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# PICOGRAM V. 87

**AMERICAN CHEMICAL SOCIETY**

*Call for Papers for Boston*



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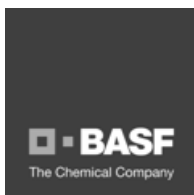


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### Gold



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## From the Chair's Desk

Cathleen J. Hapeman

What a year 2014 was! Congratulations to the AGRO Division and all the folks who helped make the 13th IUPAC International Congress of Pesticide Chemistry in San Francisco at the 248th ACS National Meeting a smashing success. More than 1200 participants representing 53 countries (52% were from the US) attended the Congress. Over 1000 abstracts (for poster and oral presentations) were included in the final program, which was comprised of 46 technical symposia of invited lecturers, poster sessions, and interactive panel discussions. Special thanks to Ken Racke and Laura McConnell, the primary organizers of this meeting, for their vision to bring the Congress to the US and to have AGRO serve as co-sponsor.

**Boston and Beyond.** Building on the success of the Congress, Pam Rice, Program Chair, has organized a team of over 80 symposium organizers, and together they are organizing 36 symposia. It is likely that some of these may be combined, but nonetheless this is AGRO's largest group of Call for Papers. Kudo's Pam! Plan to submit an abstract and attend the meeting. **Please note: Abstracts must be submitted by March 16, 2015. This deadline is firm and cannot be extended because the new system is not as flexible as PACS.** Since this is a new system, I strongly encourage you to submit your abstracts early just in case you encounter any issues with the new software.

Encourage your students and post-docs to apply for an Education Travel Grant and New Investigator Award, respectively. The deadline for both is March 16, 2015 (see pp. 19 and 21).

As Vice-Chair, Jay Gan is also Chair of the Programming Committee, and at the Boston meeting, he will be seeking symposia ideas for the ACS National Meeting in August 2016 in Philadelphia. More details on this meeting will be listed in the Fall *PICOGRAM* and in upcoming AGRO enewsletters.

**Additional AGRO Programming Activities.** In addition to the Fall ACS National Meetings, AGRO provides programming at other meetings and events. Under the leadership of John Johnston, AGRO is co-organizing three symposia for the Pacificchem 2015 meeting to be held December 15-20, 2015 in Honolulu, Hawaii (see p. 66). Abstracts are due April 1, 2015.

- Proteomics and Metabolomics in Agricultural, Environmental, and Public Health Sciences
- Opportunities and Advancements in Rice Research and Aquaculture Research
- Phytochemicals for Crop Protection: Discovery to Molecular Target

AGRO is a co-sponsor for the North American Chemical Residue Workshop in July in Florida (see p. 63). Abstracts for oral presentations are due April 15. AGRO also is continuing its sponsorship of poster awards at the Latin American Pesticide Residue Workshop (LAPRW, see p. 65) and lectures and training

in Peru through a grant from the Foundation for the Study of Traditional Sciences and Arts (ECYART). Additional nominations are being sought for 2015 lecturers (see p. 64). A recent addition to our programming is the AGRO Lunch and Learn Webinar Series (see p. 62). Check out all these AGRO programming opportunities and others in listed in the *PICOGRAM* and on the website.

**New Scientists.** Over the years, AGRO has encouraged the participation of new scientists in AGRO by revamping the New Investigator Award, continuing and strengthening the Education Travel Award, and participating in the Young Chemists Committee. Most recently, the AGRO membership elected last year's winner of the New Investigator Award, Lacey Jenson, to the Executive Committee. In Boston, Lacey Jenson and Daniel Swale will organize a symposium entitled, *Current Advances and Challenges in Arthropod Vector Control*, which will include discussions about future research directions in arthropod vector control. This is a great idea and my hope is that more new scientists will come forward and design a similar symposium for the Philadelphia meeting. Please continue to encourage and to support their efforts. After all, these are the future leaders of the AGRO Division.

**ACS ChemLuminary Global Engagement Award.** At the ACS National Meeting in San Francisco last summer, the AGRO Division received the ACS ChemLuminary Global Engagement Award for our international activities. Given the list of notable international work, this award is certainly well deserved. Many thanks to all those who enabled AGRO to be recognized for this prestigious award. Another job well done.

**AGRO's Strategic Plan.** In 2015, we will revisit our strategic plan, and I am pleased to report that we have made significant progress in meeting the goals we set for ourselves back in 2011 which can be found on the AGRO website ([www.agrodiv.org](http://www.agrodiv.org)). Of particular note is that we have:

- greatly increased our international presence,
- established strategic alliances and collaborations with other ACS Divisions and non-ACS organizations,
- developed a monthly enewsletter,
- increased our pool of symposium organizers, and
- developed innovative, web-based electronic programming.

Do you have some ideas that you would like to see included in our next strategic plan? Send an email to any of the AGRO officers. Our intention is to hold the strategic planning meeting in either late May/early June or sometime in the Fall of 2015.

Looking forward to another successful year for AGRO!



## AGRO DIVISION FELLOWS

1971	Louis Lykken Tom H. (Bucky) Harris Herman Beckman (Posthumous)	1979	Rodney D. Moss	1998	Hank Cutler Paul Giesler
1972	Wendell F. (Bud) Phillips Don G. Crosby Elvins Y. Spencer	1980	G. Wayne Ivie John B. Siddall (Posthumous)	2000	Barry Cross
1973	Mr. Roger C. Blinn Philip C. Kearney Julius J. Menn	1981	Robert M. Hollingsworth Gino J. Marco	2001	Robert Hoagland
1974	Morton Beroza James P. Minyard, Jr. Joe C. Street	1983	John Harvey, Jr.	2003	Judd O. Nelson
1975	Hank F. Enos Maurice B. Green Charles H. Van Middlelem	1985	Henry Dishburger Richard C. Honeycutt	2005	Rodney Bennett
1976	Marguerite L. Leng Jack R. Plimmer Gerald G. Still	1986	Gunter (Jack) Zweig	2006	Terry D. Spittler
1977	Gustave K. (Bob) Kohn	1987	Willi Garner	2007	John M. Clark Ann T. Lemley R. Donald Wauchope
1978	S. Kris Bandal Paul Hedin	1988	Jan Chambers James Seiber	2008	Allan S. Felsot
		1990	Joseph Fenyes	2011	Laura L. McConnell
		1991	Nancy N. Ragsdale	2012	Jeffrey J. Jenkins John J. Johnston
		1992	Don Baker Joel Coats Guy Paulson	2013	Stephen S. Duke Cathleen J. Hapeman Kenneth D. Racke Teresa A. Wehner
		1993	Larry Ballantine	2014	Aldos C. Barefoot Jeanette M. Van Emon
		1994	James Heitz Ralph Mumma Willis Wheeler		
		1996	John Bourke		

## ACS FELLOWS FROM THE AGRO DIVISION

2009	Glenn Fuller	2011	John W. Finley	2014	Kevin Hicks
2010	James N. Seiber		N. Bushan Mandava		Laura L. McConnell
		2012	Jeanette M. Van Emon		Kenneth D. Racke

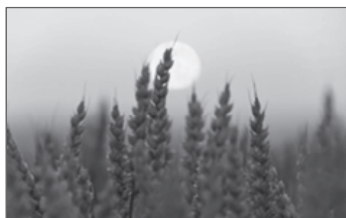


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# AWARDS COMMITTEE REPORT

**Keith D. Wing**, recently retired from DuPont, is the recipient of the 2015 International Award for Research in Agrochemicals. Wing receives this award for his research and exceptional accomplishments in metabolism, bioavailability, and formulations research. A symposium in his honor will be organized by Drs. Thomas Sparks, Jerry Green, and Beth Lorschach and will be held at the 250th ACS National Meeting in Boston.

The winner of the USDA-Agricultural Research Service Sterling Hendricks Lectureship Award will be announced shortly. The winner will present a lecture in a lunchtime symposium on Tuesday at the 250th ACS National Meeting in Boston and will be hosted by AGRO and cosponsored by AGFD.

In cooperation with the AGRO and AGFD divisions, the Journal of Agricultural and Food Chemistry (JAFC) will sponsor 2 lectureships for outstanding papers in JAFC. Papers are divided according to journal subject category and forwarded to review committees from each division, who will select the winners. The awardees will receive a plaque, a monetary award, and travel expenses to the meeting. The call for nominations of papers published in 2015 will be solicited from AGRO and AGFD members and from the public through the JAFC website beginning in late Fall 2015; the deadline will be December 31, 2015. Winners of the 2014 lectureships will be announced shortly and will be presented in Boston.

**Lacey Jensen**, Virginia Tech, received the 2014 New Investigator Award sponsored by Dow AgroSciences. This award is presented by AGRO to scientists who have obtained a doctoral degree within the past five years and are actively conducting academic, industrial, consulting or regulatory studies related to aspects of agrochemicals. AGRO has also established an endowment fund in collaboration with Bayer CropScience to

promote an understanding of the role of chemistry in agriculture for students. In 2014, at the IUPAC International Congress on Pesticide Chemistry, over 50 students received travel awards to attend the meeting.

Congratulations to all the posters winners of the 13th IUPAC Congress of Pesticide Chemistry. Over 600 posters were presented, and 24 winners were selected from the various topic areas. A complete list can be found on pages 6 and 7

Nominations for the 2017 International Award for Research in Agrochemicals and the 2016 AGRO Award for Innovation in Chemistry of Agriculture are currently being evaluated by the Awards Committee. The nomination criteria for the 2017 International and 2016 Innovation Awards can be found on pages 9 & 11, respectively. The Awards Committee is also accepting new award nominations for the Division Fellow Award. Criteria for the award and what to submit are shown below. The deadlines each year are March 31 for the Fellow Award and December 31 for the International and Innovation Awards.

Nominations for the 2016 Sterling Hendricks Lectureship Award are being solicited by USDA-ARS. The nomination criteria can be found on page 13. Nominations for the Kenneth A. Spencer Award are being solicited by the ACS Kansas City Section, and criteria can be found on page 15.

Please consider nominating a deserving colleague for the AGRO Division and external awards.

Respectfully submitted,  
James N. Seiber, Chair  
Awards Committee



## CALL FOR NOMINATIONS AGRO DIVISION FELLOW AWARD

The AGRO Division has established the **Division Fellow Award** to recognize its members whose dedicated and enthusiastic service has kept the Division moving forward.

Criteria shall be –

*Continued and substantial contributions of time, talents, and service to the Division of Agrochemicals, ACS, and to agrochemical science over a period of at least six years.*

Nominations include a letter, noting the contributions to the Division, and a current *curriculum vitae*. Deadline for submitting nominations is March 31 of each year. Contact the Awards Committee for further information.

Submit nominations electronically to:

James N. Seiber  
AGRO Awards Committee Chair  
530-752-1141  
jnseiber@ucdavis.edu





13<sup>th</sup> IUPAC International Congress on Pesticide Chemistry  
*Crop, Environment, and Public Health Protection*  
*Technologies for a Changing World*  
August 10-14, 2014, San Francisco, California USA

## Congratulations to All the Poster Winners!

Over 600 posters were presented, and awards were given in each topic area. The number of awards was based on the total number of posters presented in each

category relative to the total number of posters. Posters were scored on technical quality, presentation clarity, importance to the field, and originality.

### Agricultural Biotechnology

*Novel weed control in sugar beet.* **Ruediger Hain**<sup>1</sup>, Bernd Holtschulte<sup>2</sup>. <sup>1</sup>Department of Biotechnology and Biochemistry, BayerCropScience AG, Frankfurt/Main, Germany; <sup>2</sup>Department of Phytopathology, KWS SAAT AG, Einbeck, Germany

### Discovery and Synthesis

*New in vitro method combining plant cuticle penetration with insecticidal activity: Investigating foliar uptake of a research systemic insecticide.* **Anke Buchholz**<sup>1</sup>, Denise Baumann<sup>1</sup>, Anthony O'Sullivan<sup>1</sup>, Juergen Schaezter<sup>1</sup>, Johanna Williams<sup>2</sup>. <sup>1</sup>Syngenta Crop Protection Munchwilen AG, Stein, Switzerland; <sup>2</sup>Syngenta Crop Protection Munchwilen AG, Muenchwilen, Switzerland

*Synthesis of flavone analogs and activity against the fish bacterial species *Flavobacterium columnare*.* Cheng-Xia Tan<sup>1</sup>, Kevin K. Schrader<sup>2</sup>, Ikhlas A. Khan<sup>3</sup>, **Agnes M. Rimando**<sup>2</sup>. <sup>1</sup>College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China; <sup>2</sup>USDA-ARS, University, Mississippi, USA; <sup>3</sup>National Center for Natural Products Research, The University of Mississippi, University, Mississippi, USA

*Aminothiazolines: Novel chemistry for the control of piercing-sucking pests.* **Sebastian Soergel**, Wolfgang von Deyn, Matthias Pohlman, Ronan le Vezouet, Christopher Koradin, Markus Kordes. BASF SE, Ludwigshafen, Rheinland-Pfalz, Germany

*Structural simplification of trifluoromethyl nicotinamides: Novel opportunities for seed-applied aphicides.* **Sebastian Rendler**, Peter Maienfisch, Thomas Pitterna, Brigitte Slaats. Syngenta Crop Protection AG, Stein, Switzerland

### Ecosystem and Human Exposure and Risk Assessment

*Diversity and abundance of arthropods in Bt- and non-Bt-cotton fields of Warangal, India.* **Sammaiah Chinthla**. Department of Zoology, Kakatiya University, Warangal, Andhra Pradesh, India

*Data relevance and data quality for ecological risk assessment.* **Roger L. Breton**. Intrinsic Environmental Sciences Inc., Ottawa, ON, Canada

*Refining operator inhalation exposure: Droplet size characterization of aerosolized sprays from agricultural nozzles.* **Sheila Flack**, Mark Ledson, Eileen Kennedy. Syngenta Crop Protection, LLC, Greensboro, NC, USA

### Emerging Issues and Challenges

*Clothianidin residues in pollen and nectar of cucurbits following different use patterns.* **Svetlana Bondarenko**<sup>1</sup>, Allan Rose<sup>2</sup>, Mike Ansolabehere<sup>1</sup>, Richard Allen<sup>1</sup>. <sup>1</sup>Valent Technical Center, Valent USA Corporation, Dublin, CA, USA; <sup>2</sup>Rose Consulting, Orinda, CA, USA

### Environmental Fate and Metabolism

*Improving continuous monitoring of VOC emissions from alternative fertilizers.* **Adrian Romero-Flores**<sup>1</sup>, Laura L. McConnell<sup>1</sup>, Cathleen Hapeman<sup>2</sup>, Anh Nguyen<sup>2</sup>, Mark Ramirez<sup>3</sup>, Alba Torrents<sup>1</sup>. <sup>1</sup>Department of Civil and Environmental Engineering, University of Maryland, College Park, MD, USA; <sup>2</sup>USDA-ARS, Beltsville, MD, USA; <sup>3</sup>Department of Wastewater Treatment, District of Columbia Water and Sewer Authority, Washington, DC, USA

*Novel biodegradation mechanism of alkylphenol polypropoxylates and identification of their biodegradate by S10-GERMS method.* **Kana Shiozawa**, Takatomo Saito, Akifumi Hosoda, Hiroto Tamura. Department of Environmental Bioscience, Meijo University, Nagoya/Tenpaku-ku, Aichi, Japan

# 13<sup>th</sup> IUPAC International Congress on Pesticide Chemistry

## Poster Winners (continued)

*Effect of biochar on the fate and behavior of allelochemicals in soil.* **Kathleen E Hall**<sup>1</sup>, Maria J Calderon<sup>2</sup>, Kurt A Spokas<sup>3</sup>, Lucia Cox<sup>2</sup>, William C Koskinen<sup>3</sup>, Jeffrey Novak<sup>3</sup>, Keri Cantrell<sup>3</sup>. <sup>1</sup>Department of Soil Water and Climate, University of Minnesota, St. Paul, MN, USA; <sup>2</sup>CSIC-IRNAS, Spain; <sup>3</sup>USDA-ARS, Saint Paul, MN, USA

*Occurrence of pesticides and contaminants of emerging concern in surface waters: Influence of surrounding land use and evaluation of sampling methods.* **Pamela Rice**<sup>1,3</sup>, David Fairbairn<sup>5</sup>, Elizabeth Kaufenberg<sup>5</sup>, William Arnold<sup>2</sup>, Paige Novak<sup>2</sup>, William Koskinen<sup>1,3</sup>, Brian Barber<sup>3</sup>, M. Ekrem Karpuzcu<sup>4</sup>, Deborah Swackhamer<sup>4</sup>. <sup>1</sup>USDA-ARS, Saint Paul, MN, USA; <sup>2</sup>Department of Civil, Environmental, and Geo-Engineering, University of Minnesota, Minneapolis, MN, USA; <sup>3</sup>Department of Soil, Water, and Climate, University of Minnesota, Saint Paul, MN, USA; <sup>4</sup>Water Resources Center, University of Minnesota, Saint Paul, MN, USA; <sup>5</sup>Water Resources Science Graduate Program, University of Minnesota, Saint Paul, MN, USA

*Sorption and enantiomerization of malathion and metalaxyl by minerals.* **Cindy M. Lee**<sup>1</sup>, April A. Hall<sup>2</sup>. <sup>1</sup>Environmental Eng and Earth Sci, Clemson University, Anderson, SC, USA; <sup>2</sup>Nutra Manufacturing, Greenville, SC, USA

### Formulation and Application

*Optimization of spray application technology in ornamental crops.* Dieter Foqué, **David Nuyttens**. Technology and Food Science Unit, Agricultural Engineering, Institute for Agricultural and Fisheries Research (ILVO), Mellebeke, Belgium

*Towards environmentally friendly solid formulations.* **Hiteshkumar Dave**, Ashish Batra, Ray Boucher, Lei Liu. Dow AgroSciences LLC, Indianapolis, IN, USA

### Mode of Action and Resistance Management

*Glyphosate resistance in *Amaranthus palmeri* involves multiple mechanisms.* **Darci Giacomini**<sup>1,2</sup>, Dafu Wang<sup>1</sup>, Jillian Silva<sup>1</sup>, Nengbing Tao<sup>1</sup>, Phil Westra<sup>2</sup>, Douglas Sammons<sup>1</sup>. <sup>1</sup>Chemistry, Monsanto, Chesterfield, MO, USA; <sup>2</sup>Department of Bioagricultural Sciences and Pest Management, Colorado State University, Fort Collins, CO, USA

*Ryanodine receptor single-channel study of the diamide insecticide, Cyazapyr™.* **Daniel Cordova**<sup>1</sup>, Alan J. Williams<sup>2</sup>. <sup>1</sup>DuPont Crop Protection, Newark, Delaware,

USA; <sup>2</sup>Wales Heart Research Institute, Cardiff University, Cardiff, United Kingdom

*Management of fungicide resistance, mycotoxin production, and food safety risks by modulating molecular targets in fungal pathogens.* **Jong H Kim**, Kathleen L Chan, Larry H Stanker. USDA-ARS, Western Regional Research Center, Albany, CA, USA

### Residues in Food and Feed

*QuEChERS-LC-MS/MS and GCxGC-TOF adaptability for the analysis of beehive products seeking the development of agroecosystems sustainability monitor.* **Silvina Niell**<sup>1</sup>, Florencia Jesús<sup>1</sup>, Cecilia Pérez<sup>1</sup>, Rosana Díaz<sup>4</sup>, Yamandú Mendoza<sup>5</sup>, Michelangelo Anastassiades<sup>3</sup>, Horacio Heinzen<sup>2</sup>, Verónica Cesio<sup>2</sup>. <sup>1</sup>Centro Universitario Paysandú, DQL, PAAP, Universidad de la República, Paysandú, Paysandú, Uruguay; <sup>2</sup>Facultad de Química, DQO, Cátedra de Farmacognosia y Productos Naturales, Universidad de la República, Montevideo, Montevideo, Uruguay; <sup>3</sup>EURL SRM, CVUA Stuttgart, Stuttgart, Germany; <sup>4</sup>DIGEGRA, Ministerio Ganadería Agricultura y Pesca, Montevideo, Uruguay; <sup>5</sup>Apicultura, INIA La Estanzuela, Colonia, Uruguay

*Optimization of SPME coating for food analysis: Applications for high throughput determination of pesticides.* **Erica Aparecida Souza Silva**, Janusz Pawliszyn. Department of Chemistry, University of Waterloo, Waterloo, ON, Canada

*Estimation of uncertainty of sampling for determination of pesticide residues in plant commodities.* **Zsuzsa Farkas**, Kata Kerekes, Zsuzsanna Horváth, Arpad Ambrus. National Food Chain Safety Office Directorate for Food Safety Risk Assessment, Budapest, Hungary

### Stewardship, Regulation, and Outreach

*Working with industry to produce better safety information for farmers and growers.* **Trudyne S Geoghegan**, Matthew T Allen. Applications and Assessment, Hazardous Substances, Environmental Protection Authority, Wellington, New Zealand

*Train Operators to Promote best Practices and Sustainability-PROtection WATER from Diffuse Sources (TOPPS-Prowadis).* **Emilio J González-Sánchez**<sup>1,2</sup>, Julio Román-Vázquez<sup>1</sup>, Emilio Gil-Moya<sup>3</sup>, Montserrat Gallart<sup>3</sup>, Jesus A Gil-Ribes<sup>1</sup>. <sup>1</sup>Department of Rural Engineering, University of Córdoba, ETSIAM, Córdoba 14014, Spain; <sup>2</sup>European Conservation Agriculture Federation (ECAf), Brussels, Belgium; <sup>3</sup>Departamento de Ingeniería, Agroalimentaria y Biotecnología, Universitat Politècnica de Catalunya, Barcelona, Spain

## PAST AWARDEES OF THE BURDICK & JACKSON INTERNATIONAL AWARD

- |      |  |      |  |
|------|--|------|--|
| 1969 | John E. Casida, University of California-Berkley                       | 1980 | Minuro Nakajima, Kyoto University, Kyoto, Japan                  |
| 1970 | Richard D. O'Brien, Cornell University, Ithaca, New York               | 1981 | Philip C. Kearney, USDA-ARS, Beltsville, Maryland                |
| 1971 | Robert L. Metcalf, University of Illinois, Champagne-Urban             | 1982 | Jack R. Plimmer, USDA-ARS, Beltsville, Maryland                  |
| 1972 | Ralph L. Wain, Wye College, University of London,<br>England           | 1983 | Karl Heinz Buechel, Bayer AG, Leverkusen, Germany                |
| 1973 | Hubert Martin, British Crop Protection Council, London,<br>England     | 1984 | Jacques Jean Martel, Roussel Uclaf, Paris, France                |
| 1974 | T. Roy Fukuto, University of California-Riverside                      | 1985 | Junshi Miyamoto, Sumitomo Chemical Co., Japan                    |
| 1975 | Michael Elliot, Rothamsted Experimental Station,<br>Harpenden, England | 1986 | James Tumlinson, USDA-ARS, Gainesville, Florida                  |
| 1976 | Morton Beroza, USDA-ARS (retired), Beltsville, Maryland                | 1987 | Fumio Matsumura, Michigan State University, East<br>Lansing      |
| 1977 | Francis A. Gunther, University of California-Riverside                 | 1988 | Ernest Hodgson, North Carolina State University                  |
| 1978 | Julius J. Menn, Stauffer Chemical Co., Mountain View,<br>California    | 1989 | Toshio Narahashi, Northwestern University, Evanston,<br>Illinois |
| 1979 | Milton S. Schechter, USDA-ARS (retired), Beltsville,<br>Maryland       | 1990 | David Schooley, University of Nevada-Reno                        |
|      |  | 1991 | Stuart Frear, USDA-ARS, Fargo, North Dakota                      |

## PAST AWARDEES OF THE ACS INTERNATIONAL AWARD FOR RESEARCH IN AGROCHEMICALS CO-SPONSORED BY BASF & DUPONT CROP PROTECTION

