

TENTATIVE TECHNICAL PROGRAM



42ND SYMPOSIUM ON PESTICIDE FORMULATION AND DELIVERY SYSTEMS: BUILDING THE FUTURE OF AGROCHEMICALS FOR 2030 AND BEYOND

Sponsored by ASTM Committee E35 on Pesticides, Antimicrobials, and Alternative Control Agents.

October 18-20, 2022
Sheraton New Orleans Hotel
New Orleans, LA, USA

Symposium Chair: Krista Turpin
Stepan Company
Winder, GA, USA

ABOUT THE SYMPOSIUM

This symposium will provide a forum for the presentation and discussion of formulation and application technologies associated with pesticides, biopesticides, micronutrients, and adjuvant products (agrochemicals). Primary attention will be directed to presentations related to formulation and application technologies to improve agrochemical properties, efficacy, and pesticide drift reduction. The topics of global regulatory trends, product stewardship, sustainability, and safety impacting agrochemical formulations will also be discussed. Other topics of interest include physical and chemical test methods related to agricultural products and innovative crop protection chemicals to improve safety and sustainability.

TUESDAY, OCTOBER 18, 2022
(All times in U.S. Central Daylight Time)

- 1:00 PM **Opening Remarks**
Krista Turpin, Symposium Chair
- 1:05 PM **E35.22 Update from the Committee Chair**
Scott Tann, Lamberti, Conroe, TX, USA

SESSION 1

Session Chair: Ryan Rector
Adjuvants Unlimited
Memphis, TN, USA

- 1:35 PM **In vitro Penetration Methodologies, Agronomic Efficacy and the Design of New Bioactivator Adjuvants**
Denis Bendejacq, Solvay, Bristol, PA, USA
- 2:00 PM **Probing Adjuvant Mechanism and Efficacy of Different Surfactants with a QCM-D Methodology**
Turgut Battal, Nouryon, Gothenburg, Sweden
- 2:25 PM **A New Mathematical Formula to Assess Synergy for Pesticide Mixtures**
Zhengyu Huang, Valent USA LLC, San Ramon, CA, USA
- 2:45 AM BREAK
- 3:15 PM **Adjuvants Enhancing the Residual Activity of Soil-Applied Herbicides**
Edson Cardoso Ramos Junior, Indorama Ventures Integrated Oxides and Derivatives S.A., Mauá, SP, Brazil
- 3:50 PM **Tailored Adjuvants for Drone Technology: Success with Synergen DRT**
Jennifer Bickel, Clariant Corporation, Mount Holly, NC, USA
- 4:15 PM **Parametrization of Pulsing Sprays**
Steven A. Fredericks, Winfield United, River Falls, WI, USA
- 4:40 PM **Discussion and Announcements**
Krista Turpin, Symposium Chair
- 4:55 PM SYMPOSIUM ADJOURNS FOR THE DAY

WEDNESDAY, OCTOBER 19, 2022
(All times in U.S. Central Daylight Time)

8:00 AM **Opening Remarks**
Krista Turpin, Symposium Chair

KEYNOTE SPEAKER

8:15 PM **AgChem Formulations: The Future is Not What it Used to Be**
Johnnie Roberts, JRR Formulation Technical Services, Arlington, TN, USA

SESSION 2

Session Chair: Yasmith Bernal
Oil-Dri Corporation
Third Lake, IL, USA

9:00AM **Straight Stream Nozzle Models to Support Aerial Applications**
Bradley Fritz, USDA ARS, College Station, TX, USA

9:25 AM **Examining the Structure-function Relationship of Block Copolymer Soil Surfactants in Sand-based Putting Greens**
Daniel O'Brien, University of Arkansas, Fayetteville, AR, USA

9:45 AM BREAK

10:15 AM **Evaluation of Spray Drift at Drone Spray Concentrations and the Effectiveness of Different Drift Reduction Mechanisms**
Jeferson A. Naue, Momentive Performance Materials, Tarrytown, NY, USA

10:40 AM **Research Protocol for Approval of Drift-Reducing Adjuvants for Dicamba in Brazil**
Ulisses R. Antuniassi, São Paulo State University, Botucatu, SP, Brazil

11:05 AM **Guar Gums in the Design of Drift and Volatility Reducing Tank Mixes**
Ganesh Sanganwar, Solvay, Bristol, PA, USA

11:30 AM LUNCH (on your own)

SESSION 3

Session Chair: Amy Taylor
Stepan Company
Winder, GA, USA

- 1:30 PM **Lignin Based dispersant for Efficient and Sustainable Suspension Concentrates for Crop Protection and Plant Nutrition Applications**
Tiffany McQueen, Borregaard USA, Rothschild, WI, USA
- 1:55 PM **Investigation of Dispersant Agents and Their Improvement in Performance in Suspension Concentrate Formulations**
Kristeen Esther Joseph, Dow Inc., Lake Jackson, TX, USA
- 2:20 PM **How to Use Easily Accessible Coformulants to Control Crystal Growth in Challenging SC Formulations**
Qi Wang, Ingevity, North Charleston, SC, USA
- 2:45 AM BREAK
- 3:15 PM **Adjuvants for *Bacillus sp* Biofungicides**
Timothy Anderson, BASF Corporation, Cincinnati, OH, USA
- 3:50 PM **Cellulose Fibrils, a Sustainable Biobased Film Forming Stabilizer for Biological and Conventional Liquid Formulations and for Seed Coatings**
Rebecca Blell, Borregaard AS, Sarpsborg, Norway
- 4:15 PM **Additives and Surfactants for Enhanced Microbial Formulation Stability and Efficacy**
Lesley Schmid, Evonik Corporation, Richmond, VA, USA
- 4:40 PM **Discussion and Announcements**
Krista Turpin, Symposium Chair
- 4:45 PM SYMPOSIUM ADJOURNS FOR THE DAY

THURSDAY, OCTOBER 20, 2022
(All times in U.S. Central Daylight Time)

SESSION 4

Session Chair: Dan Wright
Adjuvants Unlimited / Dan Wright Consulting
St. Louis, MO, USA

- 9:00AM **Finding the Balance: Selection of Sustainable Solvents in Agrochemical Formulations and Their Regulatory Baggage**
Jennifer Bickel, Clariant Corporation, Mount Holly, NC, USA
- 9:25 AM **Eucarol TE: An Innovative Technology for Sustainable Formulations**
Gianfranco Paganini, Lamberti, Conroe, TX, USA
- 9:45 AM BREAK
- 10:15 AM **New Solid Dispersant – DEVCCUS-2201**
Stephanie Garufi, Croda, New Castle, DE, USA
- 10:40 AM **Acetate Ester Solvents for Next Generation AgChem Formulations**
Sean Neuenfeldt, Hallstar, Bedford Park, IL, USA
- 11:05 AM **Structural and Compositional Impact of Phosphate Esters on Application Performance**
Mojahedul Islam, Nouryon, Bridgewater, NJ, USA
- 11:30 AM **Closing Remarks and Announcements**
Krista Turpin, Symposium Chair
- 11:45 AM SYMPOSIUM ADJOURNS