



Course on:

ENVIRONMENTAL RISK ASSESSMENT OF PLANT PROTECTION PRODUCTS IN TERRESTRIAL COMPARTMENTS: Current status and future developments

Coimbra, Portugal 7-10 September 2026



AIMS: The course aims to provide participants with an updated status on Terrestrial Ecological Risk Assessment of Plant Protection Products in different regions. The course is a hybrid course, with onsite OR virtual lectures where participants can experience not only how the information is managed during the ERA process (both effects and exposure) but also engage in interesting discussions about different aspects of the ERA process and of defining protection goals for different organism groups.

LECTURERS: *Alessio Ippolito* (EFSA), *Clara Aragão* (IBAMA, Brazil), *Dimitrios Karpouzas* (University of Thessaly, Greece), *Euros Jones* (ERM, Belgium), *Gregor Ernst* (Bayer, Germany), *José Paulo Sousa* (UC, Portugal), *Manousos Foudoulakis* (Corteva, Greece), *Margarida Moura* (ERM, Portugal), *Mark Miles* (Bayer, United Kingdom), *Mathieu Renaud* (Ecotox Centrum, Switzerland), *Pia Kotschik* (UBA, Germany), *Ricardo Petersen Silva* (ERM, Portugal), *Sonja Braaker* (BASF, Germany), *Susana Luís* (DGAV, Portugal), *Tiago Natal da Luz* (Cloverstrategy Lda, Portugal)

ORGANISATION: *José Paulo Sousa* (Department of Life Sciences, University of Coimbra, Portugal); *Ricardo Petersen Silva* (ERM, Portugal); *Tiago Natal da Luz* (CloverStrategy, Lda, Portugal)

REGISTRATION

Registration fees:

- On-site: 500€
- Online: 400€
- Students (Universities & Research Institutions only): 250€ (on-site or online)

Registration link: <https://forms.gle/pje2yoV41VjVfyVYA>

Deadline for registration: August 15th

For more information, please contact Liliana Almeida (e3g@uc.pt)



PROGRAMME:

Day (includes 2 coffee-breaks)	Lecture	Lecturer(s)
September, 7 Registration (9h) (Morning, 9:30h-12:30h)	• Opening, welcome message • Introductory notes on the Regulatory Process of Plant Protection Products • Introduction to the Omnibus Regulation • Developments on Environmental Risk Assessment for terrestrial non-target organisms (NTAs, In-soil, Plants) • Biodiversity monitoring and ERA in EU Central Zone	Paulo Sousa (UC) Tiago Natal da Luz (Cloverstrategy) Ricardo Petersen (ERM) Margarida Moura (ERM) Euros Jones (ERM) Alessio Ippolito (EFSA) Pia Kotschik (UBA)
September, 7 (Afternoon, 14h-17:30h)	• Current status of regulatory developments and future challenges/perspectives in Brazil • Challenges in ERA in the EU Southern Zone	Clara Aragão (IBAMA) Susana Luís (DGAV)
September, 8 (Morning, 9h-12:30h)	• ERA for NTAs and NTPPs • ERA for soil organisms– Ecotoxicology • ERA of PPPs for Birds and Mammals	Sonja Braaker (BASF) Gregor Ernst (Bayer) Manousos Foudoulakis (Corteva)
September, 8 (Afternoon, 14h-17:30h)	• ERA for soil organisms– Environmental fate • Integrated monitoring of PPP residues in soil from Swiss applied research • The future ERA for soil organisms in Brazil	Gregor Ernst (Bayer) Mathieu Renaud (Ecotox Centrum) Clara Aragão (IBAMA)
September, 9 (Morning, 9h-12:30h)	• ERA for soil microorganisms • Developments on NTAs ERA	Dimitrios Karpouzias (University of Thessaly) Artur Sarmento, Paulo Sousa (UC)
September, 9 (Afternoon, 14h-16:30h)	• ERA of PPPs for Bees (including demonstration of EFSA 2023 tool)	Mark Miles (Bayer)
September, 10 (Morning, 9h-12:30h)	• Laboratory visit and study demonstration Standard tests used for ERA of PPP for NTAs, bees and soil organisms	Artur Sarmento (UC), Tiago Natal da Luz (Coverstrategy)



THE LECTURERS



ALESSIO IPPOLITO, EFSA, Italy.