- |      |  |      |  |
|------|--|------|--|
| 1992 | Bruce Hammock, University of California-Davis  | 2003 | Bob Hollingworth, Michigan State University, East Lansing<br>Hideo Ohkawa, Kobe University, Japan                                  |
| 1993 | Morifuso Eto, Kyushu University, Fukoka, Japan   | 2004 | Stephen Duke, USDA-ARS, Oxford, Mississippi<br>John Marshall Clark, University of Massachusetts-Amherst                            |
| 1994 | Toshio Fujita, Kyoto University, Japan   | 2005 | Robert Krieger, University of California-Riverside<br>Janice E. Chambers, Mississippi State University,<br>Starkville              |
| 1995 | Mohyee Eldefrawi, University of Maryland-Baltimore<br>Koji Nakanishi, Columbia University, New York, New York    | 2006 | Joel Coats, Iowa State University, Ames<br>Isamu Yamaguchi, Agricultural Chemicals Inspection<br>Station, Tokyo, Japan             |
| 1996 | Günther Voss, Ciba, Basel, Switzerland<br>Klaus Naumann, Bayer AG, Leverkusen, Germany                           | 2007 | Gerald T. Brooks, University of Sussex (retired), Brighton,<br>United Kingdom<br>Fredrick J. Perlak, Monsanto, St. Louis, Missouri |
| 1997 | Fritz Führ, Institute of Chemistry and Dynamic, Jülich,<br>Germany<br>Izuru Yamamoto, University of Tokyo, Japan | 2008 | David M. Soderlund, Cornell University, Ithaca, New York   |
| 1998 | George Levitt, DuPont, Wilmington, Delaware<br>Leslie Crombie, University of Nottingham, England                 | 2009 | R. Donald Wauchope, USDA-ARS (retired), Tifton,<br>Georgia   |
| 1999 | Don Baker, Zeneca, Richmond, California<br>James Seiber, University of Nevada-Reno                               | 2010 | Shinzo Kagabu, Gifu University, Gifu, Japan  |
| 2000 | George P. Georghiou, University of California-Riverside<br>Herbert B. Scher, Zeneca, Richmond, California        | 2011 | George P. Lahm, DuPont Crop Science, Newark,<br>Delaware   |
| 2001 | Donald Crosby, University of California-Davis<br>Ralph Mumma, Pennsylvania State University, University<br>Park  |      |  |
| 2002 | Keith Solomon, University of Guelph, Canada<br>Marinus Los, American Cyanamid, Princeton, New Jersey             |      |  |

## PAST AWARDEES OF THE ACS INTERNATIONAL AWARD FOR RESEARCH IN AGROCHEMICALS SPONSORED BY DUPONT CROP PROTECTION

- |      |   |      |  |
|------|---|------|--|
| 2012 | Thomas C. Sparks, Dow AgroSciences, Indianapolis,<br>Indiana                | 2014 | Ralf Nauen, Bayer CropScience, Monheim, Germany  |
| 2013 | René Feyereisen, National Institute of Agronomic<br>Research (INRA), France | 2015 | Keith D. Wing, formerly of Rohm and Haas and DuPont<br>Crop Protection, Wilmington, Delaware |



**CALL FOR NOMINATIONS**  
**ACS INTERNATIONAL AWARD FOR**  
**RESEARCH IN AGROCHEMICALS**  
Sponsored by DuPont Crop Protection

## 2017 Fall ACS National Meeting in Washington, DC

The ACS International Award for Research in Agrochemicals is given to a scientist who has made outstanding contributions to the field of agrochemicals at the international level. Their vision and sustained contributions will have opened new horizons for other investigators in their field and beyond.

- The **nomination letter** will include the following statement: "I hereby nominate [insert first, middle, last name] as a candidate for the ACS International Award for Research in Agrochemicals." It will also include the **nominee's birthplace, date of birth, citizenship, business address**, and a **description** (200 – 1000 words) of the reasons why the nominee should receive this award, stressing the individual's major accomplishments.
- Include a **curriculum vitae** of the candidate that includes: places and nature of employment, professional affiliations, honors and awards received, and a list of publications and patents.
- Nominations often include **one or two letters of support**, although this is optional.

Electronic nominations (as a single pdf file) containing all the listed items should be emailed to:

James N. Seiber  
AGRO Awards Committee Chair  
530-752-1141  
jnseiber@ucdavis.edu

**Deadline:** Nominations should be received by the committee chair by **December 31** of each year. Balloting will be conducted beginning in January, and results will be announced the following spring.

The **nominating official(s)** should be prepared to assist in organizing a symposium at the 2017 Fall National ACS Meeting in honor of the awardee.

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*\* This service is available only for our partnering companies.*



# CALL FOR NOMINATIONS

## ACS AWARD FOR INNOVATION IN CHEMISTRY OF AGRICULTURE

Sponsored by BASF Corporation

### 2016 Fall ACS National Meeting in Philadelphia, Pennsylvania

The ACS Award for Innovation in Chemistry of Agriculture is given to an active researcher working in North America for a chemical innovation that significantly enhances agricultural or veterinary pest management and productivity. The awardee will be asked to give an award address at the National ACS meeting.

The Nomination email will include the following:

1. A **formal letter of nomination** that includes
  - Name, business address, phone and email address of the nominator
  - Name, business address, phone and email address of the nominee
  - A nomination statement (200 – 1000 words) giving reasons why the nominee should receive this award, stressing the chemical innovation and how it has enhanced agricultural or veterinary pest management and productivity
2. The nominee's **current curriculum vitae**
3. One or two **letters of support**
4. Reference or e-mail link to 1 or 2 published **manuscripts that report on the work** which supports the award nomination

Electronic nominations (as a single pdf file) containing all the listed items should be emailed to:

James N. Seiber  
AGRO Awards Committee Chair  
530-752-1141  
jnseiber@ucdavis.edu

**Deadline:** Nominations should be received by the committee chair by **December 31** of each year. Balloting will be conducted beginning in January, and results will be announced the following spring.

The Awardee will be given the opportunity to present his/her work in a special lecture at 252nd National ACS Meeting in August 2016 in Philadelphia.

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### SPECIAL THANKS TO OUR SPONSOR FOR THEIR GENEROUS CONTRIBUTION!



### PAST AWARDEES OF THE ACS AWARD FOR INNOVATION IN CHEMISTRY OF AGRICULTURE

- |      |   |
|------|---|
| 2012 | Steven J. Lehotay, USDA-Agricultural Research Service, Wyndmoor, Pennsylvania |
| 2013 | Jeanette M. Van Emon, US Environmental Protection Agency, Las Vegas, Nevada   |
| 2014 | Scott R. Yates, USDA-Agricultural Research Service, Riverside, California     |





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Department of  
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Research  
Service



## CALL FOR NOMINATIONS

### 2016 STERLING B. HENDRICKS MEMORIAL LECTURESHIP

Sponsored by USDA-Agricultural Research Service

Co-Sponsored by AGFD & AGRO Divisions

The USDA-Agricultural Research Service (ARS) is seeking nominations for the 2016 Sterling B. Hendricks Memorial Lectureship Award. This Lectureship was established in 1981 by ARS to honor the memory of Sterling B. Hendricks and to recognize scientists who have made outstanding contributions to the chemical science of agriculture. Hendricks contributed to many diverse scientific disciplines, including soil science, mineralogy, agronomy, plant physiology, geology, and chemistry. He is most frequently remembered for discovering phytochrome, the light-activated molecule that regulates many plant processes. The lecture should address a scientific topic, trend, or policy issue related to agriculture. The deadline is **November 30, 2015**.

The AGRO Division and the Agricultural & Food Chemistry Division (AGFD) co-sponsor the Lecture which will be held in a joint session of these divisions. The lectureship is presented at an AGFD symposium in even-numbered years and in an AGRO symposium in odd-numbered years. The award includes an honorarium of \$2000, a bronze medallion, and expenses to attend the meeting.

**Nominees** will be outstanding senior scientists in industry, university, consulting, or government positions. *Current ARS employees are not eligible*. The Award will be presented at the 252nd American Chemical Society National Meeting held in 2016 in Philadelphia, Pennsylvania, prior to the Lecture. Giving a presentation is a requirement of the honor.

The **Nomination Package** includes:

- A letter explaining the nominee's contributions to chemistry and agriculture,
- A current *curriculum vitae* (hard copy only)

Nomination letters may be sent electronically to:

Kim Kaplan, Lecture Coordinator  
kim.kaplan@ars.usda.gov

Hard copy nominations and *curriculum vitae* are to be submitted via courier to:

Kim Kaplan, Lecture Coordinator  
ARS Information Office  
Room 1-2253, Mail Stop #5128  
5601 Sunnyside Ave  
Beltsville, MD 20705  
301-504-1637 - phone

## PAST STERLING B. HENDRICKS MEMORIAL LECTURESHIP AWARD WINNERS

- |      |  |      |   |
|------|--|------|---|
| 1981 | Norman E. Borlaug, Nobel Laureate, International Maize and Wheat Improvement Center, Mexico City, Mexico | 1997 | Ernest Hodgson, North Carolina State University, Raleigh                                  |
| 1982 | Warren L. Butler, University of California-San Diego   | 1998 | Morton Beroza, USDA-ARS (retired), Beltsville, Maryland                                   |
| 1983 | Melvin Calvin, Nobel Laureate, University of California-Berkeley   | 1999 | Bruce D. Hammock, University of California-Davis  |
| 1984 | Frederick Ausubel, Harvard Medical School, Boston, Massachusetts   | 2000 | William S. Bowers, University of Arizona, Tucson  |
| 1985 | Alan Putnam, Michigan State University, East Lansing   | 2001 | Malcolm Thompson, USDA-ARS (retired), Beltsville, Maryland                                |
| 1986 | Ralph Hardy, Cornell University and BioTechnica International, Ithaca, New York                          | 2002 | Irvin E. Liener, University of Minnesota, St. Paul  |
| 1987 | Mary-Dell Chilton, Ciba-Geigy Corporation, Research Triangle Park, North Carolina                        | 2003 | Kriton Kleanthis Hatzios, Virginia Polytechnic Institute and State University, Blacksburg |
| 1988 | Bruce N. Ames, University of California, Berkeley  | 2004 | Robert L. Buchanan, Food and Drug Administration, College Park, Maryland                  |
| 1989 | Sanford A. Miller, University of Texas Health Science Center at San Antonio, Texas                       | 2005 | Donald L. Sparks, University of Delaware, Newark  |
| 1990 | Roy L. Whistle, Purdue University, West Lafayette, Indiana   | 2006 | Stanley B. Prusiner, Nobel Laureate, University of California, San Francisco              |
| 1991 | Peter S. Eagleson, Massachusetts Institute of Technology, Cambridge                                      | 2007 | Bruce E. Dale, Michigan State University, East Lansing                                    |
| 1992 | John E. Casida, University of California-Berkeley  | 2008 | Fergus M. Clydesdale, University of Massachusetts-Amherst                                 |
| 1993 | Philip H. Abelson, Deputy Editor, <i>Science</i> , and Scientific Advisor to AAAS, Washington, DC        | 2009 | Charles J. Arntzen, Arizona State University-Tempe  |
| 1994 | Wendell L. Roelofs, Cornell University, Ithaca, New York   | 2010 | Chris Somerville, Director of the Energy Biosciences Institute, Berkeley, California      |
| 1995 | Winslow R. Briggs, Carnegie Institution of Washington, Stanford, California                              | 2011 | Deborah P. Delmer, University of California-Davis   |
| 1996 | Hugh D. Sisler, University of Maryland, College Park   | 2012 | Eric Block, University at Albany, State University of New York                            |
|      |  | 2013 | Keith Solomon, University of Guelph, Canada   |
|      |  | 2014 | Robert T. Fraley, Monsanto, Company, St. Louis, Missouri                                  |

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# CALL FOR NOMINATIONS

## 2016 KENNETH A. SPENCER AWARD

### Sponsored by ACS KANSAS CITY SECTION

The Kansas City Section of the American Chemical Society is soliciting nominations for the 2015 Kenneth A. Spencer Award. The award recognizes meritorious contributions to the field of agricultural and food chemistry. The Kansas City Section presents this award in the hope that it will give added stimulus in research, education, and industry to further progress in agricultural and food chemistry. The award has been awarded annually in Kansas City since 1955 and carries an honorarium of \$6,000. At this meeting the recipient will deliver an address, preferably upon the subject of the work for which they have been recognized. Subsequently, that address will be published, if possible, in an appropriate journal. The Kansas City Section will reimburse the recipient and spouse for round-trip travel expenses to Kansas City for the presentation.

To be eligible for the award, a candidate must be a citizen of the United States and must have done the work for which he or she qualifies as a candidate within the United States. The candidate need not be a member of the American Chemical Society. A candidate's work, whether it be done in education, industry or research, should have meritoriously contributed to the advancement of agricultural and food chemistry.

The nomination shall include a biographical sketch of the nominee containing minimum vital statistics, parents' names, education and professional experience; a list of published papers and patents; a specific identifying statement of the work on which the nomination is based; and an evaluation and appraisal of the nominee's accomplishments with special emphasis on the work to be recognized by the award.

The nomination form can be found at  
[http://cas.umkc.edu/chemistry/kcacs/spencer/AwardLogistics/spencer\\_nomination.pdf](http://cas.umkc.edu/chemistry/kcacs/spencer/AwardLogistics/spencer_nomination.pdf)

Send nomination by November 15, 2015 to:

Kenneth A. Spencer Award  
Kansas City Section of ACS  
c/o Eckhard Hellmuth  
Department of Chemistry  
University of Missouri- Kansas City  
5100 Rockhill Road  
Kansas City, MO 64110  
816-235-2290 - phone

## PAST KENNETH A. SPENCER AWARD WINNERS

1955	Ralph M Hixon, Iowa State University	1985	Bruce N. Ames, University of California-Berkeley
1956	Conrad A Elvehjem, University of Wisconsin	1986	John M. Brenner, Iowa State University
1957	William C Rose, University of Wisconsin	1987	Hector F. DeLuca, University of Wisconsin-Madison
1958	EV McCollum, Johns Hopkins University	1988	Boyd L. O'Dell, University of Missouri-Columbia
1959	Karl Folkers, Merck, Sharpe & Dohme Res. Labs.	1989	Robert H. Burris, University of Wisconsin
1960	CH Bailey, University of Minnesota	1990	John E. Kinsella, University of California-Davis
1961	HL Haller, USDA-Agricultural Research Service	1991	George Levitt, DuPont Experimental Station
1962	AK Balls, USDA-Agricultural Research Service	1992	Clarence A. Ryan, Jr., Washington State University
1963	CC King, Rockefeller Foundation	1993	Bruce Hammock, University of California-Davis
1964	Daniel Swern, Temple University	1994	William S. Bowers, University of Arizona
1965	Aaron M. Altschul, USDA-Agricultural Research Service	1995	Robert T. Fraley, Ceregen, A Unit of Monsanto Co.
1966	Robert L. Metcalf University of California-Riverside	1996	James N. BeMiller, Purdue University
1967	Melville L. Wolfrom, The Ohio State University	1997	William M. Doane, USDA-Agricultural Research Service
1968	Herbert E. Carter, University of Illinois	1998	Mendel Friedman USDA-Agricultural Research Service
1969	Edwin T. Mertz, Purdue University	1999	James A. Sikorski, Monsanto Co.
1970	Lyle D. Goodhue, Phillips Petroleum Company	2000	Wendell L. Roelofs, Cornell University
1971	William J. Darby, Vanderbilt University	2001	James Tumlinson USDA-Agricultural Research Service
1972	Emil M. Mrak, University of California-Davis	2002	Daniel W. Armstrong, Iowa State University
1973	Esmond E. Snell, University of California-Berkeley	2003	Eric Block, University at Albany, State Univ. New York
1974	Roy L. Whistler, Purdue University	2004	Steven D. Aust, Utah State University
1975	Thomas H. Jukes, University of California-Berkeley	2005	Don R. Baker, Berkeley Discovery Inc.
1976	E. Irvine Liener, University of Minnesota	2006	Russell Molyneux, USDA-Agricultural Research Service
1977	N. Edward Tolbert, Michigan State University	2007	David A. Schooley, University of Nevada-Reno
1978	John E. Casida, University of California-Berkley	2008	Ron G. Buttery, USDA-Agricultural Research Service
1979	Charles W. Gehrke, University of Missouri-Columbia	2009	George P. Lahm, DuPont Crop Protection
1980	George K. Davis, University of Florida-Gainesville	2010	Clive A. Henrick, Trece, Inc.
1981	John Speziale, Monsanto Agricultural Products Co.	2011	Michael W. Pariza, University of Wisconsin-Madison
1982	Howard Bachrach, USDA-Agricultural Research Service	2012	James N. Seiber, University of California-Davis
1983	Peter Albersheim, University of Colorado	2013	Attila Pavlath, USDA-Agricultural Research Service, ret.
1984	Richard H. Hageman, University of Illinois	2014	Ronald Horst, USDA-Agricultural Research Service, ret.





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# JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY

## CALL FOR NOMINATIONS 2016 RESEARCH ARTICLE OF THE YEAR AWARD LECTURESHIP AWARDS

Sponsored by The Journal of Agricultural and Food Chemistry

Co-sponsored by AGFD & AGRO Divisions

The *Journal of Agricultural and Food Chemistry (JAFC)* and the ACS Divisions of Agricultural and Food Chemistry (AGFD) and Agrochemicals (AGRO) are seeking nominations for the Research Article of the Year Award Lectureship.

Two papers will be awarded, one from each category, for an outstanding article published in 2015 (either in an issue of *JAFC* or *ASAP*) that demonstrates creativity and impact on agricultural and food chemistry as a whole.

### Each winner will receive:

- An award plaque
- \$1000 USD
- Travel expenses up to \$1250 USD to attend the Fall 2015 ACS National Meeting in Boston, Massachusetts

### Nominations should include:

- Name, affiliation, and e-mail address of the nominator
- Nominee's article title and DOI (hyperlinked to the article if possible)
- Name, affiliation, and e-mail address of the corresponding author (no self-nominations)
- A statement of why the article is outstanding (< 500 words)
- Suggestion of a category AGFD or AGRO
- The words "JAFC nomination" in the title of the email

### Nominees will be divided into two categories:

- Agrochemicals (pesticides, biofuels and biobased products, and related)
- Agricultural and food chemistry (food, health, and related).

This will be subject to the discretion of the Editor-in-Chief.

The winners will be announced in early 2016, and the award will be presented at the Fall 2016 ACS National Meeting held in August in Philadelphia.

Send your nominations to  
jafcaward@acs.org

**Deadline for nominations  
December 31, 2015**





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# CALL FOR APPLICANTS

## AGRO DIVISION

### 2015 NEW INVESTIGATOR AWARD

Sponsored by Dow AgroSciences

## 2015 Fall ACS National Meeting in Boston, Massachusetts

The AGRO Division seeks nominations for the New Investigator Award (NIA) to be awarded at the ACS meeting in Boston in August 2015. The purpose of the New Investigator Award is to recognize scientists who have obtained a doctoral degree and are actively conducting academic, industrial, consulting, or regulatory studies.

The Division is interested in work on all aspects of agrochemicals which are broadly defined to mean pesticides of all kinds (e.g., chemical pesticides, biopesticides, pheromones, chemical attractants, fumigants, plant incorporated protectants, disinfectants) as well as biotechnology-derived crops (e.g., Bt crops, Roundup Ready crops, etc.). The categorical areas of

study related to agrochemicals are very broad and encompass environmental chemistry, toxicology, exposure assessment, risk characterization, risk management, and science policy. Studies of veterinary pharmaceuticals and antibiotics are included in the Division's mission. The Division encourages submissions related to public health protection as well as crop, livestock, aquaculture, and wildlife protection.

AGRO is also interested in the environmental chemistry and effects resulting from agricultural production (e.g., soil processes, water/air quality) and in chemical products made from agricultural commodities and byproducts. This includes biofuels and bioproducts and the issues surrounding their production and use.

#### The Process:

- To be eligible for the award, the scientist must have obtained his or her doctorate no more than five years before the time of the Fall ACS National Meeting. Thus, for 2015, applications will be considered from **scientists who have obtained their doctorates no earlier than the year 2010**.
- A panel consisting of at least three AGRO members will choose up to three finalists based on their extended abstracts, 1-page *curricula vitae*, and letter(s) of recommendation.
- **Each finalist will receive up to \$1275 for travel and meeting expenses.**
- Each finalist will deliver an oral presentation (which will be judged by the panel) in one of the AGRO Program symposia. The winner, who will receive a plaque, will be chosen after all finalists have presented their papers.

#### Deadline:

The extended abstract, *curriculum vitae*, and letter(s) must be received by the New Investigator Award (NIA) Coordinator no later than March 16, 2015.

#### For more information, please contact:

Steven J. Lehotay, NIA Coordinator  
USDA-Agricultural Research Service  
steven.lehotay@ars.usda.gov

#### To Apply for the New Investigator Award:

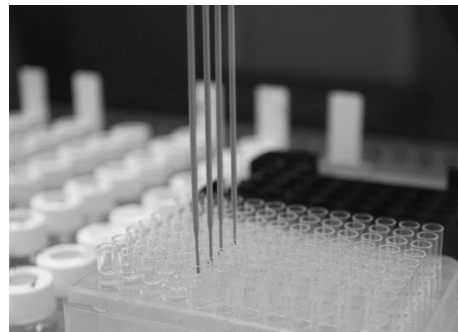
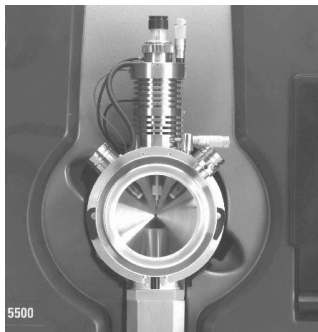
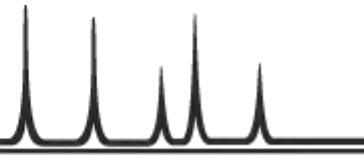
1. Submit a **300-word abstract** to a symposium in the AGRO Division using the ACS Meeting Abstracts Programming at <http://maps.acs.org/>
2. Submit an **extended abstract (maximum 2 pages) describing the candidate's research/studies** to the NIA Coordinator. Include the impact (or potential impact) of the results as it pertains to issues of concern to AGRO.
3. Submit a 1-page **curriculum vitae**.
4. Submit at least **one letter of recommendation** from a current supervisory scientist (e.g., post-doctoral mentor, a business manager, departmental chair).
5. Deliver an oral presentation in an appropriate symposium at the 250th ACS National Meeting in Boston.

---

*The AGRO Division is grateful for the sustained support of the AGRO New Investigator Award*



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Support for Poster Presentations

**2015 Fall ACS National Meeting in Boston, Massachusetts**

The AGRO Division has established an endowment fund in collaboration with Bayer CropScience that will be used to promote an understanding of the role of chemistry in agriculture. To address this goal, awards will be made through the Division's Education Committee.

Proposals are sought for the 2015 awards. Selected undergraduate and graduate students will be awarded up to \$600 each to help defray costs of attendance to give poster presentations at the 250th ACS Fall National Meeting which will be held August 16-20, 2015, in Boston, Massachusetts. Posters will be displayed in a special poster session of the ACS AGRO Division. First, Second, and Third place winners will receive an additional cash award.

The subject of the presentation should pertain to the chemistry of the AGRO Division. Topics should relate to pest management chemistry including synthesis, metabolism, regulatory, risk assessment, biotechnology, resistance, mode of action, residues, delivery, fate/behavior/transport, and agronomic practices. The AGRO Division is also interested in chemical products made from agricultural commodities and byproducts, including biofuels, and the issues surrounding their production.

