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CHEMISTRY  
*for and from*  
AGRICULTURE



# PICOGRAM V. 91

**AMERICAN CHEMICAL SOCIETY**  
Call for Papers for Washington DC



# 2016 – 2017 AGRO DIVISION PATRONS

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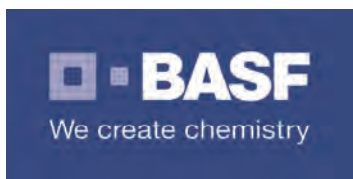
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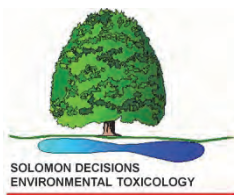


MONSANTO



JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY

Gold



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## From the Chair's Desk

Jay Gan

**Reflections on AGRO Meeting in Philly.** As I pulled my small black suitcase behind me through the Loews Hotel lobby early Thursday afternoon, I could not help but let out a huge sigh – Hey, my job is done!

Programming for AGRO sessions at the 2016 ACS Fall Meeting in Philadelphia was undoubtedly the largest event that I had to coordinate in my life up to that point. I could not have done it without the team that I came to work closely with and to lean on. I especially want to take this opportunity to thank two phenomenal individuals who did so much for the meeting – Cathleen Hapeman and Peney Patton.

Cathleen almost single-handedly threaded together the grid of sessions spanning the full five days, which is no small feat considering the need for even programming, addressing individual presenters' special requests, accommodating awards and special events, and avoiding presenters' time conflicts. Cathleen also led the effort for putting together the final program in *PICOGRAM* – we can only imagine how much time that she spent to ensure that every little detail was covered and all the information was updated to the last minute!

AGRO is so lucky to have Peney for her service! I have probably exchanged hundreds of emails with her over the course of the year. I was extremely impressed with Peney's note-keeping habits, her flawless memory, and her capability to work seamlessly between AGRO and ACS. Peney took care of food function and space for non-technical events and processed complimentary registrations and travel support for many speakers. Peney provided the crucial continuity for AGRO, and her intimate knowledge of ACS offices and rules made things so much smoother!

I would also like to thank Pam Rice for her guidance along the way. Without Pam's clear and well-organized notes and timely reminders, I would frequently be at a loss. Many thanks also go to our symposium organizers and session chairs, including the first-timers and early career organizers, for putting together a strong scientific program – your energy and leadership were felt throughout the meeting!

Appreciation is also due to our generous industry sponsors – your support has certainly made AGRO activities much more flavorful and enjoyable!

Last but not least, a big "Thank You!" to all who participated in the meeting and contributed in many different ways! AGRO is truly like a big family. As we grow in it, it also grows on us!

**Future National Meetings.** Scott Jackson has put together an excellent selection of timely symposia for Washington DC. We will have several award symposia and will pay tribute to Bob Krieger and Richard Allen. Check out the Call for Papers which begins on page 26. Visit our website ([www.agrodiv.org](http://www.agrodiv.org)) to see the most up-to-date list of symposia. **Please note: Abstracts must be submitted by March 22, 2017.**

In 2018, we return to Boston, and our current Vice Chair, Julie Eble, will lead the programming. It is never too early to begin developing program ideas for future meetings. Contact Julie if you would like assistance in developing a symposium. Also, watch for announcements on our program-brainstorming social to be held during the DC meeting.

**Student Travel and New Investigator Awards.** Are you an undergraduate, grad student, post-doc, or early career scientist or a mentor to someone fitting this description? If so, I would like to highlight the special programs AGRO offers to financially support and recognize new investigators and students at the national meetings. Application forms and deadlines for the New Investigator Award and Education Award for Student Travel can be found under the Special Programs link on the website and on pages 19 and 21.

**AGRO's New Strategic Plan.** On October 22-23, 2016, ACS facilitated a Strategic Planning Retreat for AGRO in Washington DC which was organized by Ashli Brown Johnson and Julie Eble. We revised our vision and mission statements and spend considerable time exploring strategy approaches, discussing coordination and prioritization of preliminary project plans, and considering many opportunities for members to be more engaged and involved. Many thanks to Ashli and Julie for putting all this together and to all who volunteered to spend this weekend developing this ambitious plan. The Executive Committee has approved this plan and the new vision and mission statements (p. 79). A brief summary of the meeting can be found on the following pages.

**Staying Informed.** Check out what AGRO has to offer at our website at [www.agrodiv.org](http://www.agrodiv.org) for the most up-to-date information on AGRO's activities and list of sponsors. View our Lunch and Learn Webinar Series, access archives of our eNewsletter and *PICOGRAM*, learn about membership, award opportunities, and more. Also, are you receiving the AGRO eNewsletter? You can get the latest information, but you do need to open the emails and read them. 😊

*See you all at our next big reunion in Washington DC!*



## STRATEGIC PLANNING RETREAT ACS AGRO DIVISION October 22 – 23, 2016



*Strategic Planning Participants – front row: Carol Duane (ACS headquarters), Peney Patton, Kalumbu Malekani, Ashli Brown Johnson, Julie Eble, Larry Krannich (ACS headquarters); back row: Wayne Jones (ACS headquarters), Al Barefoot, Aaron Gross, Stephen Duke, Amy Ritter, Michelle Hladik, Ken Racke, Mike Krolski, Michael Barrett, John Clark, Steven Lehotay, Jay Gan, Leah Riter*

Sixteen AGRO leaders participated in the AGRO Strategic Planning Retreat at the ACS headquarters in Washington DC with Larry Krannich, Carol Duane, and facilitator-in-training, Wayne Jones. The work of this group built upon AGRO's early strategic plans and is outlined on the next page.

The participants and AGRO officers and Executive Committee encourage every AGRO member to review the goals and strategies to meet these goals. ***If you have ideas, please contact any of the participants.***

One reflection as the workshop closed was that ideas for moving AGRO forward are consistent across workshops. However, communication and implementation from year to year needs improvement. Therefore, the group plans to communicate more at the 2017 national meeting in Washington DC and will work towards better mentoring and execution.