Alessio Ippolito is a senior scientific officer at EFSA, where he deals with the environmental risk assessment of pesticides. His activities include the peer review of the risk assessment for pesticide active substances, collating and weighing evidence for ad-hoc evaluations, and developing new risk assessment methodologies. He holds a PhD in ecotoxicology from the University of Milano-Bicocca. Before joining EFSA, he worked on the environmental risk assessment of chemicals for different institutions, including the University of Milano-Bicocca, the Helmholtz Centre for Environmental Research (UFZ), the International Centre for Pesticides and Health Risk Prevention (ICPS), and the Joint

Research Centre (JRC) of the EU Commission. He is part of several interorganisational committees and working groups dealing with the advancement of ecotoxicological testing, effects models, the occurrence of pesticides and pharmaceuticals in the environment, and various environmental indicators. He is a founding member of the Italian scientific network 'Successione Ecologica', which promotes the cultural and scientific exchange among young ecologists and environmental scientists.



ARTUR MIGUEL PAIVA SARMENTO, UC, E3G, Portugal.

Artur is a PhD Student at the University of Coimbra (UC). He is a member of the Environmental Ecology and Ecotoxicology Group (E3G) at the Department of Life Sciences – UC. With over 8 years of research experience, he develops his research in the areas of terrestrial ecology and ecotoxicology, mainly on risk assessment of plant protection products on bees and non-target arthropods (NTAs). He has published 3 papers in indexed JRC journals and during the last 5 years participates and/or participated

as team member in 7 projects, all mostly funded by EU programmes (H2020, INTERREG) as well by Portuguese funds (FCT, Portugal 2020, PDR2020). In addition to developing active research, he provides consultancy in terms of ecological risk assessment of plant protection products on projects funded by different national institutions (Navigator Portugal, ALTRI Florestal, ASCENZA, CloverStrategy).



CLARA WANDENKOLCK SILVA ARAGÃO, IBAMA, Brazil.

Clara Wandenkolck Silva Aragão is an Environmental Analyst at the Environmental Quality Department of IBAMA, with over a decade of experience in Environmental Assessment, with emphasis in Environmental Risk Assessment of pesticides. Currently, she leads a working group focused on the Environmental Risk Assessment of non-target soil organisms in Brazil. Clara holds a Bachelor's degree in Biological Sciences and a Master's degree in Molecular Biology, both from the University of Brasília (UnB), as well as a Specialist degree in Environmental Law from Candido Mendes University (UCAM).



DIMITRIOS KARPOUZAS, University of Thessaly, Greece.

Dr Karpouzias is a Professor in Environmental Microbiology and Biotechnology, Department of Biochemistry and Biotechnology, University of Thessaly. His main research interest focus on the interactions of organic pollutants with the soil microbiome. In this frame he (i) studies the microbial degradation of pollutants including pesticides, veterinary medicines and other agrochemicals (i.e. nitrification inhibitors) in soil and the pathways driving microbial transformations using advanced (meta)-omic and analytical approaches with ultimate goal to optimize their performance in