**To apply, a graduate student should submit the following to be received no later than March 16, 2015:**

1. A **300-word abstract** formatted according to the directions given at the ACS Meeting Abstracts Programming System (<http://maps.acs.org>). Be sure to include name of the applicant, applicant's address, and applicant's e-mail address.
2. A two page extended abstract giving more detail of the research/presentation. For a sample extended abstract, visit <http://www.agrodiv.org/graduate-students/>
3. A short letter of nomination from the faculty advisor.

Submit item 1 to the ACS abstract submission website  
<http://maps.acs.org/>

Submit items 2 and 3 as a Word or pdf file to our new posters email. Items sent to the coordinators directly will no longer be accepted.

**[posters@agrodiv.org](mailto:posters@agrodiv.org)**

**For more information, please contact the co-organizers:**

Marja Koivunen  
California State University, Chico  
College of Agriculture  
Chico, CA 95929-0310  
tel: 530-574-1837  
email: mekoivunen@gmail.com

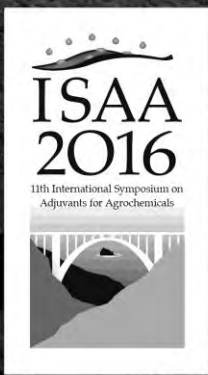
Diana Aga  
Chemistry Department, NSC 611  
University of Buffalo  
Buffalo, NY 14260  
tel: 716-645-4220  
email: dianaaga@buffalo.edu

*Abstracts will be reviewed by the Education Committee.  
Submitters will be notified of their selection status in May 2015.*

*Special thanks to our sponsor for  
their generous contribution!*



**Bayer CropScience**



Creating, Bridging,  
and Sharing the Values  
of Adjuvant Technology

## ***Calls for Sponsorship and Abstracts***

**11<sup>th</sup> International Symposium on Adjuvants for Agrochemicals**

**20-24 June 2016**

**Monterey, California, USA**

**Please join us in Monterey in 2016 in one of two ways:**

**Contacting the organizers to find out how your company can be showcased at this premier event or**

**By submitting an abstract on our submission page accessible from [www.isaa2016.org](http://www.isaa2016.org)**

**between 1 January and 20 June 2015!**

### **Purpose of Symposium**

ISAA 2016 will bridge together more than 450 adjuvant professionals from industry, academia and national laboratories working in all areas of agrochemicals, from crop protection formulations to new application technologies.

We will highlight novel adjuvant chemistries (both within formulations and as mixed into applications) essential to good product designs that enable efficient crop protection and minimize undesired outcomes.

With new and changing technological tactics and issues external to the industry (demand for sustainable technologies, changing regulatory environment, resistance, extreme weather, etc.), science in agrochemical adjuvants are indeed bridging mankind toward agriculture's important goal of feeding a more populated and prosperous world.

### **Alongside these traditional general sessions:**

- Biological performance, use and application
- Modeling, methods, and mode of action
- Formulation and adjuvant technology

### **We will highlight and encourage scholarship in these particular issues:**

- Green and sustainable formulations
- Formulations for plant nutrition enhancement
- Technologies for uptake into targets
- Technologies for enhanced tank mix compatibility
- New perspectives on application timing and tactics, including seed coating, triggered and timed release
- Old chemistries resurrected through new formulations
- Reducing undesired outcomes and risks such as spray drift
- Water and heat stress management
- Regulatory issues germane to North America and California

### **For further information, contact the organizers**

**Solito Sumulong**, ISAA 2016 Organizing Chair, Winfield, LLC, River Falls, WI, USA, +1 651-236-7224, [SASumulong@landolakes.com](mailto:SASumulong@landolakes.com)

**Andrew Malec**, ISAA 2016 Scientific Chair, Advanced BioCatalytics, Irvine, CA, USA, +1 949-394-0352, [amalec@abiocat.com](mailto:amalec@abiocat.com)

# Notes from the Program Chair

*Pamela J. Rice*

Plans are underway for an exciting and robust program for the 250<sup>th</sup> National ACS Meeting and Exposition in Boston, August 16-20, 2015. We are building upon the success and international outreach of last year's combined meeting with the 13<sup>th</sup> IUPAC International Congress of Pesticide Chemistry. For Boston, we have 35 proposed symposia organized by 84 scientists from the United States and abroad, representing academia, government and private sectors. Twelve of the symposia are related to the ACS National Meeting Theme for Boston, ***Innovation from Discovery to Application***. I thank our dedicated and enthusiastic symposia organizers for their expertise, time, and effort in leading this scientific exchange.

AGRO's diverse scientific interests representing "*Chemistry from and for Agriculture*" has resulted in a growing number of symposia interacting with scientists across ACS divisions and other scientific societies. To date, 29 of AGRO's proposed symposia for Boston will be cosponsored by eight other divisions of ACS or a fellow scientific society, the Society of Environmental Toxicology and Chemistry (SETAC). This includes a joint effort between SETAC and the AGRO and ENVR Divisions of ACS in a special symposium and survey designed to gather feedback from meeting attendees in identifying the global research needs for sustainable environmental quality. To encourage intra-division, inter-division, and inter-society scientific exchange, AGRO is seeking approval from ACS to provide full-day poster sessions. This was the format of the IUPAC Congress, which resulted in unanimous positive feedback from our membership.

AGRO's tradition of hosting a large number of oral symposia continues at the Boston meeting. This is the result of coordinated effort between the Standing Program Champions and the Division's Vice Chair, who serves as Program Committee Chair. In 2015, Jay Gan of University of California-Riverside fills this role. He will lead organization of AGRO's programming in 2016. The Programming Committee continues to increase its membership and welcomes those interested in serving as a Program Champion for any of AGRO's 15 technical topics. I thank all Champions who have served the Division in this important capacity.

In Boston, we will also recognize the achievements of our colleagues in agrochemical research through our award symposia and lectures. **Keith D. Wing** formerly of Rohm & Haas and DuPont Crop Protection will receive the ACS International Award for Research in Agrochemicals, sponsored by DuPont Crop Protection. The winner of the **ACS Innovation Award in**

**Chemistry of Agriculture**, sponsored by BASF, will be announced shortly and will present in a selected symposium. AGRO will also host the **Sterling B. Hendricks Memorial Lecture**, which is sponsored by the USDA-ARS and is co-hosted by AGFD Division; the winner will be announced in late February.

Diana Aga and Marja Koivunen are organizing the **AGRO Education Awards** and Steven Lehotay the **AGRO New Investigator Award (NIA) Competition**. The three NIA finalists will be preselected from the applications. The plan is for both the NIA finalists and Education Poster Award winners to present in symposia of their choice, and all will receive travel grants.

As you can see, AGRO will be hosting a large number of oral symposia this year, so the General Session, *Protection of Agricultural Productivity, Public Health, and the Environment*, will be posters only.

Once again we welcome and rely on the expertise of Peney Patton (ppatton@agrodiv.org), Program Secretariat for AGRO and ENVR. Thank you Peney for all of your help in making our 2014 and 2015 programs a success!

If you are attending the **ACS National Meeting in Denver** in March, check out these symposia co-sponsored by AGRO.

#### AGFD

- Medicinal and Aromatic Crops: Production, Phytochemistry, and Utilization
- Phenolic and Polyphenolic Chemistry in Food Processing

#### ENVR

- Advances in Analytical Chemistry for Discovering Emerging Contaminants in the Natural Environment
- Assessing Toxicity of Environmental Contaminants
- Environmental Reactivity of Organic Micropollutants and Their Transformation Products in Receiving Waters
- Microalgae: A Renewable Energy Source and a Sustainable Solution for the Environment
- Surface Physicochemical Processes in Engineered and Natural Systems
- Water Recycling in Domestic Use, Energy Extraction, and Agricultural Use

#### PRES

- Nanotechnology: Delivering on the Promise

I hope to see you in Boston and look forward to an exciting five days of science and interacting with colleagues and friends.

#### \*\*\*\*\* PLEASE NOTE \*\*\*\*\*

Beginning in 2015, ACS initiated a new abstract programming system, MAPS. All abstracts (300 words or less, figures = 70 words) must be submitted on-line.

<http://maps.acs.org>

January 19, 2015 - March 16, 2015 (10 EDT)

**THE ABSTRACT CLOSING DATE AND TIME ARE FINAL  
NO EXTENTIONS**

We **strongly encourage** early submittal of abstracts to allow for delays often encountered when working with new software.





**List of Symposia**  
**250<sup>th</sup> ACS National Meeting & Exposition**  
**August 16-20, 2015, Boston, Massachusetts USA**  
***Innovation from Discovery to Applications***

Each year, in addition to our traditional award/tribute symposia, the AGRO Division programs specific symposia in most, but not all, of our fifteen standing programming areas. Presentations for those standing program areas not included in listed symposia

#### **Awards and Tributes**

- ACS International Award for Research in Agrochemicals: Innovation in Metabolism, Bioavailability, and Formulations Research Leading to the Discovery of Agrochemicals. Symposium honoring Dr. Keith D. Wing \*\*
- Insecticide Action on Ion Channels: A Tribute to Prof. Toshio Narahashi \*\*

#### **General Session**

- Protection of Agricultural Productivity, Public Health and the Environment (posters only)

#### **Standing Programming**

##### **Advances in Agrochemical Residue, Analytical and Metabolism Chemistry, and Metabolomics**

- Advances in Pesticide Residue Analysis: Innovations that Lead to Novel Applications \*\*
- Data to Decisions: Software Solutions for Modern Analytical Workflows \*\*
- Immunoassays and Other Bioanalytical Techniques (Immunochemistry Summit XII) \*\*

##### **Agrochemical Toxicology and Mode of Action**

- Current Advances and Challenges of Arthropod Vector Control

##### **Biorationale Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture**

- Biochemical Biopesticides: Discovery and Regulation of New and Potential Products \*\*
- Host Plant Volatiles and Chemotaxonomy for Predicting Host Range of Invasive Species Biocontrol Agents
- Metabolites from Endophytic Microorganism to Combat Biotic Stress in Crop Plants

##### **Discovery and Synthesis of Bioactive Compounds**

- Agrochemicals: Innovations in Discovery and Process Chemistry \*\*

##### **Ecosystem and Human Health/Exposure and Risk Assessment**

- Biomonitoring for Pesticide Exposures
- Current Topics in Food and Crop Allergens \*\*
- Development of More Efficient Pesticide Exposure Screening Informed by Fate, Usage, and Monitoring Data
- Endangered Species Risk Assessment for Pesticides: Advances in Methods and Process
- Global Research Needs: Identifying and Prioritizing Efforts to Sustain Environmental Quality

are grouped in AGROs general poster session. Some of the symposia are also designated (\*\*) as part of the ACS National Meeting thematic programming.

- Latest Trends in Environmental Fate and Exposure Assessments: Filling in Knowledge and Data Gaps across the Commodity Groups
- Pesticide Dose: Effects on the Environment and Target and Non-Target Organisms
- Pesticide Residues in Latin America: Ecotoxicology and Environmental Sustainability
- Pollinators and Agrochemicals

##### **Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals**

- Degradation of Halogenated Compounds in the Environment
- Environmental Fate, Management, and Mitigation of Nitrogen in Agricultural Systems
- Environmental Fate, Transport, and Modeling of Agricultural Chemicals
- Lysimetric Studies and Point Source Contamination by Leaching
- Pesticides and Hydrophobic Compounds in Sediment
- Structure Elucidation in Metabolism Studies: Plant, Animal, Fish and Soil

##### **Formulations and Application**

- Current Topics in Seed Treatment \*\*
- Formulation Technologies for Improved Crop Protection \*\*
- Spray Application Technology

##### **Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial and Worker Protection Products**

- Antibiotics in Agricultural Ecosystems: Fate, Treatment, Analysis, and Ecological Effects

##### **Regulatory Harmonization, and MRLs**

- Combining Scientific Evidence for Health Policy and Regulation
- Feeding the World Requires Pesticides and Maximum Residue Levels
- Recent Advances in the Analysis of Environmental Contaminants in Foods and Feeds \*\*

##### **Technological Advances and Applications in Agricultural Science (e.g., Nanotechnology, Genetically-modified Organisms, and Biocontrol Agents)**

- GMOs and the Entanglement of Intellectual Property Rights \*\*

##### **Urban Agriculture: Turf, Ornamentals, Household Products, and Water-Re-Use**

- Urban Agriculture: Turf, Ornamentals, Household Products, and Water-Re-Use



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***ACS International Award for Research in Agrochemicals***

***Innovation in Metabolism, Bioavailability, and Formulations Research  
Leading to the Discovery of Agrochemicals***

***Symposium Honoring Dr. Keith D. Wing***

Financially Sponsored by DuPont Crop Protection

**Purpose of Symposium**

This symposium will recognize the research and accomplishments of Dr. Keith D. Wing (formerly of Rohm & Haas and DuPont Crop Protection) in the field of insecticide discovery. Dr. Wing will be awarded the 2015 ACS International Award for Research in Agrochemicals.

**Suggested Topics**

- Application of new bioavailability and computational research to the discovery of conventional pesticides and biopesticides
- Approaches to metabolism research used in the discovery of conventional pesticides and biopesticides
- Approaches to formulations used in the discovery of conventional pesticides and biopesticides

**For further information, contact the organizers:**

Thomas C. Sparks, Dow AgroSciences, USA, 317-337-3046, tcsparks@dow.com  
Jerry M. Green, Green Ways Consulting, 610-274-3054, jerry.m.green@greenwaysconsulting.com  
Beth A. Lorsbach, Dow AgroSciences, USA, 317-337-3073, balorsbach@dow.com

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***Advances in Pesticide Residue Analysis: Innovations that  
Lead to Novel Applications***

**Purpose of Symposium**

Requirements for analytical methods used in residue analysis are rapidly changing globally for both consumer and environmental safety assessments. Consequently, development of analytical methods is becoming more challenging as guidelines require more sensitive and selective methods with lower limit of quantitation. This symposium will focus on recent advances in analytical method development, GLP validation requirements, and innovative methods that meet the challenges of new global guideline requirements and that affect changes from both new and ongoing feedback from authorities. The various types of residue methods that are used in analytical methods for risk assessment and environmental and food monitoring will also be a part of the discussions.

This symposium will generate communication about approaches to develop methods, guideline requirements, and analytical innovation to provide cost-effective, high throughput and high quality methods of analysis with expanded analytical scope. Representatives from industry, academia, and government are invited to share their perspective on analytical method development and validation approaches. The symposium will encourage discussion and debate about the different approaches to provide analytical data for global safety assessments. Other ACS divisions that may benefit from this symposium are ANYL, ENVR, and AGFD.

**For further information, contact the organizers:**

Manasi Saha, BASF, 919-547-2232, manasi.saha@basf.com  
Kari Lynn, Dow AgroSciences, 317-337-7067, kjlynn@dow.com  
Leah Riter, Monsanto Company, 314-694-7389, lsriter@monsanto.com

**Suggested Topics**

- Streamlining method development (lean/6-sigma, crop grouping approaches, application of new technologies)
- Challenging analytical methods (problem-solving in unusual matrices or unique molecular properties of analytes) – successes and failures
- Developing multiplexed methods: more analytes, more matrices
- How to develop analytical methods that will meet global requirements (data generation or enforcement)
- Development or implementation of method automation for routine analysis
- Instrument utilization for registration or enforcement
- Innovative analytical tools for residue analysis
- Multi-residue methods for residue analysis; advantages and limitation
- Extraction techniques to match the extraction from metabolism studies

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***Agrochemicals: Innovations in Discovery and Process Chemistry***

**Purpose of Symposium**

This symposium will highlight recent research in the discovery synthesis and process chemistry of agrochemicals. This symposium is ideal for organic and/or medicinal chemists who are interested in gaining an understanding of discovery chemistry as well as early/late stage route development and scale up.

Takeaways from this symposium include realizing the importance of SAR's, understanding the difference between discovery and process chemistry route selection, and appreciating new work up techniques and scale up tactics.

**Suggested Topics**

- Development of discovery or process synthetic routes for crop protection
- Design, isolation, synthesis, biology, and/or structure-activity relationships of new chemistry targeting crop protection
- Process chemistry
- Insecticides: agronomic, urban or animal health
- Herbicides
- Fungicides
- Nematicides

**For further information, contact the organizers:**

Beth Lorsbach, Dow AgroSciences LLC, 317-337-3073, balorsbach@dow.com  
Michelle Riener, Dow AgroSciences LLC, 317-337-5720, mriener@dow.com  
Tony Trullinger, Dow AgroSciences LLC, 317-337-5008, ttrullinger@dow.com

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***Antibiotics in Agricultural Ecosystems: Fate, Treatment,  
Analysis, and Ecological Effects***

**Purpose of Symposium**

Concern over the use of antibiotics in agriculture is growing worldwide due to the increased emergence of antibiotic resistance in bacteria that do not themselves cause disease, but can share the resistance genes to pathogenic bacteria. This symposium will focus on the advances in analysis and fate of antibiotics used in agriculture, and on new studies that will advance our understanding of the ecological impacts of antibiotics in the environment.

New sensitive analytical instrumentations have improved our ability to detect trace antibiotics in complex matrices significantly. However, many questions remain unanswered regarding biotic and abiotic processes that govern the fate and ecological effects of the antibiotics in the environment. Knowledge on the transformations, bioaccumulation, and long-term effects of antibiotics on the agricultural ecosystems is still lacking.

This session will encourage exchange of ideas between chemists, engineers, industrial scientists, and policy makers that could improve our understanding of the processes surrounding the fate and reactions of antibiotics in the agricultural environment. New information on the fate of antibiotics and their transformation products, and finding effective treatment processes to eliminate antibiotics in the environment are key to combating the proliferation of antibiotic resistance and spread of antibiotic resistance genes in agricultural environments. Submissions are encouraged from delegates of all ACS divisions.

**For further information, contact the organizers:**

Diana S. Aga, University at Buffalo, The State University of New York, 716-645-4220, [dianaaga@buffalo.edu](mailto:dianaaga@buffalo.edu)  
Joshua Wallace, University at Buffalo, The State University of New York, 716-645-4217, [jswallac@buffalo.edu](mailto:jswallac@buffalo.edu)

**Suggested Topics**

- Occurrence and fate of veterinary antibiotics in environmental and biological samples
- Advances in the extraction and analysis of antibiotics in environmental samples and animal wastes
- Antibiotic Resistance Genes (ARGs) as contaminants of emerging concern
- Strategies for mitigation of ARGs and antibiotics in contaminated soil, manure, and biosolids
- Identification and tracking of transformation products of antibiotics during biotic and abiotic processes
- Uptake of antibiotics by food crops
- Modeling of fate and transport in the environment

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***Biochemical Biopesticides: Discovery and Regulation of  
New and Potential Products***

**Purpose of Symposium**

Biochemical biopesticides, as defined by the US EPA, are naturally occurring substances (compounds) that control pests by non-toxic mechanisms. The number and use of such products is growing rapidly, as is the number of small companies involved in this industry. The larger agrochemical companies have begun to invest significantly in this part of the pest management industry.

This symposium will provide an update on all aspects of biochemical biopesticides, including new products, potential new products, economics, environmental impact, discovery strategies, and modes of action.

**Suggested Topics**

- Bioinsecticides
- Biofungicides
- Bioherbicides
- Other categories of biopesticides
- Regulation of biopesticides
- Economics of biopesticides
- Modes of action of biopesticides
- Discovery strategies for biopesticides
- Meshing conventional pesticides and biopesticides
- Environmental impact of biopesticides

**For further information, contact the organizers:**

Stephen O. Duke, USDA-ARS, 662-915-1036, sduke@olemiss.edu  
Aaron D. Gross, University of Florida, 352-294-5166, adgross@epi.ufl.edu  
Joel Coats, Iowa State University, 514-294-4776, jcoats@iastate.edu  
Charles L. Cantrell, USDA-ARS, 662-915-5898, charles.cantrell@ars.usda.gov

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***Biomonitoring for Pesticide Exposures***

**Purpose of Symposium**

Exposure assessment for pesticides typically focuses on sources, fate and transport, and environmental concentrations in various media. However, these studies do not directly address the internal dose taken up by a receptor that can cause adverse outcomes. Directly measuring exogenous chemicals, such as environmental contaminants and their metabolites, or endogenous compounds in biofluids shows how the human body interacts with the environment, can confirm environmental exposures, and can provide the potential to estimate internal dose and potential health risks.

Interpreting biomonitoring results requires information from exposure research, toxicology, pharmacokinetics, and epidemiology. Regardless of the availability of these types of information, using biomonitoring to understand exposure, to conduct risk assessments, and to apply for regulation is complex, lacks a well vetted framework or workflow, and has not been widely used or accepted. This symposium will discuss several key aspects of biomonitoring for pesticides from the perspective of industry, government, and academia.

**Suggested Topics**

- Biomonitoring methods and studies for pesticides and related compounds
- Exploring relationships with metabolomics and diagnostic metabolites
- Comparing biomarker concentrations between biological fluids
- Linking biomarkers to exposure, dose, and adverse outcomes
- Understanding pharmacokinetics of biomarkers
- Using models to predict biomarker behavior
- Integrating biomonitoring data into risk assessments
- Applying biomonitoring information to regulations
- Evaluating health impacts from pesticides in the context of environment-wide association studies
- Using biomonitoring equivalents to evaluate health risks
- Biomonitoring to establish a link between exposure time and risk

**For further information, contact the organizers:**

Jim Seiber, University of California, Davis, USA, 503-752-1141, [jnseiber@ucdavis.edu](mailto:jnseiber@ucdavis.edu)  
Jeff Driver, riskSciences.net, LLC, USA, 571-428-2900, [driverjh@comcast.net](mailto:driverjh@comcast.net)  
Sean Hays, Summit Toxicology, USA, 303-747-0722, [shays@summittoxicology.com](mailto:shays@summittoxicology.com)  
Bob Krieger, University of California, Riverside, USA, 951-827-3724, [bob.krieger@ucr.edu](mailto:bob.krieger@ucr.edu)  
Joachim Pleil, US EPA, 919-541-4680, [pleil.joachim@epa.gov](mailto:pleil.joachim@epa.gov)  
Jon Sobus, US EPA, 919-541-2232, [sobus.jon@epa.gov](mailto:sobus.jon@epa.gov)  
Elin Ulrich, US EPA, 919-541-3717, [ulrich.elin@epa.gov](mailto:ulrich.elin@epa.gov)

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***Combining Scientific Evidence for Health Policy and Regulation***

**Purpose of Symposium**

Health risk policy and regulatory decisions – including the determination of causation and establishment of safe exposure levels – should be based on sound science: evidence from toxicology, mechanistic studies, exposure science, epidemiology, and risk assessment. While the critical assessment of the published literature is key to deriving scientific support for causation or for practical decision-making, most processes focus on the component parts (epidemiology, animal bioassays, mechanistic data, exposure assessments) and not on how evidence from different lines of inquiry is best combined or integrated.

While “weight of evidence” procedures are often used, their application has not been consistent, and approaches used by regulatory agencies and other decision-making bodies differ considerably. Derivation of a standard approach to integrating evidence will be challenging. However, this symposium will provide an initial step that will engage a range of representatives from the health sciences, policy/decision-making, and regulated communities to identify, evaluate, and begin to apply methods for integrating evidence, including innovative approaches not typically used in support of public health policy formulation. In addition to AGRO, this symposium is of interest to TOXI and CHAS.

