

CONTINUING EDUCATION COURSE

MODELING ECOLOGICAL RISKS OF AGRICULTURAL PESTICIDES

FEBRUARY 15-17, 2023

ABOUT

The first day of the course will focus on the screening-level and refined models and methodologies typically used by the US Environmental Protection Agency (US EPA) to assess pesticide risks in the environment. The second day will focus on current approaches to Endangered Species Risk Assessments (ESRAs). Topics will include co-occurrence analyses, usage data, exposure modeling, effects assessments, pollinators, risk characterization, uncertainty analysis, and ESRA refinements.

The focus on the final day will be on mitigations, future US EPA plans for pesticides, and population modeling.

Our main instructors include Dr. Dwayne Moore, Scott Teed, and Michael Winchell who have successfully taught modeling methodology and performed sophisticated pesticide risk assessments for a combined 40+ years. In addition, we have a guest lecturer who will provide a lecture on population modeling for endangered species. Combined, their backgrounds represent a variety of disciplines including ecotoxicology, chemistry, ecology, biomathematics, statistics, and hydrology. Course material will therefore be presented from different points of view and with the accumulated knowledge of their practical experience. The course will be delivered with a mix of theory and hands-on case studies.

Day 1. Screening-Level and Refined Ecological Risk Assessments

- Introduction and objectives
- Federal Insecticide, Fungicide, Rodenticide Act (FIFRA) assessments
 - 1. Screening-level risk assessments
 - Problem formulation
 - Environmental fate data analysis
 - Aquatic exposure assessments
 - Terrestrial exposure assessments
 - Aquatic and terrestrial effects analyses
 - Risk characterization (Risk results, Uncertainty)
 - 2. Refined risk assessment
 - Aquatic exposure assessments
 - Spray drift modeling
 - Terrestrial exposure assessments
 - Risk characterization and weight of evidence

Day 2. Endangered Species Risk Assessments (ESRAs)

- Overview
 - 1. Historical context
 - 2. Incorporating species life history information
 - 3. Spatial analyses (e.g., Data sources, Used Data Layers (UDL), Species ranges, Critical habitat)
- Biological evaluations (revised methods)
 - 1. Usage data (Percent Crop Treated (PCT) and how applied)
 - 2. Aquatic exposure modeling approach
 - 3. Magnitude of Effect tool (MAGtool)
 - 4. Risk characterization
- ESRAs for new registrations (Enlist method)
 - 1. Spatial analysis approach
 - 2. Aquatic exposure modeling approach
 - 3. Terrestrial exposure modeling approach
 - Pollinators and non-target invertebrates
 - Plants
 - Wildlife
 - 4. Risk characterization
- Refining Endangered Species Risk Assessments (ESRAs)

Day 3. Special Topics

- Mitigations (Upfront mitigations, Reasonable and Prudent Alternatives (RPAs)/Reasonable and Prudent Measures (RPMs), Picklists, Compensatory mitigation)
- EPA work plan and pilot projects
- Special guest lecture: Population modeling

COURSE OVERVIEW

COVID-19

All participants must be vaccinated.

masks are optional

REGISTRATION

HOTEL

Wyndham Lake Buena Vista Disney Springs® Resort

1850 Hotel Plaza Boulevard, Lake Buena Vista, Florida 32830

www.wyndhamhotels.com

SPECIAL HOTEL RATES

\$159 US King or two double beds

The special rate does not include a discounted resort fee of \$25 and 12.5% room tax. Book online or call Toll Free: 800-624-4109.

Please Quote Reservation Code: Intrinsik
 Reserve Before January 16th, 2023 for the special rate to apply.

COURSE TUITION

\$1250 US - if paid prior to January 10th, 2023

\$1375 US - if paid after January 10th, 2023

TO REGISTER

www.intrinsik.com