bioremediation strategies using single organisms or synthetic microbial consortia; (ii) investigates the ecotoxicity of pollutants like pesticides, veterinary medicines, microplastics and nitrification inhibitors on soil microorganisms using advanced and standardized tools towards a robust, tiered risk assessment; (iii) develops, validates and implements nature-based solutions including microbial, biotechnological and plant-derived inhibitors to decelerate nitrification and reduce GHG emissions; (iv) explores the development of advanced risk assessment approaches and tool for novel microbiome solutions (i.e. microbial consortia, protists, phages). He is the author of over 190 articles in peer-reviewed journals (citations 5500, h-index 45). He has coordinated several research projects funded by the European Commission (FP7-IAPP-MCSA "LOVE TO HATE"; MSCA-ITN-H2020 "ARISTO"; HORIZON-CL6-2022-FARM2FORK-01-0 "RATION"; HORIZON-WIDERA-2021-ACCESS-03 "ACTIONr"), National funding bodies, industrial partners and philanthropic foundations (Grantham Foundation).



EUROS JONES, ERM, Belgium

Euros Jones is a Partner in ERM based in Brussels. He joined ERM in December 2017 having previously held the post of Regulatory Affairs Director in the European Crop Protection Association (ECPA). Within ERM, he is involved in a range of crop protection projects, providing support for regulatory submissions and technical advocacy. He is also experienced in managing REACH Consortia and related chemical projects. Euros is also President of the European Association of the Regulatory Consultants and Contract Research Laboratories (EACL). He was elected as the first President at the time of EACL's establishment in 2024. The Association objectives are to represent the collective interests of the Members principally in scientific and regulatory matters managed by Safety Authorities in Europe



GREGOR ERNST, Bayer AG, Germany.

Since over 15 years Gregor is working in the chemical industry as a regulatory ecotoxicologist. During his PhD between 2006 and 2009 he worked on the functional and legal relevance of earthworms, i.e. the impact of earthworms on physical, chemical and microbiological parameters and the implications for the environmental legislation. In 2009, he started in the Ecotoxicology group at BASF (Limburgerhof) and changed to Bayer (Monheim) in 2012, focusing on risk assessment of pesticides for terrestrial invertebrates. Gregor is involved in different research groups which develop ecotoxicological test systems for soil organisms in laboratory, semi-field, and field conditions, and assess how these can be implemented in a tiered risk assessment approach for pesticides.



JOSÉ PAULO SOUSA, DCV – University of Coimbra, Portugal

José Paulo Sousa is an Associate Professor at the Department of Life Sciences – University of Coimbra (UC), leading the Environmental Ecology and Ecotoxicology Group (E3G). He has developed his research on the effect assessment of pesticides towards soil organisms, NTAs and honeybees. Current research interests include assessing landscape resilience towards habitat change and pesticide use regarding biodiversity and service provision, especially pollination and pest control in Mediterranean systems; evaluating interaction between climate change and pesticide use on soil communities and ecosystem services provisioning. Between 2009 and 2017 he collaborated with EFSA on activities related to ecological risk assessment of pesticides linked to the PPR Panel. He is currently a member at the EFSA WG participating dealing with drafting the new GDs on in-soil organisms, NTAs and NTPs. He is also involved in several EFSA-funded and EU funded projects on these topics (e.g., AENEAS, PERA, EESE, SYBERAC). In 2014 he was appointed head of the thematic panel for Pesticides and GMOs for the Portuguese Food Safety Agency (ASAE).



MANOUSOS FOUDOULAKIS, Corteva, Greece

Manousos Foudoulakis is an agronomist and ecotoxicologist with more than 25 years of experience in environmental risk assessment and wildlife protection. He has spent the last 14 years at Corteva Agriscience, where he serves as a Global Regulatory Ecotoxicologist and Fellow, leading expert groups focused on terrestrial vertebrates. Before transitioning to the private sector, Manousos worked for 13 years as a national and EU ecotoxicological risk assessor in Greece. During this time, he contributed to numerous EFSA initiatives addressing the impacts of pesticides on wildlife. In addition to his role at Corteva, he is a recognized leader within the industry, currently acting as co-chair of the Terrestrial Vertebrate Expert Group under CropLife Europe. Throughout his career, he has remained committed to advancing science-based policies that balance agricultural innovation with environmental protection, ensuring both sustainable productivity and ecological integrity.