**Suggested Topics**

- Role of weight of evidence (WoE) in risk assessment
- Primer on causation: contributions from philosophy of science
- Review of current practices: EPA, OSHA, NIEHS, and IARC
- Approaches to evidence integration: Bayesian belief networks, multi-criteria decision-making, mode of action/human-relevance framework, “extended” hill criteria, hypothesis-based weight of evidence
- Innovative approaches to combining evidence
- How to address uncertainty and incongruities
- Perspectives: regulatory and policy communities
- Perspectives: regulated communities
- Perspectives: scientific communities
- Case studies

**For further information, contact the organizer:**

Kenneth A. Mundt, ENVIRON International, USA, 413-835-4360, kmundt@environcorp.com

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***Current Advances and Challenges of Arthropod Vector Control***

**Purpose of Symposium**

Vector control strategies are continuously changing as chemistries become increasingly complex, and novel modes of action are identified to combat significant challenges, such as insecticide resistance. This symposium will provide an overview of the current state of knowledge and latest advances regarding an array of topics including insecticide and repellent physiology, biochemistry, genetics, and resistance management.

The aim is to provide post-doctoral fellows and early career scientists a platform to present their latest research results and promote the future directions of arthropod vector control. This symposium will not only disseminate groundbreaking research to the scientific community, but will provide networking opportunities with potential collaborators and future employers.

**For further information, contact the organizers:**

Daniel Swale, Vanderbilt University, 757-719-2307, [dswale@gmail.com](mailto:dswale@gmail.com)  
Lacey Jenson, Virginia Tech, 540-231-0498, [ljenson@vt.edu](mailto:ljenson@vt.edu)

**Suggested Topics**

- Toxicological and pharmacological approaches to insecticide discovery
- Insect repellent and excito-repellent discovery
- Novel target site identification
- Insecticide resistance monitoring and management

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***Current Topics in Food and Crop Allergens***

**Purpose of Symposium**

Numerous approaches exist to detect, quantify, and characterize allergens in our food supply which encompasses both the traditional food supply and foods prepared from genetically modified crops. Analytical techniques to detect such allergens run the gamut from low-accuracy, rapid screening to slower but more accurate techniques with multiplexing to accommodate multiple analytes. The regulatory need for such methods has contributed to a variety of methods developed and their improvements.

The session will be of interest to AGRO, AGFD, and ANYL members of ACS working in the area of foods, allergens, genetically modified organisms, or analytical chemistry.

**Suggested Topics**

- Detection, quantification, and/or characterization methods for allergens in biotech crops, traditional food and foodstuff (e.g. LC/MS/MS, ELISA or other techniques)
- Method improvements such as throughput (e.g. multiplexing), sensitivity, and or accuracy
- Regulatory perspectives on allergens detection, quantification, characterization and labeling
- Method validation and choice of reference standards/materials

**For further information, contact the organizers:**

Julie Eble, Critical Path Services, LLC, USA, 610-558-3001 X100, [julie.eble@criticalpathservices.com](mailto:julie.eble@criticalpathservices.com)  
Norma Houston, DuPont Pioneer, USA, 302-695-8778, [norma.houston@cgr.dupont.com](mailto:norma.houston@cgr.dupont.com)

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***Call for Papers***  
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***Current Topics in Seed Treatment***

**Purpose of Symposium**

Seed treatments are an important tool for growers supporting more sustainable agriculture by maximizing crop yield and reducing input and potential negative impact on the environment. Much advancement in seed treatments have occurred, but diverse challenges still exist.

Papers are requested for all current topics in the development, innovation, analysis, regulation, and stewardship of seed treatment products. Topics may include benefits and challenges, role in sustainable agriculture (environmental, social, and economic) both pro and con. The session will be of interest to AGRO, ENVR, and ANYL members of ACS.

**Suggested Topics**

- R&D in seed treatments: needs, challenges, advancements, and innovation
- Impact of polymer selection on binding properties
- Methods of analysis for treated seeds
- Environmental impact on the use of treated seeds in comparison to broadcast applications
- Perceived and actual effects of treated seed planting on non-targets.
- Seed treatment stewardship
- Regulations and regulatory environment
- Role in sustainable agriculture
- Innovation in seed treatments: chemical, biological, inoculants, coatings, and related synergies

**For further information, contact the organizers:**

Julie Eble, Critical Path Services, LLC, USA, 610-558-3001 X100, [julie.eble@criticalpathservices.com](mailto:julie.eble@criticalpathservices.com)  
Patricia Rice, BASF, USA, 919-547-2668, [patricia.rice@basf.com](mailto:patricia.rice@basf.com)

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***Data to Decisions: Software Solutions for  
Modern Analytical Workflows***

**Purpose of Symposium**

Software is the backbone of a modern analytical workflow. Scientists interface with a diverse range of software systems to design, execute, review, and document their experiments. Innovations in software to enable these workflows span from home written local solutions to commercially available enterprise wide customizable solutions. Navigating the complex world of software solutions can be overwhelming for scientists.

This symposium will focus on practical applications of software solutions and information management systems that enable agricultural scientists to apply modern analytical tools to pesticide analysis. Vendors are invited to describe their products in the interactive poster session. Other ACS divisions that may benefit from this symposium are ANYL, ENVR, and AGFD.

**Suggested Topics**

- Pipeline software solutions for analytical chemistry including automated transfer of data from multiple instrument vendors into a single integrated platform
- Novel software solutions for rapid and accurate exploration and review of analytical data
- Successful application of enterprise solutions including, ELN, LIMs and eArchive systems
- Innovative approaches to support regulated environments including report generation tools and computer systems validation
- Open source software projects to support analytical sciences

**For further information, contact the organizers:**

Leah Riter, Monsanto Company, 314-694-7389, [lsriter@monsanto.com](mailto:lsriter@monsanto.com)  
Lisa Buchholz, Dow AgroSciences, 317-337-4393, [lbuchholz@dow.com](mailto:lbuchholz@dow.com)

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***Degradation of Halogenated Compounds in the Environment***

**Purpose of Symposium**

Many useful chemicals are halogenated. Depending on the structure and composition, their persistence and relative toxicological risks can vary. The purpose of this symposium is to discuss many of the attributes and ramifications associated with environmental degradation of halogenated xenobiotics.

Some of these compounds have received attention because of their potential toxicity and persistence. A number of studies have been carried out on identification of microorganisms and enzymes responsible for degradation of halogenated compounds as well as molecular characterization of the enzymes. Fundamental understanding of chemical and biochemical processes associated with the degradation process is of great interest among scientists in industry and academia.

This symposium aims to invite scientists in this area and update contemporary research knowledge by addressing some of the following suggested topics. The goal of this symposium is to create a forum for recent studies in order to gain a better understanding of degradation of halogenated compounds in an ecosystem. Other divisions with interest in this topic include BIOL, ENVR, and TOXI as the topics are broad and can be applied to additional chemistries and biological systems of interest.

**For further information, contact the organizers:**

Kyung Myung, Dow AgroSciences, USA 317-337-7104, [kmyung@dow.com](mailto:kmyung@dow.com)  
Kyung Hoon Lee, Dow AgroSciences, USA 317-337-3070, [klee2@dow.com](mailto:klee2@dow.com)  
Norbert Satchivi, Dow AgroSciences, USA 317-337-4128, [nmsatchivi@dow.com](mailto:nmsatchivi@dow.com)  
Mingming Ma, Dow AgroSciences, USA 317-337-3500, [mma3@dow.com](mailto:mma3@dow.com)

**Suggested Topics**

- Ecological risk assessment of halogenated compounds
- Degradation of halogenated compounds in environmental matrices
- Investigation on microorganisms that can degrade halogenated compounds
- Studies on halogenated compound-degrading enzymes and their molecular characterization
- Bioremediation approaches to reduce halogenated compounds in the environment

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***Development of More Efficient Pesticide Exposure Screening Informed  
by Fate, Usage, and Monitoring Data***

**Purpose of Symposium**

The demand for more accurate and efficient regulatory assessment of pesticide exposure is strong. In a tiered assessment process, regulators must prioritize the avoidance of decisions that incorrectly conclude an absence of risk. However, initial screening values are based on combinations of conservative assumptions that do not necessarily represent conditions that co-occur. Exposure accuracy/realism commonly requires spatially-explicit assessments incorporating environmentally-specific representation of fate processes and intensive collection of supporting data. Better use of data designed to support such assessments can lead to a more efficient tiered exposure assessment process.

This symposium will explore and update the latest advances in the tiered assessment of aquatic and terrestrial exposure to pesticides (supporting both ecological and human health risk assessments), with a special focus on the development of more efficient chemical screening informed by fate, usage, and monitoring data tailored for modeling support. Broad participation from the pesticide scientific and regulatory communities including environmental fate scientists, modelers, GIS and data experts, exposure and risk assessors and managers is expected.

**For further information, contact the organizers:**

Michael R. Barrett, US EPA, 703-305-6391, [barrett.michael@epa.gov](mailto:barrett.michael@epa.gov)  
Wenlin Chen, Syngenta Crop Protection, LLC, 336-632-2015, [wenlin.chen@syngenta.com](mailto:wenlin.chen@syngenta.com)  
Mah Shamim, US EPA, 703-305-5025, [shamim.mah@epa.gov](mailto:shamim.mah@epa.gov)

**Suggested Topics**

- Progressive tiered assessments informed by fate, product use, and monitoring data
- Design and characterization (including field practices, environmental conditions, and usage patterns) of monitoring studies to support exposure modeling algorithms and parameterization
- Improvement of fate studies and evaluation processes relevant to exposure modeling
- New scenario development and probabilistic analyses to match actual or potential product use patterns and facilitate achievement of protection goals
- Advanced approaches for exposure inference based on historical monitoring data

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***Endangered Species Risk Assessment for Pesticides***  
***Advances in Methods and Process***

**Purpose of Symposium**

Assessing the potential risk of pesticides to endangered and threatened species involves four government agencies (US EPA, USDA, Fish and Wildlife Service (FWS), and National Marine Fisheries Service (NMFS)), state regulatory agencies, pesticide registrants and end users, and many other stakeholders with interest in agricultural production, vector control, and the protection of endangered species. The nationwide scale of the assessments and number and types of endangered species creates a complexity never seen in any other risk assessment. Currently the methods for conducting these assessments are being updated based on the recommendations of a National Academy of Science Panel.

This symposium will act as a forum for bringing together the involved and interested parties to share and exchange new ideas and methods. Scientists and regulators engaged in all aspects of endangered species will benefit by active participation.

**Suggested Topics**

- Advances in a tiered progression of effects characterization
- Exposure characterization for endangered species including exposure models, spatial extent of exposure, and geospatial definition of potential use areas
- Deterministic and probabilistic risk characterization
- Population modeling
- Endangered species range and distributions
- Use of species biology and habitat definitions in risk assessment
- Weight of evidence approaches
- Uncertainty analysis
- Mitigation approaches and strategies
- Role of existing and future conservation programs
- Policy and process steps on implementing endangered species assessment

**For further information, contact the organizers:**

Tilghman Hall, Bayer CropScience, 919-549-2236, tilghman.hall@bayer.com  
Nick Poletika, Dow AgroScience, 317-337-3476, npoletika@dow.com  
Mike Leggett, CropLife America, 202-872-3873, mleggett@croplifeamerica.org  
Chuck Peck, US EPA, 703-305-6309, peck.charles@epa.gov  
Tony Hawks, NOAA-NMFS, 360-753-4374, tony.hawkes@noaa.gov  
Nancy Golden, FWS, 703-358-2077, Nancy\_Golden@fws.gov  
Valery Forbes, University Nebraska, 402-472-6676, vforbes3@unl.ed

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***Environmental Fate, Management, and Mitigation of  
Nitrogen in Agricultural Systems***

**Purpose of Symposium**

Nitrogen fertilizers are critical to enhancing food production, allowing increased food production on limited land. Nitrogen inputs can also be lost to surface water runoff, ground water leaching, and atmospheric emissions. This symposium will discuss the importance of nitrogen to agricultural production, follow the environmental fate and transport, and explore latest research into the management and mitigation of nitrogen to reduce surface and ground water loss and atmospheric loss resulting in greenhouse gases.

The intent is to facilitate posters/presentations/discussions on how the following groups steward pesticide products: fertilizer regulators (national, state, and local), educators (university, extension service, etc.), distributors/applicators, non-government organizations, and registrants/suppliers. Exchanging ideas will facilitate a common understanding of nitrogen stewardship practices that have been effective for continued improvement in environmental stewardship. Stewardship experts from both a wide variety of disciplines, organizations and countries (both developed and developing) will be sought as participants.

**Suggested Topics**

- Environmental fate and transport of nitrogen
- Impact of nutrients in estuarine ecosystems
- Science-based implementation and assessments of mitigation measures
- Research results on use of nitrogen stabilizers and urease inhibitors to reduce nitrate leaching and emissions of greenhouse gas such as NO<sub>x</sub>
- The role of the universities and cooperative extension (and its global equivalents) in developing nutrient stewardship practices
- Grower initiatives in developing nutrient management plans

**For further information, contact the organizers:**

Brian L. Bret, Dow AgroSciences LLC, 916-780-7477, [blbret@dow.com](mailto:blbret@dow.com)  
Cathleen J. Hapeman, USDA-ARS, 301-504-6451, [cathleen.hapeman@ars.usda.gov](mailto:cathleen.hapeman@ars.usda.gov)  
Kevin Armbrust, Louisiana State University, 225-578-4281, [armbrust@lsu.edu](mailto:armbrust@lsu.edu)

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***Environmental Fate, Transport and  
Modeling of Agricultural Chemicals***

**Purpose of Symposium**

Effective risk assessment of pesticides requires detailed measurement and or prediction of their environmental fate in target use regions. This symposium will improve knowledge and identify research needs on this critically important topic.

Results are expected to improve the accuracy and confidence in pesticide exposure/risk assessments and in the process, facilitate harmonization of pesticide registration globally. Spatial and temporal variability, fate process coupling and interaction, conservation practice implementation, and changing climates may also add substantial variability to pesticide fate assessments.

Presentations describing original research, cases studies, and literature review which address these and related topics are encouraged. Scientists and regulators engaged in all aspects of pesticide exposure assessment, modeling, and fate evaluation will benefit by active participation.

**Suggested Topics**

- Relating laboratory and field fate measurements
- Conduct and interpretation of environmental monitoring
- Regulatory relevance of modeling, monitoring, and environmental fate measurements
- Use of modeling versus monitoring
- Advances in modeling of the environment, including spatially driven modeling, advances in spatial data, and use of large datasets
- Design and regulatory relevance of model scenarios for drinking water and ecological exposure assessment
- Policy implications of modeling, monitoring or environmental fate
- Improving model accuracy
- Establishing model calibration and validation criteria
- Coupling fate processes and models
- Assessing climate change impact

**For further information, contact the organizers:**

Scott H. Jackson, BASF, 919-547-2349, [scott.jackson@basf.com](mailto:scott.jackson@basf.com)

Natalia Peranganing, Syngenta Crop Protection, 336-632-7389, [natalia.peranganing@syngenta.com](mailto:natalia.peranganing@syngenta.com)

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***Feeding the World Requires Pesticides  
and Maximum Residue Levels***

**Purpose of Symposium**

Pesticide research and development efforts have provided safe and effective chemical solutions to help growers feed the world. Obtaining pesticide registrations in the countries where food is grown is just the start. Being able to export food freely around the world to the countries where it is needed and desired is another thing.

Registrants, governmental regulators, growers, and traders involved in agriculture today will discuss the issues associated with trading food around the world and the impact Maximum Residue Levels (MRLs) have on feeding the world. In addition, the role of International Codex Alimentarius MRL standards in the process of national MRL setting and the global trading of food will be debated by different stakeholders.

**Suggested Topics**

- Use of field trial data around the world to establish MRLs; Global Zoning Project
- International crop grouping efforts
- Role of Codex in furthering trade
- Harmonized assessments; is it possible to accept another country's MRLs for importing foods?
- US Grower Priority Project: Taiwan
- Canada's PMRA focus on establishing domestic MRLs; is US trade impacted?
- MRLs for animal feed items in foreign markets
- Residues, MRLs, and Consumer Safety
- MRLs and Secondary Standards
- Challenges in complying with multiple MRLs
- Follow-up from MRL Workshop held at the 13th IUPAC International Congress on Pesticide Chemistry in San Francisco in 2014

**For further information, contact the organizers:**

Heidi Irrig, Syngenta, 336-632-7243, heidi.irrig@syngenta.com  
Phil Brindle, BASF Agricultural Solutions, 919-547 2654; philip.brindle@basf.com  
Carmen Tiu, Dow AgroSciences, 317-337-4041, tcarmen@dow.com

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***Formulation Technologies for Improved Crop Protection***

**Purpose of Symposium**

In the realm of crop protection products, formulation technologies are chemistries complementary to active ingredients (pesticides, biorationals, growth regulators, and nutritionals), application methods, plant genetics, and the circumstances of applications. This symposium will highlight novel formulation chemistries essential to safe product designs that enable efficient crop protection and minimize undesired outcomes.

With new and changing technological tactics and issues external to the industry (demand for sustainable technologies, changing regulatory environment, resistance, extreme weather, etc.), it is an intriguing time to explore ways in designing products to meet the needs of a more populated and prosperous world. Therefore, we also invite those traditionally affiliated with AGFD, COLL, ENVR, or ORGN whose technologies are in non-crop applications to exchange perspectives between industries.

**Suggested Topics**

- Green formulations for agrochemicals
- Formulations for plant nutrition enhancement
- Adjuvant technologies for uptake into targets
- Technologies for enhanced tank mix compatibility
- Application technologies
- New perspectives on application timing and tactics, including seed coating, triggered and timed release
- Integrated Pest Management and use of new formulations of natural pesticides, bioagents, and recently introduced agrochemicals
- Old chemistries resurrected through new formulations
- Reducing spray drift and other undesired outcomes
- Water management through formulation technology
- Heat stress management through formulations
- Opportunities for reduced application rates
- Regulatory issues for formulations
- Environmental fate, metabolism, and role of various formulations

**For further information, contact the organizers:**

Tanu Jindal, Amity University, India, +91 935-073-6572, [tjindal@amity.edu](mailto:tjindal@amity.edu)  
Andrew Malec, International Society for Agrochemical Adjuvants; Advanced BioCatalytics, USA,  
949-394-0352, [amalec@abiocat.com](mailto:amalec@abiocat.com)  
Solito Sumulong, International Society for Agrochemical Adjuvants; Winfield, LLC, USA,  
651-236-7224, [SASumulong@landolakes.com](mailto:SASumulong@landolakes.com)

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***Global Research Needs: Identifying and Prioritizing Efforts  
to Sustain Environmental Quality***

**Purpose of Symposium**

We are seeking your input to help identify and prioritize research needs to achieve sustainable environmental quality. The aim of this symposium and discussion is to gather feedback from members and meeting attendees of ACS that will contribute to the Society of Environmental Toxicology and Chemistry's (SETAC) Global Horizon Scanning Project. Presentations will update progress on this project targeting sustainable environmental quality and will provide examples and impacts of previous international prioritization efforts in other scientific areas.

Discussion will follow the presentations to provide ample time and a platform for priority research question submission and feedback from symposium and meeting attendees. Contributions are encouraged from all divisions of ACS and from academic, governmental and industrial sectors. Compilation of feedback from ACS will be utilized in an expert workshop to be held at the SETAC North America 36<sup>th</sup> Annual Meeting (November 2015, Salt Lake City, UT, USA) along with feedback from international scientists representing numerous geographic regions and scientific disciplines.

Identifying and prioritizing current research needs as well as anticipating upcoming challenges will allow for a more agile response, support the needs of decision makers and citizens from local to global scales, direct research priorities, and identify strategic topics for future symposia.

**For further information, contact the organizers:**

Bryan Brooks, Baylor University, 254-710-6553, Bryan\_Brooks@baylor.edu  
George Cobb, Baylor University, 254-710-6556, George\_Cobb@baylor.edu  
Dionysios Dionysiou, University of Cincinnati, 513-556-0724, dionysios.d.dionysiou@uc.edu  
Pamela Rice, USDA-ARS, 612-624-9210, Pamela.Rice@ars.usda.gov  
Elin Ulrich, US EPA, 919-541-3717, Ulrich.Elin@epa.gov

**Suggested Topics**

- Introduction to the SETAC Global Horizon Scanning Project
- Collaborations between SETAC and ACS to identify and prioritize research needs
- Case studies for research horizon scanning projects
- Research priorities for pharmaceuticals and personal care products
- Research priorities for conservation science
- Research needs for agrochemicals

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***GMOs and the Entanglement of Intellectual Property Rights***

**Purpose of Symposium**

The advent of genetically-modified organisms has brought intellectual property rights into the focus of the agricultural industry. The commercialization of transgenic food crops hinges on IP rights making it of great concern to agrochemical research. If a product cannot be commercialized, research dollars cannot be recouped. With the implementation of transgenic crops worldwide, how does this affect farmers' rights, biodiversity, and food security? IP rights are key to the success – or failure – of genetically-modified agriculture.

This symposium will open with a brief overview of legislation governing genetically-modified organisms. After which, the focus will include policy issues concerning IP rights and crops, international IP agreements, the necessity (or possible lack thereof) of GMO labeling, and the public perception of genetically-modified organisms. This symposium will be co-hosted with the CHAL division and will be of interest to the AGFD, BIOCHEM, ENV, and SCHB.

**Suggested Topics**

- Legislation governing intellectual property rights of genetically-modified organisms
- Health and safety standards and practices for genetically-modified crops
- Impact of genetically-modified crops on small farm businesses
- Public perception of genetically-modified organisms
- The production and commercialization of transgenic food crops

**For further information, contact the organizer:**

Andrew Coates, William S. Boyd School of Law/Lee School of Business, 702-203-5132, [coatesa@unlv.nevada.edu](mailto:coatesa@unlv.nevada.edu)

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***Host Plant Volatiles and Chemotaxonomy for Predicting  
Host Range of Invasive Weed Biocontrol Agents***

**Purpose of Symposium**

Invasive weeds are a significant global concern for agriculture and natural landscapes. Effective control options are limited due to environmental, ecological, and chemical contamination concerns. Biological control agents are an effective alternative for weed management. Ensuring that an introduced biological control agent does not negatively affect surrounding agricultural or native plants is of critical importance.

This symposium will highlight the use and importance of host plant volatiles and chemotaxonomy for predicting hosts of introduced insect biocontrol agents. Talks will focus on the important role host plant volatiles play in the choice of a suitable host for herbivorous insects. Chemists, chemical ecologists, weed and biocontrol scientists, entomologists, plant physiologists, and regulatory personnel will benefit from the presentations. ACS members from BIOL, BIOT, ANYL, ENVR, and AGFD will find the topics applicable to their fields.

**Suggested Topics**

- Volatiles for chemotaxonomic differentiation of plant species
- Host plant volatiles as attractants of herbivorous insects
- Volatile metabolic profiling and phylogenetic analysis to predict plant-herbivore interactions
- Synthetic formulations of host plant volatiles as an insect monitoring tool
- Sensitive collection techniques for *in situ* or in-field analyses of plant volatiles
- Can chemotaxonomy assist with regulatory requirements?

**For further information, contact the organizer:**

John J. Beck, USDA-ARS, 510-559-6154, john.beck@ars.usda.gov

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***Immunoassays and Other Bioanalytical Techniques:  
Immunochemistry Summit XII***

**Purpose of Symposium**

The first ACS Symposium dedicated to immunochemical methods for environmental analysis was sponsored by AGRO in 1989. Although the technology was firmly transitioning from the medical and clinical fields to the analysis of environmental targets, there was still concern regarding barriers to adopting immunoassays in pesticide analytical laboratories and issues in addressing critical problems. Concerns were also expressed by regulatory agencies for this new technology and how it could be fully utilized to reduce analytical costs, and how and if it could be integrated into the current cadre of reliable methods used for regulatory purposes. Today numerous papers describe environmental immunoassays with applications not thought of in 1989. How did this transition occur? What were the key milestones in this evolution? What does the future hold for bioanalytical methods in general?