# AGRO Strategic Plan

## AGRO Vision Statement

Fostering sustainable agriculture and protecting public health through chemistry

## AGRO Mission Statement

Bringing together a worldwide community of scientists and stakeholders to advance knowledge and promote innovative solutions for the protection of agricultural productivity, public health, and environment.

### **GOAL 1: Increase AGRO's outreach to scientific and public communities.**

*Impact: High; Resources: Med-high*

1-1. Design an outreach/partnership committee by Q1 2017 to develop liaisons with other scientific divisions in ACS and other scientific societies/organizations.

*Impact, H; Resources, L*

*Champions: Steve Duke, Al Barefoot*

1-2. Establish relationships with other organizations within one year leading to nine symposia in the next three years including two other organizations in the US, three international, and four with other ACS divisions. Coordinate with G3S3.

*Impact, H; Resources, H*

*Champions: Al Barefoot, Ken Racke, Jay Gan*

1-3. Extend public awareness of AGRO issues through four targeted press releases per year by working with the ACS press office and developed presentations for AGRO to share by August 2017.

*Impact, M; Resources, L*

*Champion: Michael Barrett*

### **GOAL 2: Attract and retain an increasingly diverse and engaged membership by creating tangible benefits and opportunities to advance the AGRO mission.**

*Impact: High; Resources: Medium*

2-1. Clearly define and communicate membership and participation benefits via creating an AGRO poster, presentation, and advertisement by August 2017.

*Impact, H; Resources, M*

*Champions: Leah Riter, Steve Lehotay*

2-2 Conduct an on-line membership engagement survey and create a feedback mechanism on the website to enable a volunteer coordinator to link people with opportunities by August 2017.

*Impact, H; Resources, M*

*Champions: Ashli Brown Johnson, Leah Riter*

2-3 The membership committee will create an incentive and recognition program and communication strategy to promote engagement by new and current AGRO volunteers by August 2018.

*Impact, H; Resources, M*

*Champions: Steve Lehotay, Ashli Brown Johnson, Michelle Hladik*

### **GOAL 3: Provide strategic, multi-year programming that advances the AGRO mission.**

*Impact: High; Resources: Med-high*

3-1. Design and launch a program committee by the end of Q2 2017 to implement a plan for the 2018 national meeting that develops a multiyear programming approach that maintains the AGRO division culture and includes webinars and electronic options for both national and regional meetings.

*Impact, H; Resources, L*

*Champions: Julie Eble, John Clark, Jay Gan*

3-2. Update symposia topic list to evaluate past programming performance in order to aid program design committee in planning future meetings by the end of March 2017.

*Impact, M; Resources, L*

*Champions: Peney Patton, Mike Krolski*

3-3. By end of 2017, partner with two other organizations, divisions, or societies to bring in Hot Topics and educational (e.g., workshops, short courses) programming to increase membership (additional cosponsors in future years). Coordinate with G1S2.

*Impact, H; Resources, variable*

*Champions: Aaron Gross, Amy Ritter, Kalumbu Malekani*



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## AGRO DIVISION FELLOWS

1971	Louis Lykken Tom H. (Bucky) Harris Herman Beckman (Posthumous)	1980	G. Wayne Ivie John B. Siddall (Posthumous)	2000	Barry Cross
1972	Wendell F. (Bud) Phillips Don G. Crosby Elvins Y. Spencer	1981	Robert M. Hollingsworth Gino J. Marco	2001	Robert Hoagland
1973	Mr. Roger C. Blinn Philip C. Kearney Julius J. Menn	1983	John Harvey, Jr.	2003	Judd O. Nelson
1974	Morton Beroza James P. Minyard, Jr. Joe C. Street	1985	Henry Dishburger Richard C. Honeycutt	2005	Rodney Bennett
1975	Hank F. Enos Maurice B. Green Charles H. Van Middlelem	1986	Gunter (Jack) Zweig	2006	Terry D. Spittler
1976	Marguerite L. Leng Jack R. Plimmer Gerald G. Still	1987	Willa Garner	2007	John M. Clark Ann T. Lemley R. Donald Wauchope
1977	Gustave K. (Bob) Kohn	1988	Jan Chambers James Seiber	2008	Allan S. Felsot
1978	S. Kris Bandal Paul Hedin	1990	Joseph Fenyes	2011	Laura L. McConnell
1979	Rodney D. Moss	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	2016	Kevin J. Armbrust Del A. Koch Sharon K. Papiernik Pamela J. Rice
		1996	John Bourke		
		1998	Hank Cutler Paul Giesler		

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## ACS FELLOWS FROM THE AGRO DIVISION

2009	Glenn Fuller	2012	Jeanette M. Van Emon	2015	Rodney Bennett
2010	James N. Seiber	2014	Kevin Hicks		John Johnston
2011	John W. Finley N. Bushan Mandava		Laura L. McConnell Kenneth D. Racke	2016	Aldos C. Barefoot

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# AWARDS COMMITTEE REPORT

**Jeffrey Bloomquist** of the University of Florida is the recipient of the 2017 ACS International Award for Research in Agrochemicals. He receives this award for his research and exceptional accomplishments in the field of insecticide toxicology and resistance. This award will be presented in a symposium organized by John Marshall Clark at the Fall ACS meeting in Washington DC. Nominations for the 2018 ACS International Award for Research and the 2017 AGRO Award for Innovation in Chemistry of Agriculture sponsored by BASF are currently being evaluated by the Awards Committee. The nomination criteria for these awards can be found on pages 9 and 11.

**John Pickett** of Rothamsted Research will present the USDA-ARS Sterling Hendricks Memorial Lectureship in a lunch time symposium organized by Steve Duke and Kim Kaplan. **Bruce German** of University of California, Davis, will receive the Kenneth A. Spencer Award, and Eckhard Hellmuth will lead the organization of the symposium which will be hosted by AGFD. Nominations for the 2018 awards are now being accepted (pp. 13 and 15).

The Awards Committee is accepting new award nominations for the AGRO Division Fellow Award (see below). AGRO nominations for the ACS Fellow must be submitted through the Division Chair. The deadlines each year are March 31 for the AGRO Fellow Award and April 1 for the ACS Fellow Award.

