ABOUT THE SYMPOSIUM
This symposium will provide a forum for the presentation and discussion of formulation and application technologies associated with agrochemical products. Particular attention will be given to innovative technologies targeting more efficient, more effective, safer and more precise delivery of crop protection and production products. The symposium will also focus on the chemistry and physical properties of these products and the role they play in their application and delivery; novel, innovative or targeted delivery systems or formulations; methods for assessing the impact of formulated products on product delivery; and regulatory issues impacting the agrochemical formulation and application industries. Other topics of interest include, but are not limited to: effects on pollinators, UAS delivery systems, drift reduction technologies, sustainability of current and upcoming pesticide products and formulations, and innovative chemistries for future use.
TUESDAY, OCTOBER 10, 2017

1:00 PM
Opening Remarks
Brad Fritz, Symposium Chairman

KEYNOTE SPEAKERS

1:15 PM
The Dicamba Problem. What Is It and How Did We Get Here?
G. Kruger, Univ. NE, North Platte, Nebraska, USA

1:55 PM
The Dicamba Problem. What Is It and How Did We Get Here?
R. Rector, Monsanto Company, St. Louis, MI

2:35 PM
Open Discussion and Questions
All Attendees

2:45 PM   BREAK

SESSION 1

Session Chairman: Brad Fritz
                   USDA
                   College Station, Texas, USA

3:15 PM
Droplet Spectra and Drift Potential Generated by Flat Fan Nozzles Spraying New Formulations of 2, 4-D Engineered for Drift Reduction
U. Antuniassi, UNESP – FCA, Botucato, Sao Paulo, Brazil

3:40 PM
Mass Balance and Swath Offset Evaluations from Agricultural Application Field Trials.
B. Fritz, USDA ARS, College Station, Texas, USA

4:05 PM
Acute Toxicity Assessment of Various Organosilicone Surfactants to Honeybees.
S. Arshad, Momentive Performance Materials Inc, Waterford, New York, USA

4:30 PM
Discussion and Announcements
Brad Fritz, Symposium Chairman

4:45 PM       ADJOURN FOR THE DAY
WEDNESDAY, OCTOBER 11, 2017

SESSION 2

Session Chairman: Doug Linscott
Dow AgroSciences
Indianapolis, Indiana, USA

8:30 AM
**Droplet Velocity from Broadcast Agricultural Nozzles as Influenced by Pulse-Width Modulation**
T. Butts, University of Nebraska-Lincoln, North Platte, Nebraska, USA

8:55 AM
**Water Sensitive Card Spread Factors for Common Agricultural Spray Solutions**
W.C. Hoffmann, USDA-ARS, College Station, Texas, USA

9:20 AM
**Influence of Nozzle Type, Speed and Pressure on Droplet Size and Weed Control from Roundup PowerMax, Clarity, and Roundup PowerMax and Clarity Tank-Mixtures.**
A. Rodrigues, University of Nebraska-Lincoln, North Platte, Nebraska, USA

9:45 AM BREAK

10:15 AM
**The Impact of Nozzle Selection on the Efficacy of Glyphosate and PPO-Inhibiting Herbicide Tank-Mixtures**
J. Moraes, University of Nebraska-Lincoln, North Platte, Nebraska, USA

10:40 AM
**Impact of Plugged Venturi-Nozzle Air Inclusion Ports on Droplet Size Distribution**
T. Butts, University of Nebraska-Lincoln, North Platte, Nebraska, USA

11:05 AM
**Design of a Hydraulic Splashing Nozzle: Experimental Investigation of a Round Jet Impacting a Disk.**
S. Ouled Taleb Salah, University of Liege, Gembloux, Belgium

11:30 AM LUNCH (on your own)
SESSION 3

Session Chairman: Hao Shen
Dow AgroSciences
Indianapolis, Indiana, USA

1:05 PM
**Validation of Standard Water Conditioning Testing**
J. Adams, North Dakota State University, Fargo, North Dakota, USA

1:30 PM
**Lignin-Based Dispersants for Liquid and Solid Formulations**
T. McQueen, Borregaard LignoTech, Houston, Texas, USA

1:55 PM
**Identification and Evaluation of Water Conditioning Agents for Tank Mixes in Which Ammonium is Prohibited**
R. Edlund, Huntsman International, The Woodlands, Texas, USA

2:20 PM
**Studies to Predict the Best Dispersant Looking for Improvements in Suspensibility**
Alan Halecky, A. Bodemeier, Oxiteno, Campinas, Brazil

2:45 PM       BREAK

3:15 PM
**Is Retention the Old-New Problem in a Drift Control Era?**
F. Costa, Oxiteno, Mau, Sao Paulo, Brazil

3:40 PM
**Efficacy of Non-Ammonium Sulfate Adjuvants for Dicamba Tolerant Soybean**
R. Zollinger, North Dakota State University, Fargo, North Dakota, USA

4:05 PM
**Using an Alkyl-Terminated Surfactant to Improve Plant Health and Plant Disease Management.**
M. McMillan, Aquatrols, Pompano, Florida, USA

4:30 PM
**An Assessment of Polymeric Drift Reduction Adjuvant Performance After Prolonged Exposure to Pump Induced Shear.**
D. Bissell, D. Brown, L. Magidow, J. Gednalske

4:55 PM
**Discussion and Announcements**
Brad Fritz, Symposium Chairman

5:00 PM       ADJOURN FOR THE DAY
THURSDAY, OCTOBER 12, 2017

SESSION 4

Session Chairman: Thomas Butts
University of Nebraska-Lincoln
North Platte, Nebraska, USA

8:05 AM
Solubility and Metastable Zone Width for N-(n-Butyl)-Thiophosphoric Triamide
L. Havens, Dow Chemical, Midland, Michigan, USA

8:30 AM
Polymeric Rheology Modifier for Oil Dispersions
S. Zhu, AkzoNobel, Brewster, New York, USA

8:55 AM
Development of Agricultural Oil Dispersion Formulation
H. Shen, Dow AgroSciences, Indianapolis, Indiana, USA

9:20 AM
New Polymeric Surfactant Working as Dispersing Agent and Tank Mix Compatibilizer
R. DiModungo, CST-PPC Lamberti Group, Conroe, Texas, USA

9:45 AM BREAK

10:15 AM
Enhancing the Effect of Pesticides with Environmentally Friendly Exilva Microfibrillated Cellulose
A. Karppinen, Borregaard AS, Sarpsborg, Norway

10:40 AM
The Role of Interfacial Rheology in Agricultural Drift Control
K. Penfield, Croda Crop Care, New Castle, Delaware

11:05 AM
The Application of Raman Microscopy in Pesticide Formulation Analysis
K. Smith, Renishaw, West Dundee, Illinois

11:30 AM
Closing Remarks and Announcements
Brad Fritz, Symposium Chairman

11:45 AM SYMPOSIUM ADJOURNS