After a short retrospect of environmental immunoassays, the symposium will focus on new developments, and how the technology has enabled other bioanalytical techniques to evolve. This symposium is open to all bioanalytical techniques to illustrate the breadth of these methods for human diagnostics, biomarkers and exposure assessment, environmental monitoring, quality assurance, food safety, pesticide regulations, and other areas where bioanalytical methods have made an impact. This symposium will be of interest to ANYL, AGFD, BIOCHEM, ENV, and SCHB.

**For further information, contact the organizer:**

Jeanette Van Emon, US EPA, 702-798-2154, vanemon.jeanette@epa.gov

**Suggested Topics**

- Improvements in antibody development and application of antibody mimics
- Advancements in assay platforms, microarrays, and sensors
- Methods for functional proteins, allergenic chemicals, and food adulteration
- Commercialization of bioanalytical methods
- Multiplexed and high throughput methods with big data analysis
- Omic approaches using bioanalytical methods to determine adverse outcome pathways for human exposure and the environment
- Detection and quantitation of GMOs in foods and the environment

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***Insecticide Action on Ion Channels:  
A Tribute to Professor Toshio Narahashi***

**Purpose of Symposium**

Numerous insecticides, from early botanicals to contemporary neonicotinoids and diamides, target voltage- and ligand-gated ion channels in nerve and muscle. Our understanding of how these insecticides act has grown in parallel with the growth of neurobiology from simple electrophysiological recordings of action potentials to detailed functional and molecular models of target macromolecules. The foundations of our contemporary understanding of insecticide actions on ion channels lie in the many accomplishments and contributions of the late Prof. Toshio Narahashi, the “founding father” of the field of insecticide neurotoxicology.

This symposium will honor the many contributions of Prof. Narahashi to studies of insecticide action by considering the current status of our understanding of insecticide action on ion channels and future prospects for the exploitation of ion channels in the discovery of new selective insecticides for agriculture and public health. This symposium’s focus on the neuropharmacology of insecticide action will be relevant to scientists interested in insecticide discovery, mechanisms of insecticide resistance that involve altered target sensitivity, and the regulatory implications of the convergent action of multiple insecticide classes on specific molecular targets.

**Suggested Topics**

- Toshio Narahashi, the Father of insecticide neurotoxicology
- Overview: Why are ion channels premiere insecticide targets?
- Insecticide action on voltage-gated sodium channels
- Insecticide action on nicotinic acetylcholine receptors
- Insecticide action on GABA and glutamate receptors
- Insecticidal macrolide ligands acting on Cys-loop receptors
- Insecticide action on ryanodine receptors
- Underexploited ion channels as targets for future insecticides
- Ion channel screening for insecticide discovery
- Regulatory implications of conserved ion channel targets

**For further information, contact the organizers:**

David M. Soderlund, Cornell University, USA, 315-787-2364, dms6@cornell.edu  
Ke Dong, Michigan State University, USA, 517-432-2034, dongk@cns.msu.edu  
Vincent Salgado, BASF, 919-547-2244, vincent.salgado@basf.com

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***Latest Trends in Environmental Fate and Exposure Assessments***  
***Filling in Knowledge and Data Gaps across the Commodity Groups***

**Purpose of Symposium**

An environmental assessment (EA) is required for agricultural pesticides, active human and animal pharmaceutical ingredients, and ingredients used in personal care products and biocides by regulatory bodies to facilitate an evaluation of potential risks to the environment and to demonstrate safe use prior to registration.

The purpose of this symposium is to present the latest trends in novel, modified or higher-tier study design, laboratory testing methodology, sampling, environmental monitoring techniques and environmental modeling approaches utilized by different commodity groups. The intent is to look across the medicinal, agricultural, consumer and antimicrobial or biocidal product groups, identify where similarities and differences may exist, and consider the challenges associated with assessing environmental exposure. Sharing experiences and knowledge across the commodity groups will greatly improve the exposure assessments and thereby lead to more robust environmental assessments. The symposium will be of interest to researchers, academia, industry, and regulators. Presentations are also expected to cover issues addressing regulatory requirements from agencies, including EMEA, US EPA, FDA, Health Canada, PMRA, EFSA and other regulatory bodies globally.

**Suggested Topics**

- Exposure assessment of cry proteins in the environment
- Opportunities and challenges for harmonization of environmental exposure assessment of crop protection products across regulatory agencies
- Approaches to exposure analysis for the evaluation of animal drugs
- Environmental risk assessment of fragrance materials
- Exposure modeling of “down-the-drain” across multiple product groups
- Regulatory updates on developments on EU guidance in the fate area
- Pharmaceuticals and personal care products in the environment – exposure assessments

**For further information, contact the organizers:**

Kalumbu Malekani, Smithers Viscient, USA, 508-295-2550, [kmalekani@smithers.com](mailto:kmalekani@smithers.com)  
Jon Ericson, Pfizer Inc., USA, 860-441-4864, [jon.f.ericson@pfizer.com](mailto:jon.f.ericson@pfizer.com)  
Graham Rattray, Health Canada, 613-941-8321, [graham.rattray@hc-sc.gc.ca](mailto:graham.rattray@hc-sc.gc.ca)  
Joe Robinson, Zoetis, USA, 269-833-2513, [joseph.a.robinson@zoetis.com](mailto:joseph.a.robinson@zoetis.com)  
Michael Xiao Huang, DuPont Crop Protection, USA, 302-451-3598, [Michael-Xiao.Huang@dupont.com](mailto:Michael-Xiao.Huang@dupont.com)

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***Lysimetric Studies and Point Source Contamination by Leaching***

**Purpose of Symposium**

Pesticide leaching is a matter of concern for its potential to contaminate the soil and groundwater resources. Though the lysimetric studies are conducted before pesticide registration for the safety of soil and water resources, many cases have been reported with high pesticide residues in groundwater and soil because of leaching of pesticides due to various reasons such as overuse and high persistence. The increased concern over pesticides in the soil profile and groundwater has required their leachability evaluations as a basis of risk analysis and monitoring. Lysimeters are suitable aids for pesticide transport studies and can provide valuable data in risk assessment of point source contamination. Further research through amendment of bioagents for pesticide degradation may also be carried out with lysimeters for cost effective bioremediation and waste disposal strategies.

The symposium will emphasize field monitoring studies characterizing pesticide transport/leaching studies through lysimeters, besides accessing leaching potential through lysimetric experiments. This session aims to increase interaction among application scientists, analysts, water and soil scientists and regulatory personnel from several professional societies, ACS (AGFD, ENVR, ANYL), IUPAC and SETAC, to discuss issues determining risks of soil and groundwater contamination.

**For further information, contact the organizer:**

Tanu Jindal, Amity University, +91-935-073-6572, [tjindal@amity.edu](mailto:tjindal@amity.edu)

**Suggested Topics**

- Local understanding of vadose zone contamination through agrochemicals
- Ecotrons and lysimeters: tools for observation and experimentation
- Monitoring of pesticide contamination through leaching
- Risk assessment and data interpretation of groundwater contamination through point source leaching
- Soil management through lysimetric studies
- Bioremediation and waste disposal strategies using leaching studies

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**Call for Papers**  
**250<sup>th</sup> ACS National Meeting & Exposition**  
**August 16-20, 2015**  
**Boston, Massachusetts USA**

***Metabolites from Endophytic Microorganism to Combat  
Biotic Stress in Crop Plants***

**Purpose of Symposium**

The world population is expanding rapidly and will pass from its current number of 7.12 billion to 9.4 billion by the year 2050. To provide enough food for an expanding world population, a massive increase in crop production is required to meet the food demands of future generations, while preserving the ecological and energy-related resources of our planet. However, agricultural production continues to be constrained by a variety of biotic (e.g., pathogens, insects and weeds) stress. Evidence indicates that biotic stress can cause a 28%, 37%, 31%, 40%, 26%, 29% loss of global yield-loss of wheat, rice, maize, potatoes, soybeans, and cotton, respectively.

Plant associated bacterial and fungal communities play an important role in balancing the ecosystem. Endophytic microorganisms (endophytes) are a group of highly assorted organisms that internally-infect living plant tissues without instigating noticeable symptom of infection or visible manifestation of disease. Endophytic microorganisms are a feasible source for the discovery of novel bioactive molecules. They have been identified to have potent fungicidal, herbicidal, and insecticidal activities which can further be exploited for crop protection. The symposium will bring together scientists and students working in the area of endophytic chemistry from all over the world to contribute to a better understanding of the unexplored potential of endophytic fungal metabolites and their role in combating biotic stress.

**For further information, contact the organizers:**

Nutan Kaushik, The Energy and Resources, +91 11 24682100 or 24682111, kaushikn@teri.res.in  
Azucena González-Coloma, Institute of Agricultural Sciences, CSIC, +34 91 745 25 00 (ext. 950711), azu@ica.csic.es

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***Pesticide Dose: Effects on the Environment and Target  
and Non-Target Organisms***

**Purpose of Symposium**

About 500 years ago, Paracelsus, considered by some as the father of toxicology, observed that the poison is in the dose. Pesticide dose has become a major issue in many aspects of pest management, environmental toxicology, and human health. This symposium will cover some of the issues dealing with pesticide doses.

The pesticide industry is grappling with many pesticide dose-related issues. Major efforts have been made to discover compounds that are effective at very low doses. Yet, the toxicity per unit mass of the pesticide may be more important than the actual amount used. For example, some biopesticides that are considered almost non-toxic are applied at high rates. The dose used can have profound effects on the evolution of resistance. Low, non-toxic doses of many pesticides can have hormetic effects on pests and non-target organisms. What are the biological and environmental implications of new precision agriculture and intelligent spray systems that reduce overall effective pesticide dose rates per unit area? Why are the recommended rates for the same pesticide quite different in different countries? What are the long-term implications of low doses on non-target organisms? These and other dose-related topics will be covered by this symposium.

**Suggested Topics**

- Dose and pesticide resistance
- Hormesis and pesticides
- Low insecticide doses and pollinators
- Low pesticide exposure and environmental effects
- Recommended dose rates – how are they determined?
- Drift, doses and effects on non-target organisms
- Low doses and health effects
- Low dose versus low toxicity in pesticide discovery
- Biopesticides and pesticide dose
- Any other topic related to pesticide dose
- Dose and effects on soil microbes
- Application technology and effects on effective dose
- Formulation and controlled release effects on dose rate

**For further information, contact the organizers:**

Stephen O. Duke, USDA-ARS, +1 662-915-1036, sduke@olemiss.edu  
Per Kudsk, University of Aarhus, Denmark, +45 2228 3382, per.kudsk@agro.au.dk  
Keith Solomon, University of Guelph, +1 519-824-4120 x 58792, ksolomon@uoguelph.ca

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***Pesticide Residues in Latin America:  
Ecotoxicology and Environmental Sustainability***

**Purpose of Symposium**

Latin America is a major agricultural region producing 73% of the world's coffee, 50% of the bananas production, and 45% of cotton. Other important crops are citrus fruits and cocoa (33% of world production in each case) and sugarcane (30%). Pesticides are primarily used on large-scale production systems like sugarcane, cotton, maize, soybeans, rice, citrus and tomatoes, especially in Brazil, Colombia, Argentina, Chile, and Mexico.

Concerns exist over the potential for improper and overuse of pesticides in Latin American countries. Improved agricultural practices are needed to protect human health, sensitive plant and animal species, and to protect forested and water resources. In addition, limited data is available on the environmental fate of pesticides in soils from Latin American countries which may have very different properties from other regions. This symposium will examine the current state of environmental quality of Latin America and identify novel approaches to develop new risk-assessment tools leading to a more sustainable agricultural production environment.

**For further information, contact the organizers:**

María Verónica Cesio, Universidad de la República, Montevideo, Uruguay. +598 2 924 40 68, [cs@fq.edu.uy](mailto:cs@fq.edu.uy)  
Karina S. B. Miglioranza, Universidad Nacional de Mar del Plata, Argentina, +54 9 223 5419946,  
[kmiglior@mdp.edu.ar](mailto:kmiglior@mdp.edu.ar)

**Suggested Topics**

- Pesticide monitoring systems in Latin America
- Effect of pesticides on rural and urban populations; their impact particularly on children's health
- Risk assessment at regional scale
- Sustainable agriculture, Good Agricultural Practices, and Best Management Practices
- Holistic approach of the environmental impact of agrochemical use in Latin America
- How to assure sustainability despite the use of agrochemicals for intensive agricultural practices
- Update of Latin America situation towards agrochemical use and ecosystem sustainability

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***Pesticides and Hydrophobic Compounds in Sediment***

**Purpose of Symposium**

Recent detections of pesticides in sediments of urban and agricultural watersheds in many parts of the US and elsewhere have resulted in increasing attention to their sources, fate, and potential ecological effects. In most cases, the pesticides involved are highly hydrophobic and therefore this topic is closely allied to research on PAHs, PCBs and other hydrophobic compounds.

This symposium will provide a forum for researchers, risk assessors, and risk managers to present concepts and share findings related to this important subject. Presentations are encouraged from a wide range of disciplines (including environmental and analytical chemistry, environmental fate, ecotoxicology and ecology, and aquatic biology) and sectors (academia, industry, government research organizations, and regulators). It is expected that other organizations active in sediment research and environmental management, such as ENVR and SETAC, will collaborate with AGRO to develop the symposium program.

**Suggested Topics**

- Methods for measurement of pesticides and hydrophobic compounds in sediments and sediment interstitial water
- Relationship between bioavailability and toxicity of sediment contaminants to aquatic organisms
- Toxicity testing and identification for pesticides and hydrophobic compounds in sediment
- Trends in concentrations of pesticides in sediment.
- Environmental processes affecting the fate and redistribution processes in sediment
- Prediction of sediment contamination from pesticide use in agriculture, residential pest control, public health, and other applications
- Risk assessment of pesticides and hydrophobic compounds in sediment
- Management of pesticides/hydrophobic contaminants in sediment

**For further information, contact the organizers:**

Jeffrey Giddings, Compliance Services International, 339-788-0098, [jgiddings@complianceservices.com](mailto:jgiddings@complianceservices.com)  
Jay Gan, University of California-Riverside, 951-827-2712, [jgan@ucr.edu](mailto:jgan@ucr.edu)  
Al Barefoot, DuPont Crop Protection, 302-451-5856, [aldos.c.barefoot@dupont.com](mailto:aldos.c.barefoot@dupont.com)  
Paul Hendley, Phasera Ltd., 336-937-9242, [paul.hendley@phasera.com](mailto:paul.hendley@phasera.com)

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***Pollinators and Agrochemicals***

**Purpose of Symposium**

Pollinators provide key ecosystem services and are critical to agricultural production. Agrochemicals, including pesticides, are one of several factors that have been implicated in the decline of managed and wild pollinators. While potential effects to *Apis* bee species have received the most attention, non-*Apis* bees along with other pollinators are also exposed to agrochemicals.

This symposium will bring together scientists from several professional societies/organizations (ACS, IUPAC, SETAC) coming from academia, government, and industry to discuss best practices for determining the risks of agrochemicals to pollinators and ways to minimize the risk of these exposures. An additional session on the same topic will be held at the SETAC meeting in Salt Lake City, November 2015, to advance the scientific understanding and enhance communication/cross-pollination between fields of expertise.

A key area of focus for this symposium will be the risk assessment process, with specific focus on initial laboratory testing (Tier1), subsequent field testing (Tier 2 and Tier 3), and culminating with the utilization of these data for the final risk characterization.

**For further information, contact the organizers:**

Michelle Hladik, US Geological Survey, 916-278-3183, mhladik@usgs.gov  
Paul Reibach, Smithers Viscient, 508-295-2550, preibach@smithers.com  
Elin Ulrich, US EPA, 919-541-3717, ulrich.elin@epa.gov

**Suggested Topics**

- Pollinator risk assessment process
- Tier 1, Tier 2, and Tier 3 studies based on US EPA testing requirements
- Studies based on PRMA and EU requirements
- Environmental exposure of pesticides and other agrochemicals
- Global regulatory aspects of protecting pollinators
- Methods for direct and indirect analysis of agrochemical exposure
- Analytical methodologies to support laboratory and field pollinator testing
- Ecotoxicology and risk assessment
- Effects of land use on exposure
- Correlating laboratory studies to field studies
- Cumulative exposure and/or interaction with non-chemical stressors

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***Protection of Agricultural Productivity, Public Health and the Environment – General Session***

**Purpose of Symposium**

The AGRO Division currently programs in 15 topic areas, but not all topics are developed into a technical symposium at every meeting.

The General Session therefore allows our members and other scientists to submit papers even though a specific symposium topic is not offered. This year only poster presentations are possible; every attempt will be made to group papers into “mini-symposia” within this session.

**Technical Topics for AGRO**

- Advances in Agrochemical Residue, Analytical and Metabolism Chemistry & Metabolomics
- Air Quality and Agriculture
- Agrochemical Toxicology and Mode of Action
- Bioenergy, Bioproducts, and Biochars: Advances in Production and Use
- Biorational Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture
- Development of Value-added Products from Agricultural Crops and Byproducts
- Developments in Integrated Pest Management and Resistance Management
- Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial and Worker Protection Products
- Human Exposure and Risk Assessment
- Protection of Agricultural Productivity, Public Health, and the Environment
- Regulatory Harmonization and MRLs
- Synthesis of Bioactive Compounds
- Technological Advances and Applications in Agricultural Science (e.g., Nanotechnology, Genetically-modified Organisms and Biocontrol Agents)
- Urban Agriculture - Turf, Ornamentals, Household Products, and Water-Re-Use

**For further information, contact the organizer:**

Pamela Rice, USDA-ARS, 612-624-9210, [pamela.rice@ars.usda.gov](mailto:pamela.rice@ars.usda.gov)

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***Recent Advances in the Analysis of Environmental  
Contaminants in Foods and Feeds***

**Purpose of Symposium**

This symposium will bring together scientists from academia, government, and industry to address the current trends, challenges and new developments in the analysis of environmental contaminants in foods and feeds.

Recent advances in sample preparation, analytical separations, detection and measurement to improve the analysis of environmental contaminants will be discussed. Novel emerging environmental contaminants, and the challenges associated with their identification and analysis in foods and feeds, will be addressed. This symposium will also be of interest to AGFD, ANYL, and ENVR.

**Suggested Topics**

- Recent developments in sample preparation for the analysis of environmental contaminants
- Advances in analytical separation, detection, and measurements of environmental contaminants in foods and feeds
- Current and future trends in the analysis of environmental contaminants in foods and feeds
- Biochemical assays for the analysis of environmental contaminants
- Novel emerging environmental contaminants: identification and analysis

**For further information, contact the organizer:**

Yelena Sapozhnikova, USDA-ARS, 215-233-6655, [yelena.sapozhnikova@ars.usda.gov](mailto:yelena.sapozhnikova@ars.usda.gov)

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***Spray Application Technology***

**Purpose of Symposium**

The use and application of crop protection products continues to be an area of importance for multiple reasons including ensuring that costly products find their intended target to making sure there are no off target concerns. Measuring the on and off target chemical from applications is important for determining both environmental impacts and product efficacy.

This symposium welcomes papers for oral presentations that describe advances in our understanding of spray application technology. Topics of interest include but are not limited to wind tunnel/spray chamber research, field deposition studies, precision application, drift reduction technologies, modeling pesticide fate, regulatory relevance of drift modeling, drift monitoring, impacts of drift reduction technology on product efficacy, and policy implications of spray topics.

**Suggested Topics**

- Wind tunnel
- Field deposition
- Precision application
- Modeling
- Effects of drift reduction on product efficacy
- Regulatory relevance of modeling, monitoring, etc.
- Policy implications of spray topics
- Drift reduction technology

**For further information, contact the organizers:**

Scott H. Jackson, BASF, 919-547-2349, [scott.jackson@basf.com](mailto:scott.jackson@basf.com)  
Patrick Havens, Dow Agrosiences, 317-337-3465, [phavens@dow.com](mailto:phavens@dow.com)  
Greg Kruger, University of Nebraska, 308-696-6715 [greg.kruger@unl.edu](mailto:greg.kruger@unl.edu)

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***Structure Elucidation in Metabolism Studies:  
Plant, Animal, Fish, and Soil***

**Purpose of Symposium**

The objective of a metabolism study is the characterization and identification of at least 90% of the total radioactive residue (TRR) for each commodity. In many cases, it is extremely challenging to identify significant portion of the TRR specifically when the TRR is inherently low or incorporated into the natural carbon pool or when the test material itself is extensively metabolized to a multitude of minor components.

The analytical techniques which are used to identify metabolites are constantly advancing, and it becomes imperative to use the state of the art technique to facilitate identification of metabolites. Typically, identification of metabolites is carried out either by co-chromatographic comparison with known reference compounds using two dissimilar chromatographic systems or by unequivocal identification using LC/MS/MS and/or NMR spectroscopy.

This symposium will focus on recent advances in novel analytical tools to identify picogram/nanogram level metabolites leading to the postulation of a metabolic pathway. The characterization of significant amounts of bound residues in various matrices will also be a part of the discussion topics. The European Commission has recently published a working document on the nature of pesticide residues in fish. This symposium will stimulate discussion on this document as well as other aspects of plant, animal, fish, and soil metabolism studies.

**For further information, contact the organizers:**

Jalees Afzal, BASF Corporation, 919-547-2597, jalees.afzal@basf.com  
M A F Jalal, Valent USA Corporation, 925-948-2944, maf.jalal@valent.com

**Suggested Topics**

- Recent innovative advances in structure elucidation of metabolites
- Challenging issues during metabolite identification successes and failures
- New sequential enzymatic and chemical methods in the characterization and identification of bound residues
- Challenges in isolation and purification of polar conjugates
- Innovative and more sensitive LC/MS/MS confirmatory methods for identification of polar metabolites and conjugates
- Comparative *in vitro* metabolism studies
- Role of *in-vitro* metabolism studies in facilitating identification of complex *in vivo* metabolites
- Recent advances in fish metabolism studies
- Evaluation of new European guideline requirements for conducting fish metabolism studies
- Radio-validation of metabolism studies extraction procedures as a new guideline requirement

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***Urban Agriculture: Turf, Ornamentals,  
Household Products, and Water-Re-Use***

**Purpose of Symposium**

The turf grass and ornamental horticulture industries have rapidly grown with increased urbanization. The acreage devoted to high-value specialty crops that benefit from irrigation, such as fruits and vegetables, is also increasing. As demand for potable water increases, maintaining turf, landscape plants, and crops will require the utilization of previously underutilized water sources.

The growth in water reuse has created the need to investigate the effects of recycled waste water irrigation on urban landscape soils, plants, and the ecosystem as a whole. At the same time, the demand for urban gardens, green parks, sports grounds and green recreational centers on the city outskirts has risen. They form essential parts of the cities because they substantially determine the city-dwellers' quality of life.

The objective of this symposium is to bring together scientists, practitioners, educators, planners, trainers, and supporters involved and interested in topics related to urban agriculture such as ornamental plants, sod, herb production, water reuse, and allied industries (e.g., landscape and lawn care, parks and recreation). Relevant topic ideas could include regulatory issues such as zoning; permitting; water access, use, and discharge; chemical use and runoff as well as other creative topics that connect with urban agriculture in new ways.