The AGRO and AGFD Divisions with the *Journal of Agricultural and Food Chemistry (JAFC)* will sponsor two lectureships for outstanding papers published in *JAFC*. This year's winners for papers published in 2016 will be announced in early spring, both of whom will present lectures at the ACS National Meeting in

Washington DC. The call for nominations of papers published in 2017 will be solicited from AGRO and AGFD members and from the public through the *JAFC* website beginning in late Fall 2017 (p. 17).

The 2016 winner of the AGRO New Investigator Award was **Aaron Gross** of the University of Florida whose research concerns identifying new insecticide targets and developing biorational chemical pesticides that have a reduced impact on non-target organisms and the environment. This award, sponsored by Dow AgroScience, is presented to scientists who have obtained a doctoral degree within the past five years and are actively conducting academic, industrial, consulting, or regulatory studies of interest to AGRO. Applications for the 2017 New Investigator Award are currently underway (p. 19).

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. The 2016 first, second, and third place winners were **Edmund Norris** (Iowa State University, Joel Coats), **Scott O'Neal** (Virginia Tech, Troy Anderson), and **Nita Gabriela Chavez Soria** (University of Buffalo, Diana Aga), respectively. Applications for the Student Travel Awards are now being accepted (p. 21).

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*. The 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

## PAST AWARDEES OF THE BURDICK & JACKSON INTERNATIONAL AWARD

1969	John E. Casida, University of California-Berkeley	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, England	1983	Karl Heinz Buechel, Bayer AG, Leverkusen, Germany
1973	Hubert Martin, British Crop Protection Council, London, 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, Harpenden, England	1986	James Tumlinson, USDA-ARS, Gainesville, Florida
1976	Morton Beroza, USDA-ARS (retired), Beltsville, Maryland	1987	Fumio Matsumura, Michigan State University, East 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, California	1989	Toshio Narahashi, Northwestern University, Evanston, Illinois
1979	Milton S. Schechter, USDA-ARS (retired), Beltsville, 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
1993	Morifuso Eto, Kyushu University, Fukoka, Japan		Hideo Ohkawa, Kobe University, Japan
1994	Toshio Fujita, Kyoto University, Japan	2004	Stephen Duke, USDA-ARS, Oxford, Mississippi
1995	Mohyee Eldefrawi, University of Maryland-Baltimore		John Marshall Clark, University of Massachusetts-Amherst
	Koji Nakanishi, Columbia University, New York, New York	2005	Robert Krieger, University of California-Riverside
1996	Günther Voss, Ciba, Basel, Switzerland		Janice E. Chambers, Mississippi State University, Starkville
	Klaus Naumann, Bayer AG, Leverkusen, Germany	2006	Joel Coats, Iowa State University, Ames
1997	Fritz Führ, Institute of Chemistry and Dynamic, Jülich, Germany		Isamu Yamaguchi, Agricultural Chemicals Inspection Station, Tokyo, Japan
	Izuru Yamamoto, University of Tokyo, Japan	2007	Gerald T. Brooks, University of Sussex (retired), Brighton, United Kingdom
1998	George Levitt, DuPont, Wilmington, Delaware		Fredrick J. Perlak, Monsanto, St. Louis, Missouri
	Leslie Crombie, University of Nottingham, England	2008	David M. Soderlund, Cornell University, Ithaca, New York
1999	Don Baker, Zeneca, Richmond, California	2009	R. Donald Wauchope, USDA-ARS (retired), Tifton, Georgia
	James Seiber, University of Nevada-Reno	2010	Shinzo Kagabu, Gifu University, Gifu, Japan
2000	George P. Georghiou, University of California-Riverside	2011	George P. Lahm, DuPont Crop Science, Newark, Delaware
	Herbert B. Scher, Zeneca, Richmond, California		
2001	Donald Crosby, University of California-Davis		
	Ralph Mumma, Pennsylvania State University, University Park		
2002	Keith Solomon, University of Guelph, Canada		
	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, Indiana	2015	Keith D. Wing, formerly of Rohm and Haas and DuPont Crop Protection, Wilmington, Delaware
2013	René Feyereisen, National Institute of Agronomic Research (INRA), France	2016	Yoshihisa Ozoe, Shimane University, Japan
2014	Ralf Nauen, Bayer CropScience, Monheim, Germany	2017	Jeffrey Bloomquist, University of Florida, Gainesville



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

## 2019 Fall ACS National Meeting in San Diego, California

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 2019 Fall National ACS Meeting in honor of the awardee.

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





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**CALL FOR NOMINATIONS**  
**AGRO AWARD FOR INNOVATION IN**  
**CHEMISTRY OF AGRICULTURE**  
Sponsored by BASF Corporation

## 2018 Fall ACS National Meeting in Boston, Massachusetts

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 the 256th National ACS Meeting in August 2018 in Boston, Massachusetts.

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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     |
| 2015 | Thomas C. Sparks, Dow AgroSciences, Indianapolis, Indiana                     |
| 2016 | Thomas M. Stevenson, DuPont Crop Protection, Newark, Delaware                 |



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Department of  
Agriculture

Agricultural  
Research  
Service



## CALL FOR NOMINATIONS

### 2018 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 2018 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, 2017**.

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 256th American Chemical Society National Meeting held in 2018 in Boston, Massachusetts, 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*

Nomination letters should be sent electronically with the subject "Sterling Hendricks Award Nomination" to:

kim.kaplan@ars.usda.gov

If submitting a hard copy nomination, use overnight courier.