MARGARIDA MOURA, ERM, Portugal.

Margarida Moura is a senior professional in Regulatory Affairs for Plant Protection Products, with over 20 years of experience across industry, consultancy, and competent authorities, with a strong focus on the registration of PPPs in the European Union (Southern zone) and Portugal. She has solid experience in dossier management, marketing authorisation processes, and regulatory strategy development at both national and zonal levels under Regulation (EC) No 1107/2009. She brings a strong background in regulatory consultancy project management, including direct interaction with clients and competent authorities. Margarida has a proven track record in institutional engagement, including representation in industry associations such as CropLife Portugal. Throughout her career, she has also been actively involved in stewardship initiatives, technical training, and the implementation of European legislation applicable to the sector.



MARK MILES, Bayer, United Kingdom.

Mark Miles is a regulatory ecotoxicologist and entomologist at Bayer AG, with almost 38 years of experience in the crop protection industry, including more than 25 years within regulatory ecotoxicology. He specializes in pollinator risk assessment. He has extensive expertise in pollinators, non-target arthropods and soil ecotoxicology, as well as in integrated pest management (IPM), insecticide development, and resistance management. In his industry role, he contributes as a stakeholder to the development and implementation of regulatory guidance and test guidelines, with a particular focus on higher-tier studies and the application of ecological modelling to improve the prediction of risks to bees and other pollinators. Mark is Chair of the CropLife Europe Bee Experts Group and Co-Chair of the ICPPR Honey Bee Higher Tier Testing and Monitoring Group and works closely with international expert communities to advance science-based approaches for pollinator protection.



MATHIEU RENAUD, Ecotox Centrum, Switzerland.

Dr Mathieu Renaud is a Scientist at the Swiss Centre for Applied Ecotoxicology, Lausanne, where he develops applied research in soil ecotoxicology. In particular, he is interested in investigating how environmental contaminants influence soil invertebrate communities and ecosystem processes using ecotoxicological tools. He also looks to understand the links between contaminant concentrations in soil, their bioavailability and their biological effects. His current research is aimed at evaluating the effects of plant protection products on long-term monitoring strategies.



PIA KOTSCHIK, UBA, Germany.

Pia Kotschik is an environmental scientist and terrestrial ecotoxicology expert at the German Environment Agency (Umweltbundesamt) and currently serves as Chair of the SETAC Global Soils Interest Group. Her work focuses on environmental risk assessment of plant protection products, soil protection, and regulatory frameworks for soil organisms and terrestrial ecosystems. Pia has been actively involved in scientific and regulatory discussions supporting the development of European soil protection policies, including the Soil Monitoring Directive and Central Zone activities related to terrestrial risk assessment. Through her leadership within SETAC and contributions to international scientific dialogues, she has become a recognized voice in advancing harmonized approaches for soil organism protection and sustainable soil management across Europe.



RICARDO PETERSEN SILVA, ERM, Portugal

Ricardo holds a PhD in entomology and biological control of forest pests in 2015 at the University of Barcelona in Spain. Ricardo started his career as a research and development coordinator at a biocontrol company in Portugal, where he was responsible for the registration of PPP at a national level and for the design and implementation of all laboratory and field trials for the development of new PPP. Ricardo then joined Bayer CropScience as an ecotoxicology expert in NTA and soil organisms. After that, Ricardo joined a consulting company as a terrestrial ecotoxicologist in September 2019 Ricardo joined the ecotoxicology team at ERM where he acts as a principal ecotoxicologist covering all areas of the risk assessment of plant protection products and veterinary pharmaceuticals. Ricardo is also responsible for the national submissions of PPPs in Portugal.



SONJA BRAAKER, BASF, Germany.