**For further information, contact the organizer:**

Tanu Jindal, Amity University, +91-935-073-6572, [tjindal@amity.edu](mailto:tjindal@amity.edu)

**Suggested Topics**

- Fate of nutrients and pesticides in an urban environment
- The impact of industrial and transport pollution on urban agriculture products
- Urban horticulture: pesticide use and water quality
- Efficient water use and functional use of ornamental plants in residential urban landscapes
- Biological control of ornamental and agricultural pests
- Trends in golf course water use and regulation
- Fate of turf grass nutrients and plant protection
- Effects of turf pesticides on aquatic invertebrates
- Turf and landscape management
- Best management practices for turf grass water conservation
- Turf grass diseases and IPM emerging technologies
- Runoff water quality laws and their enforcement
- Irrigation and runoff management in urban landscapes and nurseries
- Water reclamation and efficient water reuse for urban landscape irrigation

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# AGRO Program Committee

## Standing Programming and Champions

*Jay Gan, 2016 Program Committee Chair*

### *Additional Volunteers Needed for Philadelphia 2016*

Contact: Jay Gan, [jgan@ucr.edu](mailto:jgan@ucr.edu)

#### **Advances in Agrochemical Residues, Analytical and Metabolism Chemistry, and Metabolomics**

Kevin Armbrust, [armbrust@msci.msstate.edu](mailto:armbrust@msci.msstate.edu)  
Steve Lehotay, [steven.lehotay@ars.usda.gov](mailto:steven.lehotay@ars.usda.gov)  
Michael Krolski, [mike.krolski@bayer.com](mailto:mike.krolski@bayer.com)  
Rod Bennet, [rodney@bennett@jframerica.com](mailto:rodney@bennett@jframerica.com)  
Chad Wujcik, [chad.e.wujcik@monsanto.com](mailto:chad.e.wujcik@monsanto.com)  
Teresa Wehner, [t.a.wehner@att.net](mailto:t.a.wehner@att.net)

#### **Air Quality and Agriculture**

Laura McConnell, [laura.mcconnell@bayer.com](mailto:laura.mcconnell@bayer.com)  
Jim Seiber, [jnseiber@ucdavis.edu](mailto:jnseiber@ucdavis.edu)  
Amrith Gunasekaram, [amrith.gunasekara@cdph.ca.gov](mailto:amrith.gunasekara@cdph.ca.gov)  
Scott Yates, [scott.yates@ars.usda.gov](mailto:scott.yates@ars.usda.gov)

#### **Agrochemical Toxicology and Mode of Action**

John Clark, [jclark@vasci.umass.edu](mailto:jclark@vasci.umass.edu)  
Tom Sparks, [tcsparks@dow.com](mailto:tcsparks@dow.com)  
Dave Soderlund, [dms6@cornell.edu](mailto:dms6@cornell.edu)

#### **Bioenergy, Bioproducts, and Biochars: Advances in Production and Use**

Ashli Brown, [abrown@bch.msstate.edu](mailto:abrown@bch.msstate.edu)  
Cathleen Hapeman, [cathleen.hapeman@ars.usda.gov](mailto:cathleen.hapeman@ars.usda.gov)

#### **Biorationale Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture**

Steve Duke, [stephen.duke@ars.usda.gov](mailto:stephen.duke@ars.usda.gov)  
Joel Coats, [jcoats@iastate.edu](mailto:jcoats@iastate.edu)  
Marja Koivunen, [mekoivunen@gmail.com](mailto:mekoivunen@gmail.com)

#### **Development of Value-added Products from Agricultural Crops and Byproducts**

Jim Seiber, [jnseiber@ucdavis.edu](mailto:jnseiber@ucdavis.edu)

#### **Developments in Integrated Pest Management and Resistance Management**

Jeff Bloomquist, [jbquist@epi.ufl.edu](mailto:jbquist@epi.ufl.edu)  
Tory Anderson, [anderst@vt.edu](mailto:anderst@vt.edu)  
Si Hyeock Lee, [shlee22@snu.ac.kr](mailto:shlee22@snu.ac.kr)

#### **Discovery and Synthesis of Bioactive Compounds**

Thomas Stevenson, [thomas.m.stevenson@dupont.com](mailto:thomas.m.stevenson@dupont.com)  
Wenming Zhang, [wenming.zhang@dupont.com](mailto:wenming.zhang@dupont.com)

#### **Ecosystem and Human Health/Exposure and Risk Assessment**

Bob Krieger, [bob.krieger@ucr.edu](mailto:bob.krieger@ucr.edu)  
Curt Lunchick, [curt.lunchick@bayer.com](mailto:curt.lunchick@bayer.com)  
Dan Stout, [stout.dan@epa.gov](mailto:stout.dan@epa.gov)

#### **Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals**

Tom Potter, [tom.potter@ars.usda.gov](mailto:tom.potter@ars.usda.gov)  
Pam Rice, [pamela.rice@ars.usda.gov](mailto:pamela.rice@ars.usda.gov)  
Jay Gan, [jgan@ucr.edu](mailto:jgan@ucr.edu)

#### **Formulations and Application**

Erdal Ozkan, [ozkan.2@osu.edu](mailto:ozkan.2@osu.edu)

#### **Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial and Worker Protection Products**

George Cobb, [george.cobb@tiehh.ttu.edu](mailto:george.cobb@tiehh.ttu.edu)  
Laura McConnell, [laura.mcconnell@bayer.com](mailto:laura.mcconnell@bayer.com)  
Jay Gan, [jgan@ucr.edu](mailto:jgan@ucr.edu)  
Teresa Wehner, [t.a.wehner@att.net](mailto:t.a.wehner@att.net)

#### **Regulatory Harmonization and MRLs**

Ken Racke, [kracke@dow.com](mailto:kracke@dow.com)  
Philip Brindle, [philip.brindle@basf.com](mailto:philip.brindle@basf.com)  
Heidi Irrig, [heidi.irrig@syngenta.com](mailto:heidi.irrig@syngenta.com)

#### **Technological Advances and Applications in Agricultural Science (e.g., Nanotechnology, Genetically-modified Organisms, and Biocontrol Agents)**

John Clark, [jclark@vasci.umass.edu](mailto:jclark@vasci.umass.edu)  
Daniel Goldstein, [daniel.a.goldstein@monsanto.com](mailto:daniel.a.goldstein@monsanto.com)

#### **Urban Agriculture: Turf, Ornamentals, Household Products, and Water-Re-Use**

John Clark, [jclark@vasci.umass.edu](mailto:jclark@vasci.umass.edu)

#### **Additional Symposia at most National Meetings**

- Awards and Tributes
- Protection of Agricultural Productivity, Public Health and the Environment – General Session
- Special Topics





## Comments from the Vice-Chair

Jay Gan, 2016 Program Committee Chair

Strong programming and long-term planning are critical components to the continued success of AGRO. In 2014, Program Chair Cathleen Hapeman and the IUPAC Scientific Programming Committee put together AGRO's largest scientific program for the 13th IUPAC International Congress of Pesticide Chemistry held during the meeting of the ACS 248th National Meeting and Exposition in San Francisco. Over the past year, Program Chair Pamela Rice and the Program Committee have put together another outstanding scientific program for the 250<sup>th</sup> ACS National Meeting and Exposition in Boston, MA, to take place in August of 2015.

As an individual or as part of a team, organizing and chairing a symposium are rewarding, career-building, and great-networking experiences. AGRO enthusiastically supports symposium organizers with 7 Easy Steps for Organizing a Symposium, technical assistance from Officers and Program Champions of the 15 standing topics, and some funding.

Let us continue this momentum and history of strong programming with brainstorming and preparation of symposia topics for the 252<sup>th</sup> ACS National Meeting to be held in Philadelphia, PA, in August of 2016. We are actively seeking volunteers, especially newer scientists, and call upon Standing Program Champions to submit their ideas. The theme for the National Meeting is *Chemistry of the People, by the People and for the People*.

We look forward to hearing from you! Please submit your programming ideas before, during, or after the Boston meeting to jgan@ucr.edu. If you are attending the Boston meeting, we encourage you to participate in the luncheon or submit your ideas to the designated location at the AGRO table. Look for announcements in the e-newsletter, the next *PICOGRAM*, and on the website, and plan to attend the Program Planning Meeting in Boston.



## PROGRAMMING & OUTREACH ACTIVITIES

### 2015 – 2016

Activity/Event	Leaders/ Champions	Status	Actions Required
2014 - 2015 AGRO Lunch and Learn Webinar Series	Laura McConnell	<ul style="list-style-type: none"> <li>Recordings of all previous webinars available free on the AGRO website</li> <li><b>Accepting proposals for webinars</b></li> </ul>	<ul style="list-style-type: none"> <li>Contact Laura McConnell or Julie Eble</li> </ul>
52nd North American Chemical Residue Workshop July 19-22, 2015 St Pete Beach, Florida	Steve Lehotay	<ul style="list-style-type: none"> <li>Co-Sponsored by AGRO</li> <li>Program to be released in February</li> </ul>	<ul style="list-style-type: none"> <li>Submit abstracts for oral presentations by April 15, 2015</li> </ul>
Crops and Chemicals USA	Scott Jackson Jessica Short	<ul style="list-style-type: none"> <li>Co-Sponsored by AGRO</li> <li>Six co-located conferences to be held in July 2015</li> </ul>	<ul style="list-style-type: none"> <li>Contact Scott Jackson for more information</li> </ul>
250th ACS National Meeting August 16-20, 2015 Boston, Massachusetts	Pamela Rice	<ul style="list-style-type: none"> <li><b>Call for Papers released – submit abstracts before March 16, 2015. DEADLINE IS FIRM</b></li> </ul>	<ul style="list-style-type: none"> <li>Prepare to attend and participate in the meeting</li> </ul>
Pacificchem 2015 December 15-20, 2015 Honolulu, Hawaii	John Johnston	<ul style="list-style-type: none"> <li>Three symposia to be sponsored by AGRO</li> <li>✓ Phytochemicals for Crop Protection: Discovery to Molecular Target</li> <li>✓ Proteomics and Metabolomics in Agricultural, Environmental, and Public Health Sciences</li> <li>✓ Opportunities and Advancements in Rice Research and Aquaculture Research</li> </ul>	<ul style="list-style-type: none"> <li>Submit abstracts by April 3, 2015</li> </ul>
252nd ACS National Meeting August 21-25, 2016 Philadelphia, Pennsylvania	Jay Gan	<ul style="list-style-type: none"> <li>Check the eNewsletter for planning session information at Boston</li> </ul>	<ul style="list-style-type: none"> <li>Volunteers and champions <b>NEEDED!!</b></li> <li>Symposia proposals due November 15, 2015.</li> </ul>

## Future ACS National Meetings

### 249th ACS National Meeting & Exposition

*The Chemistry of Natural Resources*  
March 22-26, 2015, Denver, Colorado

### 250th ACS National Meeting & Exposition

*Innovation: From Discovery to Application*  
August 16-20, 2015, Boston, Massachusetts

### 251st ACS National Meeting & Exposition

*Computers in Chemistry*  
March 13-17, 2016, San Diego, California

### 252nd ACS National Meeting & Exposition

*Chemistry of the People, by the People and for the People*  
August 21-25, 2016, Philadelphia, Pennsylvania

### 253rd ACS National Meeting & Exposition

April 2-6, 2017, San Francisco, California

### 254th ACS National Meeting & Exposition

August 20-24, 2017, Washington, DC

### 255th ACS National Meeting & Exposition

March 18-22, 2018, New Orleans, Louisiana

### 256th ACS National Meeting & Exposition

August 19-23, 2018, Boston, Massachusetts

## Thinking about organizing a symposium for a future National Meeting?

*It's really not that difficult. Here's how:*

### AGRO SUPPORTS SYMPOSIUM ORGANIZERS

- Assistance with developing a symposium summary and Call for Papers
- Help with identifying co-organizers
- Funding to help with travel, non-member registrations (\$500 each ½ session)

### 7 EASY STEPS FOR ORGANIZING A SYMPOSIUM

1. Propose, adopt or borrow a symposium topic (e.g., *Chemistry for and from Agriculture*)
2. Inform the AGRO program chair, who will add to the list and arrange for Program Committee endorsement
3. Develop a paragraph summary of the symposium scope and potential lecture topics (template is on the website)
4. Identify one or more co-organizers if desired
5. Recruit speakers and invite abstracts (Half-day = 5-8 speakers; 1 day = 12-15 speakers)
6. Review and accept abstracts, order your speakers/sessions
7. Chair the symposium session

---

## 2014 - 2015 Lunch and Learn Webinar Series

### Molecular Approaches in the Elucidation of Insecticide Mode of Action and Resistance Mechanisms

February, 4, 2015 at 12:00PM Eastern Time or 17:00 GMT



Molecules, monitoring, mechanisms, and management: failure and success

Dr. Ralf Nauen  
Bayer CropScience

### Biopesticides: Navigating the Regulatory Landscape in the European Union and the United States

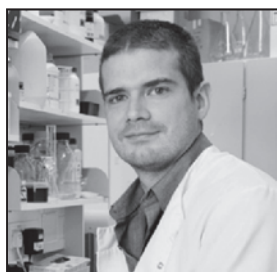
March 4, 2015 at 12:00PM Eastern Time or 17:00 GMT

Dr. Matthias Weidenauer, Battelle  
Dr. Russell Jones, US EPA

### Acceptance of Biotech in Specialty Crops

April 1, 2015 at 12:00PM Eastern Time

Dr. Kent J. Bradford, University of California  
Dr. Ralph Scorza, USDA-ARS



A genomic approach to understanding insecticide resistance in the peach potato aphid, *Myzus persicae*

Dr. Chris Bass  
Rothamsted Research

## SPECIAL THANKS TO OUR SPONSOR FOR THEIR GENEROUS CONTRIBUTION!





July 19-22, 2015

TradeWinds Island Grand  
St. Pete Beach, Florida USA

**JOIN US!**

Our workshop reflects the scope and international nature of topics covered in a scientific program which includes: pesticides, veterinary drugs, environmental contaminants, toxins, and other chemicals of concern in food, environmental, and related applications

**Expected Submission Deadlines:**

Oral presentations: April 15; Poster presentations: June 1  
Manuscripts related to the meeting may be considered for publication in a special section of *Journal of Agricultural and Food Chemistry*

*[www.nacrw.org](http://www.nacrw.org)*

*Sponsored by FLAG Works, Inc., a non-profit organization which has an agreement with ACS (via the AGRO Division) to help plan and to coordinate this event*



# PERU DISTINGUISHED LECTURE SERIES In Lima, Peru

*AGRO has partnered with  
Dr. Luis Ruzo*

*to create the  
Peru Distinguished Lecture Series*

*at the  
Universidad Nacional Agraria La Molina  
(UNALM, the Agricultural University)  
in  
Lima, Peru*



Speakers and presentation topics are selected by a committee of AGRO members and faculty at the Agricultural University of Peru.

The primary liaison in Lima is Professor Javier Vasquez, Castro Department of Entomology, Agricultural University of Peru.

### ***Nominations are sought for the 2015 Lecture Series***

Self-nominations are acceptable  
Include a brief outline of the proposed lecture topic  
and a short CV or resume of the proposed presenter.

Nominations should be submitted to  
John Johnston, [john.johnston@fsis.usda.gov](mailto:john.johnston@fsis.usda.gov)  
Keith Solomon, [ksolomon@uoguelph.ca](mailto:ksolomon@uoguelph.ca)  
Steve Duke, [stephen.duke@ars.usda.gov](mailto:stephen.duke@ars.usda.gov)

Applied/practical topics pertaining to pest management  
and/or agrochemicals are preferred.  
Speakers will receive reimbursement of travel expenses  
and a \$1000 honorarium.

# 5<sup>TH</sup> LATIN AMERICAN PESTICIDE RESIDUE WORKSHOP

# LAPRW 2015

FOOD AND ENVIRONMENT

Abstracts  
submission deadline

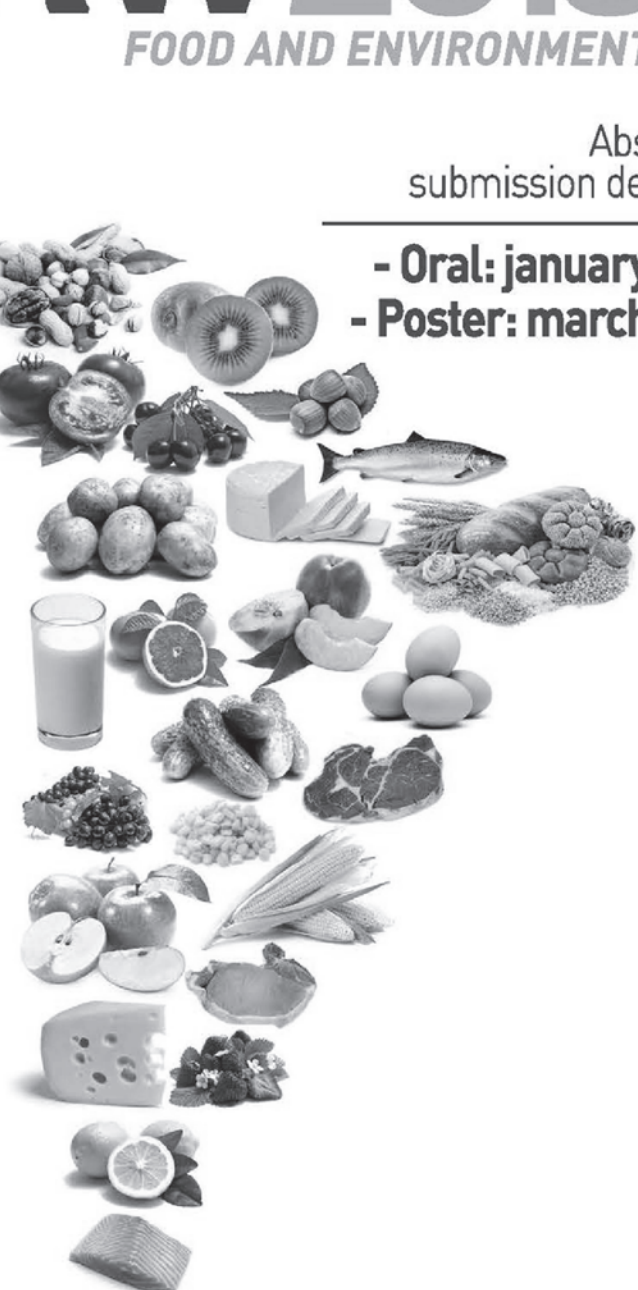
- Oral: January 30<sup>th</sup>
- Poster: March 15<sup>th</sup>

# Stgo Chile

Santiago de Chile  
MAY 10-13, 2015

Centro de Extensión de la  
P. Universidad Católica de Chile

Website: [www.laprw2015.com](http://www.laprw2015.com)  
Contact: [info@laprw2015.com](mailto:info@laprw2015.com)



Organized by:



FACULTAD DE AGRONOMÍA  
E INGENIERÍA FORESTAL  
PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE



FiNet  
IGCfood intelligence net

Co-Organizers:



Agencia Chilena  
para la Calidad  
e Inocuidad  
Alimentaria.



Comisión  
Chilena  
de Energía  
Nuclear



# PACIFICHEM 2015

www.pacificchem.org

DECEMBER 15 – 20, 2015

HONOLULU, HAWAII

2015 International Chemical Congress  
of Pacific Basin Societies (Pacificchem)

More than 250 symposia are planned for this event!

ABSTRACT SUBMISSION: JANUARY 1 – APRIL 1, 2015

## AGRO SPONSORED SYMPOSIA

### Phytochemicals for Crop Protection: Discovery to Molecular Target

Numerous secondary metabolites that act on insects, weeds, and pathogens have been described in literature. However, biosynthesis, gene regulation, and modes of action of most metabolites are still elusive. This symposium will focus on biosynthesis, actions on receptors, and resistance in target organisms for secondary metabolites involved in plant-insect, plant-microbe, and plant-plant interactions; omics methodology with next generation sequencing; and target and non-target mass/NMR analyses of plant metabolites.

### Proteomics and Metabolomics in Agricultural, Environmental, and Public Health Sciences

Proteomics and metabolomics are powerful tools in agricultural, ecological, and public health research. Proteomics and metabolomics can provide key insights into the normal physiological state of a cell or organism and responses to adverse stimuli such as toxicants and disease. This symposium will focus on applications of proteomics and metabolomics to: 1) biomarker discoveries in response to stresses such as pathogens and pesticides, 2) food safety, 3) food authentication, 4) pesticide mode of action, 5) disease mechanisms, and 6) linking exposures to adverse outcome pathways.

### Opportunities and Advancements in Rice Research and Aquaculture Research

Rice and fish are important sources of nutrition for the world's population. Rice and aquaculture research provide critical advancements to permit feeding of the growing world population in the face of accelerated climate change, pests, and disease. This symposium will include chemistry, biochemistry, and molecular biology-based research that focuses on improving productivity (in traditional and non-traditional rice and aquaculture environments), adapting to climate change, increasing resistance to pests and diseases, improving nutrition, food safety (chemical residues, mitigation of natural toxicants), and regulatory-trade considerations.

**For more information, contact**

John Johnston at [john.johnston@fsis.usda.gov](mailto:john.johnston@fsis.usda.gov)

or

visit the website [www.pacificchem.org](http://www.pacificchem.org)





# AGRO Division Officers, Councilors, and Executive Committee

## AGRO DIVISION OFFICERS



**Division Chair**  
**Cathleen J. Hapeman**  
 301-504-6451  
 cathleen.hapeman@ars.usda.gov



**Program Chair**  
**Pamela J. Rice**  
 612-624-9210  
 pamela.rice@ars.usda.gov



**Vice Chair**  
**Jay Gan**  
 951-827-2712  
 jgan@ucr.edu



**Secretary**  
**Sharon K. Papiernik**  
 605-693-5201  
 sharon.papiernik@ars.usda.gov



**Treasurer**  
**Del A. Koch**  
 573-777-6003  
 kochd@abclabs.com

## COUNCILORS

Rodney Bennett, rodney.bennett@jrfamerica.com  
 Jeanette Van Emon, vanemon.jeanette@epa.gov  
 Aldos Barefoot, Alternate  
 Kevin Armbrust, Alternate

## EXECUTIVE COMMITTEE MEMBERS

### 2013 – 2015

Troy Anderson, anderst@vt.edu  
 Michael Barrett, barrett.michael@epa.gov  
 Wenlin Chen, wenlin.chen@syngenta.com  
 John Johnston, john.johnston@fsis.usda.gov  
 Steven Lehotay, steven.lehotay@ars.usda.gov

### 2014 – 2016

John Beck, john.beck@ars.usda.gov  
 Cheryl Cleveland, cheryl.cleveland@basf.com  
 Ke Dong, dongk@cns.msu.edu  
 Marja Koivunen, mekoivunen@gmail.com  
 Amy Ritter, rittera@waterborne-env.com

### 2015 – 2017

Julie Eble, julie.eble@criticalpathservices.com  
 Lacey Jensen, ljensen@vt.edu  
 Mike Krolski, mike.krolski@bayer.com  
 Leah Riter, leah.s.riter@monsanto.com  
 Thomas Sparks, tcsparks@dow.com

## AGRO Division Past Chairs

1969	Donald G. Crosby	1985	John Harvey, Jr.	2001	Jeffery Jenkins
1970	Elvins Y. Spencer	1986	Henry J. Dishburger	2002	Terry D. Spittler
1971	Wendell Phillips	1987	James N. Seiber	2003	Jeanette Van Emon
1972	Philip C. Kearney	1988	Paul A. Hedin	2004	Rodney Bennett
1973	Roger C. Blinn	1989	Gustave K. Kohn	2005	Allan Felsot
1974	Charles H. Van Middlelem	1990	Willa Garner	2006	R. Donald Wauchope
1975	Henry F. Enos	1991	Guy Paulson	2007	Laura L. McConnell
1976	Julius J. Menn	1992	Joel Coats	2008	John J. Johnston
1977	James P. Minyard	1993	Larry Ballantine	2009	Kevin L. Armbrust
1978	Gerald G. Still	1994	Nancy N. Ragsdale	2010	Ellen L. Arthur
1979	S.K. Bandal	1995	Don Baker	2011	Kenneth D. Racke
1980	Jack R. Plimmer	1996	Barry Cross	2012	Aldos C. Barefoot
1981	Marguerite L. Leng	1997	Willis Wheeler	2013	John M. Clark
1982	Gino J. Marco	1998	Judd O. Nelson	2014	Stephen O. Duke
1983	G. Wayne Ivie	1999	Richard Honeycutt		
1984	Robert M. Hollingsworth	2000	Ann T. Lemley		

# What the AGRO Committees Do

## AWARDS COMMITTEE

**Purpose:** This committee administers awards offered by the Division to the extent authorized by the Division Executive Committee. The awards program is an integral part of the Division, its purpose being to recognize and encourage outstanding contributions to our science and our Division.