Kim Kaplan, Lecture Coordinator

ARS Office of Communications

5601 Sunnyside Ave, Rm. 1-2253, Mail Stop #5128

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 | 2000 | William S. Bowers, University of Arizona, Tuscon   |
| 1982 | Warren L. Butler, University of California-San Diego   | 2001 | Malcolm Thompson, USDA-ARS (retired), Beltsville, Maryland                               |
| 1983 | Melvin Calvin, Nobel Laureate, University of California-Berkeley   | 2002 | Irvin E. Liener, University of Minnesota, St. Paul                                       |
| 1984 | Frederick Ausubel, Harvard Medical School, Boston, Massachusetts   | 2003 | Kriton Kleantis Hatzios, Virginia Polytechnic Institute and State University, Blacksburg |
| 1985 | Alan Putnam, Michigan State University, East Lansing   | 2004 | Robert L. Buchanan, Food and Drug Administration, College Park, Maryland                 |
| 1986 | Ralph Hardy, Cornell University and BioTechnica International, Ithaca, New York                          | 2005 | Donald L. Sparks, University of Delaware, Newark   |
| 1987 | Mary-Dell Chilton, Ciba-Geigy Corporation, Research Triangle Park, North Carolina                        | 2006 | Stanley B. Prusiner, Nobel Laureate, University of California, San Francisco             |
| 1988 | Bruce N. Ames, University of California, Berkeley  | 2007 | Bruce E. Dale, Michigan State University, East Lansing                                   |
| 1989 | Sanford A. Miller, University of Texas Health Science Center at San Antonio, Texas                       | 2008 | Fergus M. Clydesdale, University of Massachusetts-Amherst                                |
| 1990 | Roy L. Whistle, Purdue University, West Lafayette, Indiana   | 2009 | Charles J. Arntzen, Arizona State University-Tempe                                       |
| 1991 | Peter S. Eagleson, Massachusetts Institute of Technology, Cambridge                                      | 2010 | Chris Somerville, Director of the Energy Biosciences Institute, Berkeley, California     |
| 1992 | John E. Casida, University of California-Berkeley  | 2011 | Deborah P. Delmer, University of California-Davis  |
| 1993 | Philip H. Abelson, Deputy Editor, <i>Science</i> , and Scientific Advisor to AAAS, Washington, DC        | 2012 | Eric Block, University at Albany, State University of New York                           |
| 1994 | Wendell L. Roelofs, Cornell University, Ithaca, New York   | 2013 | Keith Solomon, University of Guelph, Canada  |
| 1995 | Winslow R. Briggs, Carnegie Institution of Washington, Stanford, California                              | 2014 | Robert T. Fraley, Monsanto, Company, St. Louis, Missouri                                 |
| 1996 | Hugh D. Sisler, University of Maryland, College Park   | 2015 | James H. Tumlinson, Penn State, University Park  |
| 1997 | Ernest Hodgson, North Carolina State University, Raleigh   | 2016 | May R. Berenbaum, University of Illinois, Urbana-Champaign                               |
| 1998 | Morton Beroza, USDA-ARS (retired), Beltsville, Maryland  | 2017 | John A. Pickett, Rothamsted Research, United Kingdom                                     |
| 1999 | Bruce D. Hammock, University of California-Davis   |      |  |





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# CALL FOR NOMINATIONS

## 2018 KENNETH A. SPENCER AWARD

### Sponsored by ACS KANSAS CITY SECTION

The Kansas City Section of the American Chemical Society is soliciting nominations for the 2018 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 \$6000. 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 here:  
<http://cas.umkc.edu/chemistry/kcacs/Spencer%20Award/SpencerAward.html>

Send nomination by November 15, 2017, 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	1987	Hector F. DeLuca, University of Wisconsin-Madison
1956	Conrad A. Elvehjem, University of Wisconsin	1988	Boyd L. O'Dell, University of Missouri-Columbia
1957	William C. Rose, University of Wisconsin	1989	Robert H. Burris, University of Wisconsin
1958	E.V. McCollum, Johns Hopkins University	1990	John E. Kinsella, University of California-Davis
1959	Karl Folkers, Merck, Sharpe & Dohme Res. Labs.	1991	George Levitt, DuPont Experimental Station
1960	C.H. Bailey, University of Minnesota	1992	Clarence A. Ryan, Jr., Washington State University
1961	H.L. Haller, USDA-Agricultural Research Service	1993	Bruce Hammock, University of California-Davis
1962	A.K. Balls, USDA-Agricultural Research Service	1994	William S. Bowers, University of Arizona
1963	C.C. King, Rockefeller Foundation	1995	Robert T. Fraley, Ceregen, A Unit of Monsanto Co.
1964	Daniel Swern, Temple University	1996	James N. BeMiller, Purdue University
1965	Aaron M. Altschul, USDA-Agricultural Research Service	1997	William M. Doane, USDA-Agricultural Research Service
1966	Robert L. Metcalf University of California-Riverside	1998	Mendel Friedman USDA-Agricultural Research Service
1967	Melville L. Wolfrom, The Ohio State University	1999	James A. Sikorski, Monsanto Co.
1968	Herbert E. Carter, University of Illinois	2000	Wendell L. Roelofs, Cornell University
1969	Edwin T. Mertz, Purdue University	2001	James Tumlinson USDA-Agricultural Research Service
1970	Lyle D. Goodhue, Phillips Petroleum Company	2002	Daniel W. Armstrong, Iowa State University
1971	William J. Darby, Vanderbilt University	2003	Eric Block, University at Albany, State Univ. New York
1972	Emil M. Mrak, University of California-Davis	2004	Steven D. Aust, Utah State University
1973	Esmond E. Snell, University of California-Berkeley	2005	Don R. Baker, Berkeley Discovery Inc.
1974	Roy L. Whistler, Purdue University	2006	Russell Molyneux, USDA-Agricultural Research Service
1975	Thomas H. Jukes, University of California-Berkeley	2007	David A. Schooley, University of Nevada-Reno
1976	E. Irvine Liener, University of Minnesota	2008	Ron G. Buttery, USDA-Agricultural Research Service
1977	N. Edward Tolbert, Michigan State University	2009	George P. Lahm, DuPont Crop Protection
1978	John E. Casida, University of California-Berkley	2010	Clive A. Henrick, Trece, Inc.
1979	Charles W. Gehrke, University of Missouri-Columbia	2011	Michael W. Pariza, University of Wisconsin-Madison
1980	George K. Davis, University of Florida-Gainesville	2012	James N. Seiber, University of California-Davis
1981	John Speziale, Monsanto Agricultural Products Co.	2013	Attila Pavlath, USDA-Agricultural Research Service, ret.
1982	Howard Bachrach, USDA-Agricultural Research Service	2014	Ronald Horst, USDA-Agricultural Research Service, ret.
1983	Peter Albersheim, University of Colorado	2015	Thomas Selby, DuPont Crop Protection
1984	Richard H. Hageman, University of Illinois	2016	Agnes Rimando, USDA-Agricultural Research Service
1985	Bruce N. Ames, University of California-Berkeley	2017	Bruce German, University of California, Davis
1986	John M. Brenner, Iowa State University		