Sonja has been working as a Global Regulatory Ecotoxicologist at BASF since 2014. In this role, she is responsible for environmental risk assessments of plant protection products, with a particular focus on terrestrial non-target invertebrates and plants. She is actively engaged in the CropLife Europe Non-Target Arthropod Working Group and is involved in several interdisciplinary research initiatives, including the development of novel test methods and the advancement of both lower- and higher-tier risk assessment approaches. Sonja holds a PhD from the Institute of Terrestrial Ecosystems at ETH Zurich, Switzerland, where her research focused on habitat connectivity in urban ecosystems.



SUSANA LUÍS, DGAV (Portuguese Competent Authority for Regulatory Affairs for Plant Protection Products), Portugal.

Susana Luis is a senior professional in Ecotoxicological risk assessment and risk mitigation measures with around 30 years of experience across competent authorities and consultancy, with a strong focus on the evaluation and register of PPPs in Europe (Southern zone) and Portugal under the Regulation (EC) No 1107/2009 and Southern Zone Work Sharing GD. Susana Luís, has also a solid experience on the evaluation of active substances when Portugal is the RMS, being involved on the evaluation and preparation of RAR dossiers. In the context of the Southern zone, she has been involved in trainings and discussions of the new versions of Guidance Documents, to be implemented on the ecotoxicological risk assessment of terrestrial organisms.



TIAGO NATAL DA LUZ, Cloverstrategy, Lda., Portugal

Tiago Natal da Luz has a PhD in Biology (speciality of Ecology) from the University of Coimbra, Portugal, in collaboration with the Free University of Amsterdam, The Netherlands. From 2001 to 2024, he conducted research at the University of Coimbra in the field of soil ecotoxicology, focusing on the development, validation, and standardisation of laboratory tests with soil invertebrates. He has authored more than 65 peer-reviewed scientific publications and has contributed to over 30 national and international research and consultancy projects, addressing topics such as the valorisation of industrial by-products for use as soil amendments within a circular economy context, the development and validation of mesocosm approaches for the ecological risk assessment of PPPs in temperate and tropical soils, and the assessment of the environmental risks posed by emerging contaminants, including nanomaterials. Since June 2018, he has been a member of the Technical Committees SC4/WG2 (Effects on Soil Fauna) and SC4/WG5 (Ecotoxicological Aspects) of the International Organization for Standardization (ISO), actively contributing to the development and revision of international standards for ecotoxicological testing. Since January 2025, he has served full-time as CEO and Test Facility Manager of Clover Strategy (a company founded in 2017 that has GLP compliance for laboratory toxicological testing since 2022), where he oversees scientific, technical, and strategic activities related to environmental risk assessment, ecotoxicology, and biodiversity studies.



VENUE: The course will be held at the **Auditorium of the Department of Life Sciences of the University of Coimbra – Polo I**, near the Botanical garden (Address: Calçada Martim de Freitas, 3000-456 Coimbra – Google maps link <https://maps.app.goo.gl/NraJ76FHBQnamwjU7>).

The Department of Life Sciences can be reached by bus (buses 34, 28 and 103 stop nearby – see map), but we advise taking a taxi or Uber if you travel in rush hours.



The Auditorium is on the 1st floor (one floor above the main entrances). There are two main entrances (see below) to the building, but there will be signs indicating the path to the Auditorium.



ENTRANCE 1: Enter - follow towards the staircase on the left, go up one floor, turn right and you will find the Auditorium.

ENTRANCE 2: Enter and go up to the first floor, turn left and then right. AUDITORIUM at the end of the corridor.

COURSE SCHEDULE: The course will start **Monday, September 7, at 9AM** with the reception of participants. The full schedule can be seen on each day in the programme below.

For those attending online, the **Online session will start at 9:30 AM** to give time for colleagues coordinating the online session to allow participants to enter (see information below).

The course will end on **Thursday (September 10) before lunchtime (12:30h)**

INFORMATION FOR ONLINE PARTICIPANTS: The course will be streamed via Teams. The link, plus information regarding online attendance and online Q&A, will be sent the week prior to the course.