**Composition:** The Awards Committee Chair is appointed. The Committee consists of ten or more members who are senior and mid-career scientists, including past winners of the ACS International Award for Research in Agrochemicals and/or Division Fellows.

## BYLAWS COMMITTEE

**Purpose:** This Committee ensures that the Division's bylaws are maintained in accordance with changes in Division operations and in accordance with any changes requested either by the ACS, by ACS bylaw changes, or by the Division Executive Committee.

**Composition:** The Bylaws Committee is appointed; members consist of currently serving Councilors.

## \*\* COMMUNICATIONS COMMITTEE

**Purpose:** This Committee coordinates the Division's communication and publication activities. This includes management of the AGRO Division website, publication of the *PICOGRAM*, compilation of the AGRO eNewsletter, advancement of publication efforts through ACS Books, and publicizing of Divisional activities.

**Composition:** The Communications Committee Chair is appointed. The Committee Chair appoints at least three additional members.

## DEVELOPMENT COMMITTEE

**Purpose:** This Committee interfaces with the patrons of our industry to coordinate support of our Division's scientific activities.

**Composition:** The Development Committee Chair is appointed. The Treasurer is a member, and several other members are appointed by the Committee Chair.

## \*\* EARLY CAREER SCIENTIST COMMITTEE

**Purpose:** This Committee promotes the interests of students, postdoctoral researchers, and early career scientists and enhances their participation in programs of the AGRO Division. The Committee oversees education and development efforts concerning early career scientists and administers the graduate student travel award program and the New Investigator Award.

**Composition:** The Early Career Scientist Committee Chair is appointed. The committee consists of 6 or more members including at least 2 graduate students or recent post-grads, one member of the Membership Committee, and one member of the Communications Committee.

## FINANCE COMMITTEE

**Purpose:** The purpose of the Finance Committee is to monitor the financial activities of the Division.

**Composition:** The Finance Committee Chair is appointed; incumbent Treasurer is an ex-officio member. The Committee Chair nominates approximately four members who have reasonably strong financial skills.

## \*\* INTERNATIONAL ACTIVITIES COMMITTEE

**Purpose:** The International Activities Committee (IAC) seeks to enhance the role of AGRO in the broad international scientific community and to enrich its membership experience by promoting international collaborations and interactions among its members. It exists to facilitate coordination of international activities within AGRO, and to increase the participation of scientists from all countries in AGRO. The committee also acts to provide information and support to scientists outside of the United States who are interested in AGRO.

**Composition:** The International Activities Committee Chair is appointed. The Committee consists of six or more members.

## NOMINATING COMMITTEE

**Purpose:** The Nominating Committee develops a slate of qualified candidates for the elected Division offices that need to be filled for the following calendar year.

**Composition:** Nominating Committee Chair is Immediate Past Chair, other members are traditionally the past two Chairs.

## \*\* MEMBERSHIP COMMITTEE

**Purpose:** The purpose of the Membership Committee is to develop programs and activities for the recruitment of new members to the Division and to the ACS, as well as to develop activities and programs for the retention of existing members.

**Composition:** Membership Committee Chair is appointed; three or more members are appointed with the advice and approval of the Executive Committee.

## \*\* PROGRAMMING COMMITTEE

**Purpose:** The purpose of the Programming Committee is to plan, develop, and implement the Division's technical program.

**Composition:** Programming Committee Chair is Division Vice-Chair; Chair-Elect is a committee member. The Committee Chair nominates as many members as necessary to assure that the Division's programming requirements are met.

## \*\* SOCIAL COMMITTEE

**Purpose:** This Committee directs social events in coordination with other Committees and maintains a hospitality table in the area where Division sessions are located at the fall ACS meeting.

**Composition:** The Social Committee Chair is appointed; additional members are identified by the Committee Chair and appointed with Division Chair and EC approval.

## STRATEGIC PLANNING COMMITTEE

**Purpose:** This Committee will assist the Executive Committee in development and implementation of the Division's strategic plan.

**Composition:** The Strategic Planning Committee Chair is appointed and confirmed by the Executive Committee. The Committee Chair appoints eight or more members.

**\*\* New volunteer committee members are being sought**

# AGRO Division Committees

## AWARDS COMMITTEE

James Seiber, Chair, 530-752-1465,  
jseiber@ucdavis.edu

**MEMBERS:** John Casida, Janice Chambers, John Marshall  
Clark, Joel Coats, Steve Duke, Bruce Hammock, Ernest  
Hodgson, Robert Hollingworth, Bob Krieger, Ralph Mumma,  
Hideo Ohkawa, Sharon Papiernik, Nancy Ragsdale, Will  
Ridley, David Soderlund, Don Wauchope, Izuru Yamamoto,  
Scott Yates

## BYLAWS COMMITTEE

Rodney Bennett, rodney.bennett@jrfamerica.com  
Jeanette Van Emom, vanemon.jeanette@epa.gov

## COMMUNICATIONS COMMITTEE

Cathleen Hapeman, Co-Chair, *PICOGRAM* Editor  
301-504-6451, cathleen.hapeman@ars.usda.gov  
Laura McConnell, Co-Chair, Webmaster  
919-549-2012, laura.mccconnell@bayer.com  
Jeff Jenkins – Public Relations  
Nancy Ragsdale – Pesticide Outlook Liaison  
Sharon Papiernik – Awards Coordinator  
Yelena Sapozhnikova – eNewsletter Coordinator

## DEVELOPMENT COMMITTEE

Scott Jackson, Co-Chair, 919-547-2349  
scott.jackson@basf.com  
Del Koch, Co-Chair, 573-443-9003  
kochd@abclabs.com  
Laura McConnell, 919-549-2012  
laura.mccconnell@bayer.com

## EARLY CAREER SCIENTIST COMMITTEE

Diana Aga, Co-Chair, 716-645-4220  
dianaaga@buffalo.edu  
Marja Koivunen, Co-Chair, 530-574-1837  
mekoivunen@gmail.com  
Steven Lehotay, New Investigator Award Coordinator  
215-233-6433, steven.lehotay@ars.usda.gov  
**MEMBERS:** Troy Anderson, David Barnekow, John Clark, Joel  
Coats, Jay Gan, Vincent Hebert, Ann Lemley, Glenn Miller

## FINANCE COMMITTEE

Joel Coats, Chair, jcoats@iastate.edu  
Del Koch, Ex Officio, kochd@abclabs.com  
**MEMBERS:** Kevin Armbrust, Al Barefoot, Barry Cross, Scott  
Jackson, Kenneth Racke

## INTERNATIONAL ACTIVITIES COMMITTEE

Ken Racke, Co-chair, 317-337-4654  
kracke@dow.com

Jay Gan, Co-chair, 951-827-2712  
jgan@ucr.edu

**MEMBERS:** Eloisa Dutra Caldas, Paul Hendley, John Johnston,  
Rai Kookana, Steven Lehotay, Weiping Liu, Laura  
McConnell, Karina Miglioranza, Jim Seiber, Keith Solomon,  
John Unsworth

## MEMBERSHIP COMMITTEE

Steven J. Lehotay, Chair, 215-233-6433  
steven.lehotay@ars.usda.gov  
**MEMBERS:** John Beck, Leah Riter, Daniel Swale

## 2015 NOMINATING COMMITTEE

Steve Duke, Chair, 662-915-1036  
stephen.duke@ars.usda.gov  
John Clark, 413-545-1052,  
jclark@vasci.umass.edu  
Aldos Barefoot, 302-451-5856  
aldos.c.barefoot@dupont.com

## PROGRAMMING COMMITTEE (see p. 60 for listing)

Jay Gan, Chair, 951-827-2712, jgan@ucr.edu

### Webinar Subcommittee

Julie Eble, Co-Chair, 610-558-3001  
julie.eble@criticalpathservices.com  
Laura McConnell, Co-Chair, 919-549-2012  
laura.mccconnell@bayer.com  
**MEMBERS:** John Clark, Steve Duke, Cody Howard

## SOCIAL COMMITTEE

Jeff Jenkins, Co-Chair for venue, 541-737-5993  
jeffrey.jenkins@oregonstate.edu  
Jessica Malin, Co-Chair for social program, 302-451-3597  
jessica-nicole.malin@dupont.com  
Julie Eble, 610-558-3001  
julie.eble@criticalpathservices.com  
Patricia Rice, 919-547-2668  
patricia.rice@basf.com

## STRATEGIC PLANNING COMMITTEE

Ashli Brown, 2015-2016 Chair, 662-325-3428  
abrown@mscl.msstate.edu  
Laura McConnell, Advisor, 919-549-2012  
laura.mccconnell@bayer.com  
**MEMBERS:** *This Committee will be reconstituted in Spring 2015  
in preparation for the 2015/6 Strategic Planning Meeting*

**AGRO Division Annual Business and Governance Meeting**  
**American Chemical Society**  
**248<sup>th</sup> National Meeting & Exposition**  
**San Francisco, California**  
**Tuesday, August 12, 2014, 6:00 - 9:00 PM**  
**Marriott Marquis Pacific Room J**

**Minutes**

**Sharon Papiernik, Secretary**

Note: Includes minutes recorded during the business meeting and reports received by the secretary in August 2014.

**ATTENDANCE**

*Officers:* Steve Duke, Chair; Cathleen Hapeman, Program Chair; Pam Rice, Vice Chair; Del Koch, Treasurer; Sharon Papiernik, Secretary

*Others:* Diana Aga, Kevin Armbrust, Aldos Barefoot, Michael Barrett, John Beck, Rod Bennett, Ashli Brown-Johnson, Wenlin Chen, Cheryl Cleveland, Joel Coats, Ke Dong, Jay Gan, John Johnston, Marja Koivunen, Mike Krotski, Steve Lehotay, Ken Racke, Patricia Rice, Amy Ritter, Jim Seiber, Thomas Sparks, Jeanette Van Emon

*Guests:* Beth Dederick, John Fain, Aaron Gross, Andy Malec, Kalumbu Malekani, Michelle Hladik, Paul Reibach, Solito Sumulong, Teresa Wehner

**Secretary's Report**

- AGRO nominated Dr. Sergio Nanita for the Kavli Lectureship. Dr. Nanita was not selected and may be re-nominated in 2015.
- AGRO submitted 2 Innovative Project Grants; both were awarded.
- Annual report was submitted to ACS; ballot was prepared; officers certified.

**Treasurer's Report**

- Cash on hand as of 11 Aug 2014: \$512,208
- AGRO Federal Tax return mailed 2 Aug 2014

2014 Income				
IUPAC Scholarships *	Luncheon Dinner Seminars	AGRO Scholarships	ACS Grants and Allocations	Total
\$279,229	\$50,000	\$14,325	\$40,141	\$383,695

\* Does not include \$62,480 IUPAC-related income from 2013

Q: Does IUPAC provide any funding to AGRO based on attendance, as ACS does? A: No, \$6K was provided before Congress.

**International Symposium on Adjuvants for Agrochemicals**

- Andy Malec and Solito Sumulong
- ISAA will be meeting in 2016 in Monterey California (meets every 3 years with technical sessions and trade expo)
- ISAA publishes symposium proceedings and semiannual publications
- Previous chairs expanded scope from adjuvants to all adjuvanted technology
- Seeking partnership on promotion and programming. Maybe a symposium on adjuvants/formulation in Boston? AGRO co-sponsored session on risk assessments and registration at ISAA?
- Solito will work with Pam Rice on organizing symposia in Boston

**Nominating Committee**

Announced newly-elected officers and committee members: Jay Gan (2015 Vice Chair), Sharon Papiernik (Secretary), Del Koch (Treasurer), Julie Eble, Lacey Jenson, Michael Krotski, Leah Riter, Thomas Sparks (Executive Committee members), Jeanette Van Emon and Rodney Bennett (Councilors), Kevin Armbrust and Aldos Barefoot (Alternative Councilors)

**Finance Committee**

Finances are in good shape. Investments have done well as the economy in general has done well. T. Rowe Price is up \$5K from last summer (\$154K balance). Education Trust up \$51K this year; total is \$429K. Great attendance at this year's meeting will result in a higher than average allotment from ACS.

**Awards Committee**

- Report is published in *PICOGRAM*.
- Fumio Matsomura symposium was well-attended and may continue.
- Seiber encourages AGRO to nominate AGRO members and award winners for national ACS awards. ACS Fellow nomination success rate is about 40%. Criteria are service to ACS and scientific accomplishments.
- Seiber relayed thanks for publishing, reviewing, editing duties for JAFIC. There will be a new editor in 2015.

**Bylaws Committee**

The new abbreviated approval process is in effect.

**Early Career Scientist Committee**

*Student Travel Awards*

- An overwhelming number of applications for student travel grants were received this year. Total of 66 students from all over the world submitted the required documents by the deadline of March 10, 2014. Out of these, a total of 52 students were chosen to receive \$800 travel grant to help with the travel and accommodation costs. The geographic distribution of travel awardees:
 

North America	19
Asia	14
Europe	8
South America	8
Africa	2
Australia	1
- Review of the applications was based on short abstracts, extended poster abstracts and letters of reference from academic advisors. This was a major effort, and we could

not have possibly accomplished it on time without help from Ann Lemley and Laura McConnell. Thank you! Kudos to Cathleen Hapeman and Ken Racke as well for their input and assistance!

- Students were notified about the award decisions by email the second week of April, and they received their award checks at the student luncheon on Monday, August 11.
- Unlike previous years, we do not have a specific poster session for student posters at this meeting. Posters are presented in their appropriate sessions on Mon-Thu based on the topic area. Additionally, the student posters were up at the Sci-Mix on Monday evening.
- We would like to propose that in the future, the extended abstracts and letters of recommendation should be directed to a single email address to avoid confusion. Perhaps AGRO can establish an email account for studentposters@... to facilitate easy processing of all applications.

#### *New Investigator Award*

- Nine nominees for New Investigator Award. Thanks to judges. Three finalists received \$1000 for each awardee. Winner will be announced at the banquet. Nomination package requirements may be refined to include CV.

#### **Programming Committee**

##### *IUPAC 2014*

- IUPAC: report from Ken includes program summary; appended to minutes
- Some topics are drawing more attendees than expected, and the rooms were too small. One session had to be relocated because it was so crowded it became a fire hazard. Program Chairs should be careful in assigning rooms in the future. Information from symposia attendance is available from ACS.
- Rod will present this information at DAC tomorrow.

##### *Boston 2015*

- Programming will be discussed at noon meeting on Thursday. AGRO members are encouraged to mentor someone in co-sponsoring a symposium. Look for opportunities to co-program with other ACS Divisions.

##### *SETAC*

- Pam Rice described a survey being conducted by SETAC as part of the North America Horizon Scanning Project. "SETAC is soliciting research questions that, if answered, would substantially advance our understanding of stresses to sustainable environmental quality." (from SETAC website)

**Motion:** Bennett moved that the survey as Pam described should be distributed to the AGRO membership and results provided to Pam for coordination with SETAC. Motion passed.

##### *ECYART/AGRO*

John Johnston announced the slate of presenters for the 2015 program:

- May 9: Erdal Ozkan, Pesticide Application Technologies
- July 18: David Mota-Sánchez, Monitoring Insecticide Resistance
- August 22: Terrell Salmon, Control of Ag Vertebrate Pests
- October 13, 14: Luis Ruzo, Workshop on the Management/Use of Pesticides: A World View
- October 15: Luis Ruzo, Environmental Fate of Pesticides
- October 17: Susan Erhardt: Pesticide Residues on Foods

##### *Pacificchem*

AGRO will be sponsoring three symposia:

- Proteomics and Metabolomics in Agricultural, Environmental, and Public Health Sciences
- Opportunities and Advancements in Rice Research and Aquaculture Research
- Phytochemicals for Crop Protection: Discovery to Molecular Targets

#### **Councilors Report**

- New abstract submission service for national, regional, specialty conferences will be used beginning in 2015.
- Personalized ACS web is being developed.
- The ACS Strategic Plan is available on [strategy@acs.org](mailto:strategy@acs.org)
- ACS is holding roundtable on regional meetings – Partners in Progress
- 2-3 minute miniPod will replace podcasts from ACS.
- Proposal that a poster describing benefits of AGRO membership be displayed at SciMix and at other conferences (i.e., SETAC)

**Motion:** Lehotay moved that Lehotay draft a letter to DAC to state that increasing the dues of ACS beyond the needs of the organization is not in the best interest of ACS and its members. Discussion: what are other organizations charging? Letter should present Division point of view. Letter should come from Division chair, vetted by EC, and submitted to DAC. Operating expenses are not supported entirely by dues – ACS needs to use endowments, donations, publications, etc. Pensions and other increasing costs are depleting endowments. Dues and meeting registration fees are on a pre-determined escalating scale. Many members pay reduced fees. Vote: 6 Aye; 7 No; Councilors and several others abstained. Councilors will bring this up informally to DAC.

#### **Membership Committee**

- The number of AGRO Division members has hovered around 1200 since 2005 and numbered 1,216 on July 31, 2014. In arrangement with ACS Membership, all registrants at the 13th IUPAC Congress on Pesticides who aren't already AGRO members will be granted complimentary membership to AGRO for 1 year. This is free to AGRO, and ACS also offered 15/20/25% discounts for 1/2/3 year ACS memberships to IUPAC attendees who aren't currently ACS members. As a result of this arrangement, AGRO membership is expected to swell by 900, most of whom will be categorized as affiliate members. The goal of the membership committee and AGRO as a whole is to demonstrate the value of AGRO in the hopes that as many members as possible will renew each year. ACS will send an automatic renewal notice each year to all AGRO members.
- In the spring of 2014, Dan Stout resigned as Chair of the Membership Committee, and Steve Lehotay became the Chair. New volunteers joined the committee in the summer, and John Johnston chose to focus on other volunteer activities in AGRO. The current membership committee consists of Steve Lehotay, Leah Riter, Daniel Swale, and John Beck. Government, industry, and academia are represented to cover a broad scope.
- Thanks mostly to Ken Racke and Jeanette Van Emon, AGRO was awarded a Spring 2014 Innovative Project Grant for Divisional Enhancement from the ACS Committee on Divisional Activities for \$5,500 on "Increasing Recruitment, Retention, and Involvement of AGRO Division Membership."

- Thus far, \$700 has been spent to contribute toward the purchase of AGRO pins by the IUPAC Congress organization. The pins were handed to all IUPAC registrants and an email was sent to all AGRO members asking them to wear the pins and communicate about AGRO. Talking points were provided to help members recognize the activities and benefits of AGRO.
- Another \$70 was spent to purchase 1000 ACS/AGRO business cards, which were provided to AGRO volunteers and anyone else who wanted them at the IUPAC Congress. The intent is for AGRO members to hand them out to coworkers and other contacts during their travels.
- The remaining \$4,700 will be spent on other activities to retain and grow AGRO membership in the coming year. One idea from Daniel Swale is to cover registration costs for selected professors (and/or their students) who have not attended AGRO meetings in the past, but whose area of research fits within the scope of AGRO. This can be implemented at the Boston meeting in Aug. 2015 for about 10-15 scientists. Currently, the same professors and their students tend to be active in AGRO each year, and they dominate the travel grants and awards. The goal is to expand that number and generate continued, wider participation for years to come.
- Leah Riter proposes to increase the number of members from industry by emphasizing that employers will often cover cost of the annual AGRO membership.
- Also, ACS provided information about the number of AGRO members in local ACS sections, which is another area to emphasize in membership efforts at local meetings.
- AGRO volunteers Ashli Brown, Kevin Armbrust, Jay Gan, and Steve Lehotay participated in student and job fair events affiliated with ACS Careers at the meeting in San Francisco to increase awareness about AGRO among other chemists. Steve Lehotay and Cathleen Hapeman met with Lori Betsock and Nancy Bakowski in ACS to discuss how AGRO could gain involvement in their undergraduate and graduate programs. Input was made to modify the ACS College to Career website to include Agricultural Chemistry, and career profiles of agricultural chemists were added.

#### Strategic Planning Committee

- Co-Chairs Ashli Brown and Laura McConnell are working with Mark O'Brien from ACS to plan the next strategic planning meeting. The meeting will be held in February 2015

(an exact date is yet to be determined), Washington, D.C. at the ACS Headquarters. Having the meeting at ACS Headquarters reduces the overall cost. Additionally, there are several hotels in the area that offer government rates. Our last Strategic Planning Meeting was held in 2011.

#### Communications Committee

- The *PICOGRAM* was printed without abstracts; abstracts are available online. Hapeman relayed kudos to paid assistant and thanks to EC for supporting this support. AGRO website is frequently updated. E-mail blasts and e-newsletter are continuing. Laura McConnell is looking for volunteers for this but you must be committed. Aaron Gross and Daniel Swale are official photographers. Need photographer for closing ceremony. Next *PICOGRAM* to be issued in January.

#### Social Committee

Not represented; no report received.

#### Development Committee

Chair not present; no report received.

#### International Activities Committee

Gan left AGRO business meeting to attend ChemLuminary ceremony. Racke not available.

#### Continuing Business

- Incorporating AGRO. Duke's persistence did not pay off. He will pass along information to Councilors.
- IPG – already covered. Ken Racke submitted proposals. He will need to submit reports.
- National ACS awards – already covered
- ChemLuminary – Duke nominated AGRO and prepared a poster on international activities. Gan is representing AGRO at event. [AGRO learned later in the week that our Division was selected as a winner of the ChemLuminary Award.]

#### New Business

- Keith Solomon donated Sterling Hendricks Award to AGRO. A couple years ago, Lehotay refused Chemistry in Innovation award funds and the funds were returned to AGRO.
- Papiernik presented Past Chair pin to John Clark in absentia, Certificate of Appreciation to Steve Duke.
- Duke passed gavel to Hapeman.

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## Councilor Report for the 248<sup>th</sup> National Meeting & Exposition San Francisco, California August 10 - 14, 2014

Jeanette M. Van Emon and Rodney Bennett, Councilors

**SPECIAL PROCLAMATION** (Recognizing the AGRO Division/IUPAC Joint Meeting): As Councilors representing the AGRO Division, we read prepared statements on the Council floor during the governance meeting recognizing the excellent

participation in the combined ACS and IUPAC meetings. Special THANKS were given to the ACS President (Dr. Tom Barton) and to the ACS Staff who helped to make this joint meeting such a success. The ACS President recognized and thanked the AGRO Division for excellent programming and international outreach efforts. AGRO received a large round of applause from the entire Council!

Congratulations AGRO Members! The combined 13<sup>th</sup> IUPAC Congress of Pesticide Chemistry and the 248<sup>th</sup> ACS National Meeting was a **Great Success!**

#### **OTHER ACTIONS OF THE COUNCIL**

- Committee on Committees: The Council elected Mitchell R.M. Bruce, Judith N. Currano, Helen A. Lawlor, Zaida



Morales-Martinez, and Robert A. Pribush for the 2015-17 term.

- Council Policy Committee: The Council elected Lawrence Barton, Lynne P. Greenblatt, Peter C. Jurs, and Linette M. Watkins, for the 2015-17 term, and Andrea Twiss-Brooks for the remainder of a 2014-16 term.
- Committee on Nominations and Elections: The Council elected Lydia E.M. Hines, Robert L. Lichter, Mamie W. Moy, Anne T. O'Brien, and Eleanor D. Siebert for the 2015-17 term.