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- ▶ Product support services: 5-Batch analyses, method development and validation, GLP characterizations

## **Our regulatory and scientific services at a glance:**

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- ▶ Environmental Fate
- ▶ Modelling, Exposure Assessment
- ▶ Ecotoxicology Risk Assessments, incl. Higher Tier Risk Assessments
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Business Development  
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Vice President Laboratory Services  
Tel. +1 610 558 3001 ext. 122  
pat.delisio@criticalpathservices.com

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# JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY

## CALL FOR NOMINATIONS 2018 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 2017 (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 2017 ACS National Meeting in Washington DC

### 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.

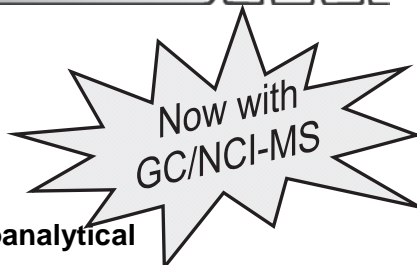
The winners will be announced in early 2018, and the award will be presented at the Fall 2018 ACS National Meeting held in August in Boston, Massachusetts.

Send your nominations to  
[jafcaward@acs.org](mailto:jafcaward@acs.org)

**Deadline for nominations**  
**December 31, 2017**



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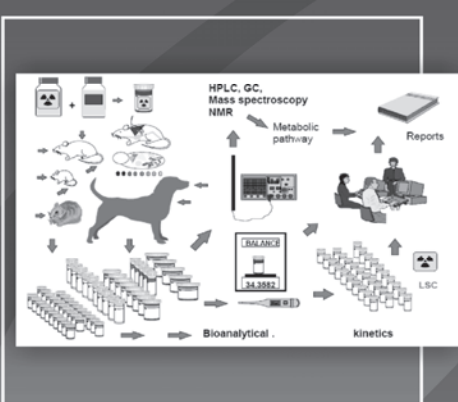
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# CALL FOR APPLICANTS AGRO DIVISION 2017 NEW INVESTIGATOR AWARD Sponsored by Dow AgroSciences

## 2017 Fall ACS National Meeting in Washington DC

The AGRO Division seeks nominations for the New Investigator Award (NIA) to be awarded at the ACS meeting in Washington DC in August 2017. 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, and 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 2017, applications will be considered from **scientists who have obtained their doctorates no earlier than the year 2012**.
- 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 22, 2017**.

### 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 System (<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 254th ACS National Meeting in Washington DC.

---

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



**Dow AgroSciences**

# AGRO Social and Award Presentations in Philly 2016



## Student Travel Award Recipients:

Nita Gabriela Chavez Soria, Zachary Cryder, Corey Griffith, Ping He, James Klimavicz, Nicholas Larson, Eryn Matich, Edmund Norris, Scott O'Neal, Anuj Ranjan, Adrian Romero, Akash Sadaria, Vamshi Krishna Reddy Sammeta, Emily N Vebrosky, Jennifer Williams, and Qi Yao



**New Investigator Award**  
Steve Lehotay presents the NIA to Aaron Gross

**Student Travel Award Winners**  
Scott O'Neal (2<sup>nd</sup>),  
Nita Gabriela Chavez Soria (3<sup>rd</sup>),  
Edmund Norris (1<sup>st</sup>)



**Student Oral Presentations**  
Alison Franklin, Shiyao Jiang,  
Rachel Mullen, Jaben Richards,  
and Parichehr Saranjampour



# CALL FOR APPLICANTS

## AGRO DIVISION 2017 EDUCATION AWARDS

Sponsored by Bayer CropScience

### UNDERGRADUATE & GRADUATE STUDENT RESEARCH

Travel Support for Student Posters and Senior Grad Student Oral Presentations

## 2017 Fall ACS National Meeting in Washington DC

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

Applications are sought for the 2017 Travel Awards. Selected undergraduate and graduate students will be awarded up to \$600 each to help defray costs of attendance to give a poster or an oral presentation at the 254th ACS Fall National Meeting, which will be held in August 2017 in Washington DC. Students should submit their abstracts in the symposium of their choice. First, Second, and Third place winners in the poster competition 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.

Graduate students who have previously attended scientific meetings AND are in or nearing their last year of graduate school are encouraged to do an oral presentation instead of a poster. AGRO members will be available to provide constructive critiques. **PLEASE NOTE: You must contact** the organizers to determine if you are eligible to do an oral presentation **before** submitting your abstract.

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

Marja Koivunen  
AMVAC Chemical Corporation  
Davis, California  
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

**To apply, students should submit the following no later than March 22, 2017:**

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.

**After completing step #1 above**, forward the ACS email indicating the abstract number and stating that abstract was successfully submitted to:

*posters@agrodiv.org*

**Only abstracts submitted to symposia organized by the AGRO Division will be eligible for the travel awards.**

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 that verifies current enrollment of the student.

SUBMIT items 2 and 3 and a copy of the ACS email as a **SINGLE pdf file to our posters email address** below with the abstract number in the email subject line.

*posters@agrodiv.org*

**NOTE: Files sent directly to the coordinators will not be accepted.**

*Abstracts will be reviewed by the Education Committee.  
Applicants will be notified of their selection status in May 2017.*

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







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**AGRO Symposia of Interest at the  
253rd ACS National Meeting  
Division of Environmental Chemistry  
San Francisco, California, April 2 – 6, 2017  
*Advanced Materials, Technologies, Systems, and Processes***

**Contaminants in Urban and Coastal  
Estuarine Ecosystems**

Organizers: Kevin Armbrust, George Cobb, Parichehr Saranjampour

Coastal and estuarine waterways are the ultimate terminus for chemicals transported in rivers, stormwater runoff, and treated wastewater effluents. Potential sources of these anthropogenic chemicals include uses in agriculture, pharmaceuticals, industrial, urban and suburban settings, as well as those present in regulated discharges and recycled water. While legacy chemicals are commonly detected in monitoring programs, of special interest are those that are not routinely measured and are of emerging concern. This symposium intends to explore the sources, occurrence, fate and impact of chemical contaminants in coastal marine and estuarine ecosystems as well as processes unique to marine systems that impact chemical fate and toxicity.

