef Weigel*. Target-site resistance diagnosis reimaged: a new high-throughput method and its application to analyze hundreds of weed populations. (15 min)
- S18 – O4. Lena Ulber; *Maria Isabel Calha; Martin Medved'; Javier Martinez Perez*. EPPO Database on resistance cases to plant protection products. (15 min)

Discussion (25 min)