#### **COMMITTEE REPORTS**

- Candidates:
  - President-Elect, 2015: **Peter K. Dorhout, William A. Lester, Jr., Donna J. Nelson,**
  - Directors-at-Large, 2015-17: **Dawn A. Brooks, William F. Carroll, Jr., Barbara A. Sawrey, Ellen B. Stechel**
  - District III Director, 2015-17: **Pat N. Confalone, Anne S. DeMasi,**
  - District VI Director, 2015-17: **Paul W. Jagodzinski, Lee H. Latimer**
- On the recommendation of the **Committee on Committees**, Council voted to continue the Committee on Patents and Related Matters, and to continue the Committee on Technician Affairs.
- The **Budget and Finance Committee** reviewed the Society's 2014 probable year-end financial projection which calls for a Net Contribution from operations of \$14.4 million, (\$752,000 higher than the Approved Budget). Total revenues are projected at \$497.2 million. This is \$1.1 million or 0.2% unfavorable to the Approved Budget. The projected shortfall is primarily driven by lower-than-budgeted Electronic Services, Registration Fees, and Advertising revenues. Total expenses are projected at \$482.8 million, which is \$1.9 million or 0.4% favorable to the Approved Budget. This variance is the result of lower-than-budgeted expenses across multiple categories primarily in the Society's information services divisions (CAS and Publications).
- The **Education Committee (SOCED)** received an update on the new American Association of Chemistry Teachers (AACT), which is now accepting members. AACT member benefits include access to curricular resources, such as lesson plans; professional development opportunities; a subscription to *ChemMatters*; and an online member network.
- The **Committee on Science (COMSCI)** remains focused on three areas: increasing understanding of the emerging frontiers in science, recommending eminent chemical scientists for prestigious external awards, and developing public policies to advance science in society. ComSci has completed four on-demand video interviews with Nobel Laureates and other celebrated scientists, which will be linked with the onsite emerging science forums in 2015.
- The **Economic and Professional Affairs Committee (CEPA)** announced that the unemployment rate for all ACS chemists has dropped from 3.5% in March 2013 to 2.9% as of March 2014. However, the unemployment rate for new chemistry graduates as of August 2013 is considered to be an all-time high of 14.6%. However, when only bachelor's level graduates are considered the rate is 15.8%.
- The **Meetings and Exposition Committee (M&E)** reported that 11,847 papers were accepted for the 248th National Meeting in San Francisco with a total attendance 15,761. The Exposition had 432 booths with 285 exhibiting companies. The Committee voted to recommend to the Board of Directors the following sites for National Meetings: Boston – Fall 2024, 2029, 2031; San Diego – Spring 2025, 2031, and Fall 2027; New Orleans – Spring 2027, 2032; and Chicago – Fall 2022. M&E has voted to strengthen the current recording policy at National Meetings by including enforcement language. ***“Failure to follow the policy could result in disciplinary action up to and including expulsion from the meeting.”***
- The **Divisional Activities Committee (DAC)** is conducting a pilot program regarding a new type of recorded meeting content – three to five-minute videos (ACS POD Shorts) that focus on the most notable aspects of a full-length presentation. The **Multidisciplinary Program Planning Group (MPPG)** is proposing the following 2018-2019 national meeting themes to the Divisions for their consideration: Spring 2018 – ***Energy Solutions and the Environment***; Fall 2018 – ***Chemistry from Bench to Market***; and Spring 2019 – ***Chemistry for New Frontiers***.
- **DAC** voted to fund eight Innovative Project Grants, totaling \$33,750. The **DAC** is also developing a process to more readily permit Divisions to benefit from one another's innovations by developing a **BEST PRACTICES** database that will include funded Innovative Project Grant awards and describe how project successes were measured. The database will contain a collection of **BEST** ideas collected across the Divisions illustrating successful programs. Hopefully, this will inspire innovative thinking and stimulate cross-disciplinary discussion and programming. All Divisions are being asked to participate by providing their **BEST PRACTICES** ideas to the **DAC** for recognition and distribution. Multiple opportunities will be available in the coming year for rewarding Division participation. More on this later. ***Good opportunity for AGRO!***
- The **Committee on Local Section Activities (LSAC)** awarded over \$70,000 in IPGs. Divisions are encouraged to program and support their Local Sections and Regional Meeting Groups. ***Go AGRO!***
- The **Membership Affairs Committee (MAC)** reported that as of June 30, 2014 the total ACS membership was 158,869, a net increase of 512 since May 2014. The number of international members has grown by 312, to almost 25,000. The number of current, unpaid members declined in June 2014 and is 13% lower than June 2013. As of July 1, automatic renewal (on credit card) became available. The Committee also voted to extend its current test of an introductory membership offer to those who join the Society at non-ACS conferences and events to include the graduate students and potential Regular Members who attend ACS on Campus events worldwide each year.
- The **International Affairs Committee (IAC)** organized seven symposia in San Francisco; convened four soft-skills training sessions for Brazilian young scholars studying in the U.S.; conducted a networking event for Chinese chemists and allied practitioners, and initiated a 'soft launch' of the ACS International Chemical Sciences Chapter in South Korea. An International Chemical Sciences Chapter in South Africa was approved by Council.

- The **Project SEED Committee** awarded 28 Project SEED College Scholarships to 17 female and 11 male alumni from 16 states and Puerto Rico. The Committee also reviewed key issues that impact Project SEED including: project selection, college scholarship applications, and program geographic distribution. The Committee then proposed modifications to the current selection process for research projects, reviewed and approved changes to the Scholarship application, and established a Geographic Expansion Subcommittee. Ethics guidelines for Project SEED students are also being addressed.
- The **Public Relations and Communications Committee (CPRC)** announced that the Chemistry Ambassadors program is observing its fifth anniversary. There are currently more than 10,000 Ambassadors. At this meeting, CPRC launched "ChemChamps," an outreach effort, where members each give a 3-minute explanation of their research in a way that would engage non-scientists. This is a great follow up to the encouragement given by Alan Alda at an ACS Board meeting last year to go forth and make chemistry relevant to the public. CPRC's new mission statement is: "CPRC supports the ACS goal of improving public understanding and appreciation of chemistry's contributions to people's lives."
- The **Senior Chemist Committee (SCC)** has approved 22 mini-grants of \$300 each to encourage and support the organization of senior groups at Local Sections. The SCC newsletter now has the highest "open" rate of all newsletters published by the Society. The Committee co-organized a very successful day-long symposium, "Innovation in International Collaboration," with the Committee on International Activities and the Division of Professional

Relations. Divisions are being asked how they can better utilize their Senior Chemists especially in the areas of mentoring and public outreach programs. *Sounds like something **AGRO** could contribute to.*

- The **Committee on Technician Affairs (CTA)** observed its 50<sup>th</sup> Anniversary with the symposium, "The Role of the Chemical Technician through the Decades," cosponsored with the Division of Industrial and Engineering Chemistry and the Division of the History of Chemistry.
- The **Women Chemists Committee (WCC)** sponsored two full-day symposia, "Mom, the Chemistry Professor," and "Women Leaders of the Global Chemistry Enterprise."
- The **Younger Chemists Committee (YCC)** continues to identify new opportunities for leveraging their social media following (Twitter, Facebook, LinkedIn, etc). The Committee has developed partnerships with the ACS Office of Public Affairs to help promote the #ChemChamps program and the highly successful joint effort "Program in a Box" with ACS Webinars. YCC has secured funding for two "Program in a Box" events for 2015. All Divisions are asked to interact with the YCC, especially in new member recruitment and younger chemist programming opportunities. *Another opportunity for **AGRO!***

**Resolution:**

The Council passed several resolutions, including one commending outgoing **ACS Executive Director and CEO Madeleine Jacobs** on the occasion of her upcoming retirement. The ACS Board of Directors named **Thomas M. Connelly, Jr., Ph.D.** (former vice president and chief innovation officer at DuPont) the **next ACS Executive Director and CEO** effective February 17, 2015.

**BYLAWS\*\*\***  
OF THE  
**DIVISION OF AGROCHEMICALS**  
OF THE  
**AMERICAN CHEMICAL SOCIETY**

\*\*\* Proposed bylaws submitted August 2012.  
Effective TBD. Approved, as amended,  
by the Committee on Constitution and Bylaws,  
acting for the Council of the American Chemical Society.

**Bylaw I. Name and Objects**

**Section 1.** The name of this organization shall be the Division of Agrochemicals (hereinafter referred to as the "Division") of the AMERICAN CHEMICAL SOCIETY (hereinafter referred to as the "SOCIETY").

**Section 2.** The objects of the Division shall be to bring together persons particularly interested in agrochemicals, to consider all scientific aspects of chemistry relevant to the control of pests of agricultural or public health significance and to other methods for enhancing or modifying agricultural productivity, to develop and improve the professional stature of chemists with these interests, and to render whatever service it may to the scientific and lay communities on the topic of agrochemicals.

**Bylaw II. Members and Affiliates**

**Section 1.** Membership in the Division shall be open to all members of the SOCIETY. Application for membership shall be made in writing to the Secretary of the Division and shall be accompanied by one year's dues.

**Section 2.** A Society Affiliate of the SOCIETY may apply to the Secretary to become a Society Affiliate of the Division. Provided that Division dues established for Society Affiliates are paid, a Society Affiliate shall have all the privileges of membership in the Division except those of voting for or holding an elective position of the Division, voting on articles of incorporation or bylaws of the Division, or serving as a voting member of its Executive Committee.

**Section 3.** The Division may accept Division Affiliates who are not members or Society Affiliates of the SOCIETY but who wish to participate in the activities of the Division. Such affiliates shall be entitled to all the privileges of membership in the Division save those withheld by the Bylaws of the SOCIETY.

**Section 4.** Members may resign their membership in the Division by submitting their resignation, in writing, to the Secretary during the year for which their dues are paid.

**Section 5.** The name of any member of the Division who is in arrears in payment of dues by as much as one year shall be stricken from the rolls. A member dropped for nonpayment of dues may be reinstated upon payment of arrearages.

**Section 6.** Affiliates shall retain affiliate status only so long as payment is made of Division dues. An affiliate's name is to be stricken from the rolls as soon as the affiliate is in arrears in the payment of dues.

**Section 7.** The anniversary dates of Division members and National Affiliates of the Division shall coincide with their anniversary dates in the SOCIETY.

### **Bylaw III. Officers and Councilors**

**Section 1.** The officers of the Division shall be a Chair, a Chair-Elect, a Vice-Chair, a Secretary, and a Treasurer. The Chair-Elect shall automatically succeed to the office of Chair upon expiration of the latter's term of office or if this office becomes vacant. The Vice-Chair shall automatically succeed to the office of Chair-Elect upon expiration of the latter's term of office or if this office becomes vacant. The offices of Secretary and of Treasurer may be held by one individual. Only MEMBERS are eligible to hold elective positions.

**Section 2.** The duties of the Chair shall be to preside at meetings of the Executive Committee, to carry into effect the decisions and recommendations of the Committee, to preside at stated meetings of the Division, and to appoint all committees except as otherwise provided.

**Section 3.** The duties of the Chair-Elect shall be to serve in the absence of the Chair of the Division and to act as Chair of the Program Committee.

**Section 4.** The duties of the Vice-Chair shall be to serve in the absence of the Chair-Elect and to act as Assistant Chair of the Program Committee, with particular emphasis on planning and developing technical programs.

**Section 5.** The duties of the Secretary shall be to keep minutes of all meetings of the Division and of the Executive Committee; to keep a roll of Division members and affiliates and to submit the same annually to the Executive Director of the SOCIETY for verification as provided in the Bylaws of the SOCIETY; to conduct the business correspondence of the Division as assigned to the Secretary by the Chair or by the Executive Committee; to prepare and submit an annual report of Division activities to the SOCIETY as required in the SOCIETY's Bylaws; to perform such other duties as may, from time to time, be assigned by the Chair or Executive Committee or required by the SOCIETY's Bylaws.

**Section 6.** The Treasurer shall act as custodian of the funds of the Division, collect dues and other revenues, and pay the bills of the Division after the same have been authorized by the Executive Committee. The Treasurer shall maintain accurate records of receipts and disbursements and shall submit a report of the financial condition of the Division at the annual meeting of the Division. The Treasurer shall furnish a surety bond, the premium for which shall be paid from Division funds.

**Section 7.** Councilors and Alternate Councilors shall represent the Division on the Council of the SOCIETY as provided in the Constitution and Bylaws of the SOCIETY.

**Section 8.** The Division shall have an Executive Committee, which shall consist of the officers of the Division; the Immediate Past Chair of the Division; the Councilors and Alternate Councilors; the Chairs, Chairs-Elect, Vice-Chairs, and Immediate Past Chairs of Subdivisions, if any; and fifteen (15) Members-at-Large. The Chair of the Division shall serve as Chair of the Executive Committee.

**Section 9.** The officers of the Division other than the Chair and the Chair-Elect shall be elected by ballot as described elsewhere in these bylaws.

**Section 10.** At the annual meeting of the Division, the Executive Committee shall appoint a Nominating Committee consisting of at least three members, one of whom shall be the Immediate Past Chair of the Division, who shall serve as Chair of this Committee. This Committee shall nominate two candidates for the office of Vice-Chair and at least ten (10) candidates for the positions as Members-at-Large to be filled on the Executive Committee. This Committee shall nominate candidates for each of the following offices to be filled: Councilor, Alternate Councilor, Secretary, and Treasurer. This Committee shall submit a report in writing to the Chair of the Division for preparation of the ballot to be mailed to the membership. Additional nominations may be made in writing by any group of at least five members and presented to the Chair of the Division not less than three months prior to the fall meeting.

**Section 11.** Officers and Members-at-Large shall be elected by the members and Division Affiliates of the Division. Only members of the Division may vote for Councilors and Alternate Councilors. The Secretary or other designated officer of the Division shall prepare an election ballot, on which shall appear the names in order chosen by lot of all candidates nominated and found willing to serve. The form of the ballot and procedures for balloting will be in compliance with the overall procedures of the Society. The Tellers shall count the ballots thus received, using the list of members provided by the Secretary to verify the eligibility of all those voting. Any ballot envelope not validated by the voter's accompanying hand-inscribed name shall be rejected. The Secretary shall set and announce in advance of the balloting the interval during which ballots must be received to be counted; this interval shall not be less than four nor more than seven weeks following the ballot mailing. The Tellers Committee, appointed by the Chair of the Division, shall be responsible for counting all valid ballots received within the interval and shall certify the results to the Secretary, who shall in turn certify the results to the SOCIETY, the elected officials, and the Division. Elections are to be by plurality, should there be more than two candidates for an office. Resolution of a tie vote shall be made by the Executive Committee.

**Section 12.** The Chair, the Chair-Elect, the Vice-Chair, the Secretary, and the Treasurer of the Division shall serve for one year or until their successors are elected.

**Section 13.** The terms of office of the Members-at-Large of the Executive Committee shall be three years. Five Members-at-Large shall be elected each year.

**Section 14.** The terms of Councilors and Alternate Councilors and all officers excluding the Chair, Chair-Elect, and Vice-Chair shall begin on January 1 following their election. The terms for Chair, Chair-Elect, and Vice-Chair shall begin at the conclusion of the fall meeting of the SOCIETY.

**Section 15.** Vacancies in offices other than Chair and Chair-Elect shall be filled by the Executive Committee. Incumbents so selected shall serve until the next regular election.

### **Bylaw IV. Councilors**

The Division shall have Councilors and Alternate Councilors whose terms of office shall be three years. Alternate Councilors shall serve only for specific meetings of the Council when a Councilor is not able to attend.

### **Bylaw V. Committees**

**Section 1.** There shall be a Program Committee, consisting of three or more members, one of whom shall be the Chair-Elect of the Division, who shall serve as Chair of the Committee. A second member of the Committee shall be the Vice-Chair. The Program Committee shall have the entire responsibility for organizing the program of papers for all Division meetings. It shall work cooperatively with other Divisions of the SOCIETY and other bodies in planning joint sessions and symposia of mutual and timely interest.

**Section 2.** There shall be a Membership Committee of three or more members. This Committee shall aggressively promote membership in the Division by members of the SOCIETY.

**Section 3.** There shall be a Finance Committee of two or more members. This Committee shall audit the accounts of the Treasurer prior to the business meeting of the Division and report its findings at the annual meeting. This Committee shall advise the Executive Committee on financial resources.

**Section 4.** There shall be an Awards Committee of at least six members. This Committee shall maintain and develop the Division and International Awards Programs.

**Section 5.** There shall be a Social Committee of at least two members. This Committee shall direct social events in coordination with other committees and maintain a hospitality table at Division meetings.

**Section 6.** There shall be a Communications Committee of at least three members. This Committee shall be responsible for coordination of the communication and publication activities of the Division, (including newsletter, *PICOGRAM*, and other Division publications).

**Section 7.** Special committees may be appointed to consider, conduct, and report upon such special matters as may be delegated to them.

**Section 8.** Except where otherwise provided, committee appointments shall be made by the Chair, with the advice and approval of the Executive Committee.

#### **Bylaw VI. Dues**

**Section 1.** Members of the Division shall pay annual dues, the exact amount to be decided by the Executive Committee. Dues are payable in advance. Members who have been granted emeritus status by the SOCIETY and who are interested in the work of the Division shall be granted all privileges of Division membership without the payment of annual dues.

**Section 2.** Affiliates shall pay annual dues of \$2.00 more than members, except that Division Affiliates who are regularly matriculated students specializing in a chemical science shall pay annual dues of an amount to be decided by the Executive Committee.

#### **Bylaw VII. Subdivisions**

**Section 1.** Composition. The Division may sponsor Subdivisions devoted to specialized fields within the area of Division interest. Membership in the Division shall be a requirement for membership in a Subdivision.

**Section 2.** Formation. Formation or discontinuance of a Subdivision shall be at the discretion of the Executive Committee of the Division. Steps to initiate a Subdivision may be made by petition of a group of Division members to the Executive Committee or by the action of the Executive Committee. The scope of the activities of any Subdivision shall be defined by the Executive Committee.

**Section 3.** Officers. Upon approval of the formation of a Subdivision, the Executive Committee of the Division shall appoint a Chair, Chair-Elect, Vice-Chair, and Secretary for the Subdivision. The Chair-Elect shall assume the office of Chair after one year. In succeeding years the Subdivision shall elect at the annual meeting a Chair-Elect and a Secretary. The Chair, a Chair-Elect, and Secretary shall constitute a Steering Committee for the Subdivision. This Steering Committee shall report through the Chair of the Subdivision and be responsible to the Executive Committee of the Division, of which Subdivision Chairs shall be members *ex officio*.

**Section 4.** Funds. The necessary expenses for each Subdivision shall be authorized by the Executive Committee of the Division from

Division funds and shall be paid by the Treasurer of the Division upon the usual authentication.

#### **Bylaw VIII. Meetings**

**Section 1.** There shall be a meeting of the Division at each a national meeting of the SOCIETY at least once per year, unless the Executive Committee votes otherwise, provided the requirements for a minimum number of meetings as specified in the SOCIETY Bylaws shall be met.

**Section 2.** The annual meeting of the Division shall be held at one of the national meetings of the SOCIETY. The fall meeting of the SOCIETY will be designated as the annual meeting unless otherwise instructed by the Executive Committee. Division business requiring vote of the membership shall be conducted only at this meeting, except as provided elsewhere in these bylaws. or as directed by the Executive Committee.

**Section 3.** Special meetings of the Division may be called by the Executive Committee, provided notice is given to the membership in writing or by publication in *Chemical & Engineering News* at least two months in advance.

**Section 4.** Fifteen (15) members of the Division shall constitute a quorum for the conduct of business.

**Section 5.** The fee for registration at any special meeting shall be decided by the Executive Committee in accordance with the Bylaws of the SOCIETY.

**Section 6.** The rules of order in the conduct of Division meetings not specifically provided in these bylaws or in the SOCIETY's documents shall be the most recent edition of *Robert's Rules of Order, Newly Revised*.

#### **Bylaw IX. Papers**

**Section 1.** The Program Committee may approve or reject papers submitted for presentation before any meeting of the Division.

**Section 2.** The rules for papers presented before meetings of the SOCIETY as outlined in the Bylaws and Regulations of the SOCIETY shall govern the Division.

#### **Bylaw X. Amendments**

**Section 1.** These bylaws may be amended at any annual meeting of the Division by a two-thirds (2/3) vote of the members present. All amendments shall be submitted in writing to the Secretary at least sixty (60) days prior to the meeting. Upon approval of the Executive Committee, the Secretary shall send the text of the proposed amendment to the members of the Division at least thirty (30) days prior to the annual meeting.

**Section 2.** Amendments shall become effective upon approval by the Committee on Constitution and Bylaws, acting for the Council, unless a later date is specified.

#### **Bylaw XI. Dissolution**

Upon dissolution of the Division, any assets of the Division remaining thereafter shall be conveyed to such organization then existent as is dedicated to objects similar to those of the Division and the AMERICAN CHEMICAL SOCIETY, or to the AMERICAN CHEMICAL SOCIETY, so long as whichever organization is selected by the governing body of the Division at the time of dissolution shall be exempt under Section 501(c)(3) of the Internal Revenue Code of 1954 as amended or under such successor provision of the Code as may be in effect at the time of the Division's dissolution.



**AGRO DIVISION**  
Chemistry *for and from* Agriculture  
[www.agrodiv.org](http://www.agrodiv.org)

## EMAIL NEWSLETTER

The AGRO publishes a monthly email newsletter designed to keep members informed about what is happening in our Division. Content will include calls for papers, announcements, awards opportunities, information on elections, career opportunities, new AGRO publications and other timely announcements. Previous issues can be found on the AGRO website.

If you are not currently receiving the newsletter, you can sign up on our webpage, [www.agrodiv.org](http://www.agrodiv.org), by clicking on the button that says "Subscribe to our Newsletter."

Members can submit items to be included by the last Tuesday of the month to:

Yelena Sapozhnikova, PhD  
USDA-ARS  
215-233-6655  
[yelena.sapozhnikova@ars.usda.gov](mailto:yelena.sapozhnikova@ars.usda.gov)

### ***You may unsubscribe at any time.***

Each issue has an opt-out link where members can remove their email address from the list.

The AGRO email newsletter is open to all professionals who have an interest in agrochemicals and the AGRO Division. You do not have to be a division member to subscribe.

Companies who are interested in advertising in our email newsletter should send an email to Laura McConnell at [laura.mcconnell@bayer.com](mailto:laura.mcconnell@bayer.com).

The cost is \$50 per ad which includes a 120x120 pixel image with a weblink and subtitle if desired.

## SUPPORT YOUR DIVISION!

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The *PICOGRAM* is published twice a year and is an important communications instrument of AGRO. It is mailed to nearly 1200 division members in the Spring and distributed to meeting attendees and mailed to members not attending in the Fall (~ 1500 distributed).

#### Ad costs

Full Page	16.5 cm x 22.9 cm 6.5" x 9"	\$500
Half Page	16.5 cm x 11.4 cm 6.5" x 4.5"	\$250

Full page ads must be submitted as press quality resolution, pdf format. Print bleed is desirable. If a color version is submitted for the on-line issue, this should not include print bleed. Half-page ads cannot be submitted as pdfs. Tiff or jpg at press quality resolution from professional graphics artist is preferred. Microsoft Office files in Word, Powerpoint, or Publisher may be submitted, but all images in the file must be high resolution grayscale.

#### **Deadlines:**

**Spring Edition - December 1**  
**Fall Edition - June 1**

Submit ad copy via email to:

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Bayer CropScience  
919-549-2012  
[laura.mcconnell@bayer.com](mailto:laura.mcconnell@bayer.com)

Previous issues may be viewed on the AGRO website.

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*and Abstracts*



CHEMISTRY  
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Cathleen J. Hapeman, Editor  
USDA-ARS

10300 Baltimore Avenue  
B-001, Rm 221, BARC-West  
Beltsville, Maryland 20705

301-504-6451

[cathleen.hapeman@ars.usda.gov](mailto:cathleen.hapeman@ars.usda.gov)  
[www.agrodiv.org](http://www.agrodiv.org)