**Contaminants of Emerging Concern in  
Natural and Engineered Systems**

Organizers: Lee Blaney, Arturo Hernandez

The landmark paper by Kolpin, et al. (ES&T 36(6), 2002) describing the presence of pharmaceuticals, hormones, and other contaminants of emerging concern (CECs) in US streams was published fifteen years ago. Since that time, a large body of literature has focused on elucidating the occurrence, fate, transport, and toxicity of CECs in environmental compartments (e.g., water, sediment, biota) and water, wastewater, and water reuse treatment systems. These CECs include pharmaceuticals, personal care products, endocrine disrupting chemicals, pesticides, and flame retardants, among others. LC-MS/MS techniques are most often employed for quantitation of CECs; however, development of novel, selective analytical techniques are important to extend the availability of CEC measurement to small water systems and other resource-limited stakeholders. While the removal of CECs in water, wastewater, and water reuse scenarios is of most interest, the fate and transport of CECs in downstream (i.e., water distribution) and upstream (i.e., wastewater collection) systems are highly relevant. Due to the potential formation of biologically-active transformation products and metabolites, efforts to identify products and characterize their toxicity are paramount. Finally, we welcome talks that discuss prioritization of CECs through ecological and human health risk assessment. We invite oral and poster presentations from academia, government, and industry.

**Pesticides in Surface Water:  
Monitoring, Modeling, Mitigation, Risk  
Assessment and Regulation**

Organizers: Jianying Gan, Kean Goh, Yuzhou Luo, Dirk Young

As analytical instrumentation has advanced to detect pesticides in surface water and sediment at ever lower levels, and as more relevant and sensitive aquatic macroinvertebrates are included for testing, the scientific communities and regulatory agencies are challenged to interpret the monitoring and toxicity data and to promulgate practicable actions to protect surface water quality. These challenges can be met with a holistic surface water protection program which may include the following components: setting criteria to screen pesticides that may cause adverse impact to the aquatic environment, monitoring to evaluate status of emerging pesticides of concern, assessing the environmental risk, and mitigating pesticide offsite transport. To assist in this effort, statistical and modeling tools are important assets for assessing environmental risk, designing monitoring programs, predicting environmental concentrations, configuring best management practices, and evaluating success of surface water protection efforts. Presentations are invited from disciplines and organizations concerned with pesticides and surface water quality protection.

**Science and Perception of Climate Change**

Organizers: Sherine Obare, Elke Schoffers

Speakers will focus on global climate change aspects as they impact agriculture and water resources. Specific emphasis will be given toward the science and uncertainty in predictions and future consequences of the great lakes, storm patterns, and tools used for regional and global cities and populations. Such topics will be especially educational to chemists interested in engaging in climate science topics. At the end of the presentations, a panel discussion will be held to consider topics of current and future research interests with an emphasis on how chemists can continue to play a significant role in overcoming challenges associated with climate change.



**Call for Papers**  
**254<sup>th</sup> ACS National Meeting & Exposition**  
**August 20-24, 2017**  
**Washington DC, USA**

***Advances in Insecticide Mode of Action, Chemistry, and Resistance***

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

***Symposium Honoring Dr. Jeffrey Bloomquist***

Financially Sponsored by DuPont Crop Protection

**Purpose of Symposium**

This award symposium is being organized to honor Dr. Jeffrey Bloomquist of the University of Florida and the 2017 recipient of the ACS International Award for Research in Agrochemicals. Speakers of significant scientific achievement in the field of insecticide toxicology will be invited to present in the multisession symposium. Topics will cover a broad range in the area of insecticide toxicology and chemistry, with emphasis that will include mechanisms of resistance in mosquitoes and circumventing resistance with new chemistries. Information will be relevant to vector-borne disease which is of current pressing concern both in the US and internationally.

Poster contributions are also being sought in all areas of insecticide toxicology, chemistry, resistance, and mode of action.

Other potentially interested divisions include AGFD and TOXI.

**Suggested Topics**

- Insecticide mode of action
- Attractant and repellent mode of action
- New insecticidal chemistry
- Mechanisms of resistance to insecticides
- Monitoring extent and level of resistance

**For further information, contact the organizer**

John M. Clark, University of Massachusetts-Amherst, 413-545-1052, [jclark@vasci.umass.edu](mailto:jclark@vasci.umass.edu)

Submit abstracts of 300 words or less to  
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**January 23, 2017 – March 22, 2017**



**List of Symposia by Topic Area**  
**254th ACS National Meeting & Exposition**  
**August 20-24, 2017, Washington DC, USA**  
**Chemistry's Impact on the Global Economy**

*Each year, in addition to our traditional award/tribute symposia, the AGRO Division programs specific symposia in most, but not all, of our standing programming areas. Presentations for those standing program areas not included in listed symposia will be grouped in AGRO's general poster session.*

### **Awards and Tributes Symposia**

- Advances in Insecticide Mode of Action, Chemistry, and Resistance: ACS International Award for Research in Agrochemicals, Symposium Honoring Dr. Jeffrey Bloomquist (oral invitation only, posters contributed)
- Bob Krieger Memorial Symposium: A Life of Pesticide Research
- Richard Allen Memorial Symposium: A Passion for Pesticide Fate in the Environment
- Sterling Hendricks Memorial Lectureship Award: John Pickett
- Kenneth A. Spencer Award for Outstanding Achievement in Agricultural and Food Chemistry: Bruce German (AGFD host)

### **Special Topics**

- Communicating Pesticide Science to the Public

### **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**

- Advanced Techniques for Isolation and Identification of Ag/Pharma Metabolites from Biological Samples
- Advances in Residue Analytical Methods: Innovation, Current Status, and Future Prospects
- Emerging Mass Spectrometry Trends in Support of Agricultural Research and Development
- Good Laboratory Practices for the Agrochemical Professional
- Qualitative and Quantitative Endogenous Protein Detection
- Residue Analytical Method Transfer from Initial Method Development to End Use

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

- Advances in Insecticide Mode of Action, Chemistry, and Resistance: ACS International Award for Research in Agrochemicals, Symposium Honoring Dr. Jeffrey Bloomquist (oral invitation only, posters contributed)

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

- Atmospheric Fate and Transport of Pesticide Emissions

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

- Roles of Natural Products as Biorational Pesticides in Agriculture

#### **Discovery and Synthesis**

- Synthesis and Chemistry of Agrochemicals

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

- 2,4-D Human Exposure Data – Lessons from Decades of Study
- Application of Spatial Technologies to Advance Exposure Modeling and Risk Assessments
- Current Regulatory and Scientific Landscape of Mixture Toxicity and Risk Assessment
- Developing Pesticide Environmental Risk Assessment Approaches
- Higher Tier Lab/Field Approach on Risk Assessment Refinement
- How Can Chemistry Improve the Human Health Exposure and Risk Assessment of Chemicals?
- Pesticides, Pollinator Health, and Agricultural Sustainability
- Risk Assessment and Beyond: Innovative Approaches to Meet FIFRA and ESA Consultation Needs
- Species Habitat Determination and Chemical Exposure Routes and Timing
- Tiered Testing for Pollinator Protection: Experiences in Design, Implementation, and Interpretation

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

- Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Fate and Metabolism of Agrochemicals – Early Career Scientist Symposium
- Mechanistic Modeling and Effectiveness of Buffer Strips for Pesticide Regulatory Frameworks

### **Formulations and Application**

- Agrochemical Formulation Development

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

- Veterinary Drugs: Research, Residues, and Regulations
- Biorational Control of Medical and Veterinary Pests

### **Regulations, Harmonization, and MRLs**

- Analytical, Environmental, and Regulatory Challenges with Legalized Cannabis
- Anatomy of a Label: What's Chemistry Got To Do With It?
- Managing Pesticide Use and Use Data
- Pesticide Registration, Monitoring, and Enforcement: The Big Picture



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***2,4-D Human Exposure Data – Lessons from Decades of Study***

**Purpose of Symposium**

2,4-Dichlorophenoxyacetic acid is one of the most widely-used herbicides in the world, playing a key role for weed management in agriculture, range and pasture, forestry, urban settings, and aquatic environments. We now have 50 years of environmental data and 20 years of biomonitoring data on 2,4-D. This important data set provides a picture of human exposures to herbicides under a broad range of conditions and from a wide array of media. However, the available data are of varying internal quality and generalizability, and therefore, care must be taken in considering the utility of these studies for risk assessment purposes. It is important to examine carefully the wealth of available human exposure data for 2,4-D in order to explore such aspects as temporal changes in media analyzed, study quality, and populations assessed.

The symposium will focus on the strengths of the 2,4-D exposure data, the challenges associated with interpreting those data, and the importance of this kind of examination for understanding human exposures. This topic is consequential as these data may be used to support policy decisions and regulatory actions in the US and internationally.

This important and multi-disciplinary topic should be of interest to risk assessors, chemists, exposure scientists, epidemiologists, and regulators, as well as to the ENVR Division of ACS and other professional societies such as ISES, ISEE, and SRA.

**Suggested Topics**

- What do we know about 2,4-D exposures?
- How to judge the quality of exposure data for epidemiology and risk assessment
- Quality of published 2,4-D data over time
- Comparison of published 2,4-D data to national databases: lessons learned
- Uncertainties and variability in 2,4-D data: What is needed?
- Sources of exposure from biomonitoring studies
- Why quality matters now more than ever
- Use of exposure data in epidemiology
- Challenges associated with global products vs. different regional label systems

**For further information, contact the organizers**

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***Advanced Techniques for Isolation and Identification of  
Ag/Pharma Metabolites from Biological Samples***

**Purpose of Symposium**

The purpose of the symposium is to bring together international experts on isolation and identification of the metabolites of agricultural and pharmaceutical chemical products for scientific dialogue and knowledge exchange. Metabolism of agricultural and pharmaceutical products is a vital part of product registration and stewardship. The efforts undertaken to isolate and to identify these metabolites are complex, frustrating, and ever evolving.

Please join this symposium to provide your technical knowledge, experience, and/or regulatory insight on this exciting and challenging area of chemical research. Techniques to present include, but are not limited to, fraction collection, SPE/clean-up, mass spectrometry, NMR, TLC, SFC, 2D-HPLC, radioactive detection, and co-chromatography.

Regulators of agriculture and pharmaceutical chemical products are encouraged to attend as well to provide guidance on what they view as acceptable science for metabolite identification. The symposium is a cross ACS Division symposium due to the importance of analytical techniques for metabolite isolation and identification. Members of the Division of Analytical Chemistry are encouraged to submit papers on this topic.

**Suggested Topics**

- Isolation of chemicals/metabolites from complex matrices
- Tracking techniques for chemicals/metabolites through environments and organisms
- Identification of chemical/metabolites by various advanced liquid chromatography and mass spectrometry techniques
- Identification of chemicals/metabolites, particularly trace amounts, by nuclear magnetic resonance spectroscopy
- Perspectives and thoughts of regulators on metabolite levels requiring identification within environmental fate and metabolism studies
- Viewpoints and considerations of regulators on acceptable metabolite identification techniques
- Techniques for tracking and identification of chemicals/metabolites from environments and organisms without the use of a radioactive label

**For further information, contact the organizers**

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***Advances in Insecticide Mode of Action, Chemistry, and Resistance***

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

***Symposium Honoring Dr. Jeffrey Bloomquist***

Financially Sponsored by DuPont Crop Protection

**Purpose of Symposium**

This award symposium is being organized to honor Dr. Jeffrey Bloomquist of the University of Florida and the 2017 recipient of the ACS International Award for Research in Agrochemicals. Speakers of significant scientific achievement in the field of insecticide toxicology will be invited to present in the multisession symposium. Topics will cover a broad range in the area of insecticide toxicology and chemistry, with emphasis that will include mechanisms of resistance in mosquitoes and circumventing resistance with new chemistries. Information will be relevant to vector borne disease which is of current pressing concern both in the US and internationally.

Poster contributions are also being sought in all areas of insecticide toxicology, chemistry, resistance, and mode of action.

Other potentially interested divisions include AGFD and TOXI.

**Suggested Topics**

- Insecticide mode of action
- Attractant and repellent mode of action
- New insecticidal chemistry
- Mechanisms of resistance to insecticides
- Monitoring extent and level of resistance

**For further information, contact the organizer**

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***Advances in Residue Analytical Methods:  
Innovation, Current Status, and Future Prospects***

**Purpose of Symposium**

Development of analytical methods used in residue analysis is becoming more challenging as guidelines require more sensitive and selective methods with lower limits of quantitation. But, these methods must concomitantly meet the requirements of rapidly changing global safety assessments for both the consumer and the environment.

Thus, this symposium will focus on recent advances in analytical method development and innovative methods which meet these challenges of new global guideline requirements. This symposium will initiate a dialogue about approaches to developing 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.

This symposium will also encourage discussion and debate about different approaches to provide analytical data for global safety assessments. Other ACS divisions which may benefit from this symposium are ANYL, ENVR, and AGFD.

**Suggested Topics**

- Streamlining method development – application of new technologies
- Challenging analytical methods – successes and failures, i.e., problem-solving in unusual matrices or unique molecular properties of analytes
- Development of methods in complex matrices, e.g., bee matrices and body-fluid methods
- Development or implementation of method automation for routine analysis
- Utilization of new technology in residue analytical method, i.e., Selex Ion, Flow injection method and Dart MS/MS
- Multi-residue methods for residue analysis – advantages and limitation
- Extractability for residue methods

**For further information, contact the organizers**

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***Agricultural Atmospheric Emissions: Processes, Impacts, and Management***

**Purpose of Symposium**

Agricultural production can release a wide variety of potential pollutants to the atmosphere. For example, crop residue burning has been widely used to control insects, weeds, and other pests, or clear fields emitting volatile organic compounds (VOCs), particulate matter (PM), and nitrogen oxides (NOx). Animal production also releases VOCs, PM, methane, and ammonia. Emissions from crop production include pesticides, PM, and greenhouse gases.

These materials can undergo complex chemical and physical interactions with each other and with other species in the environment. They can also be transferred from one environmental compartment to another. All these processes can affect the fate and transport of agricultural emissions. However, quantifying these processes and impacts requires a multi-media, multi-pollutant, and multi-disciplinary approach. Effective management of these emissions requires an in-depth understanding of the complex processes and impacts, and collaboration among academia, industry, and government agencies in addition to the producers.

This symposium seeks to bring together people from different disciplines in academia, industry, and government agencies, and fosters future research linking interconnected areas. The linked research can help address a range of complex agricultural, environmental, and societal issues that are impacted by the management of agricultural systems. This symposium may be of interest to other ACS Divisions such as ENVR and AGFD.

**Suggested Topics**

- Emissions from agricultural activities, including animal and crop production
- Fate of agricultural emissions
- Exchange of agricultural emissions among different compartments
- Transformation of agricultural emissions
- Impacts of agricultural emissions on ecosystems
- Short and long range transport of agricultural emissions
- Management and mitigation of agricultural emissions
- Regulatory concerns

**For further information, contact the organizers**

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***Agrochemical Formulation Development***

**Purpose of Symposium**

Advances in the formulation science of crop protection and plant nutrition chemicals can provide improvements in bioefficacy, uptake, compatibility, and the physical stability of formulations. Formulators must utilize creative chemistry solutions to complement specific requirements for active ingredients, tank mixtures, local regulations, plant genetics, and geographical features. In addition, methods for evaluating formulation processing and stability are necessary to save time on R&D and to predict failure modes in real-world situations.

This symposium will highlight the approaches of the agrochemical industry to provide agrochemical formulation solutions that can be adopted worldwide and will be of high interest to both industry and academic scientists who research agrochemicals and their applications.

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 that we can design 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**

- Innovative surfactant and dispersant tools for formulations
- Green agrochemical formulations and biopesticides
- Synergies and challenges in multi-a.i. ag formulations
- Methods for evaluation of formulation stability
- Adjuvant technologies for efficient uptake/translocation
- Field studies of novel formulations
- RNAi-based formulation development and testing
- Particle size effects in ag formulations, including nanotechnology for ag formulations
- Regulatory issues for formulations, including environmental fate and metabolism
- Seed coating formulation development
- Formulations for plant nutrition enhancement

**For further information, contact the organizers**

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***Analytical, Environmental, and Regulatory Challenges  
with Legalized Cannabis***

**Purpose of Symposium**

The goal of this session is two-fold: (1) to initiate a discussion on the analytical, environmental, and regulatory challenges associated with agrochemicals in the legal cannabis industry; and (2) to address challenges associated with management operations in the face of conflicting state and federal laws.

Cannabis production and sale are legal in a limited number of states, but are still prohibited under federal law. The contrasting laws introduce additional challenges regarding the use and application of agrochemicals, cannabis production byproducts, water consumption, and waste discharges within the boundaries of the Clean Water Act (CWA), the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Federal Food, Drug and Cosmetic Act (FFDCA), and other federally legislated rules and regulations. The presenters in this session will share their thoughts and research on the following (and/or related) topics as they relate to the legal production of cannabis.

**Suggested Topics**

- Dissipation rates of pesticides on crops grown indoors, compared to outdoors
- Analytical methods for determining pesticides in cannabis
- Analytical considerations to assess cannabis product quality and consumer label compliance
- Metals and other contaminant/adulterant determinations in cannabis
- Policy related issues for pesticide use on cannabis
- Policy issues for use of cannabis production byproducts in food and animal feed
- State perspectives – medical and recreational use of cannabis and pesticides
- Potential federal policy needs in a future nationally legalized cannabis world
- Studies on hemp and pesticide use
- Hemp – research to support the re-establishment of industrial hemp production
- Water consumption in cannabis production and the Clean Water Act
- Waste and waste water discharges
- State and federal regulations that govern the use of agrochemicals, water use, and waste discharge

**For further information, contact the organizers**

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***Anatomy of a Label: What's Chemistry Got to Do with It?***

**Purpose of Symposium**

A key tool for regulating agrochemicals is the label that appears on the final plant protection product. This symposium aims to explain how the application of chemistry and good science can promote development of the labels of the future which support safe and effective product use.

This symposium will delve into the science and data that is needed to generate plant protection product labels and will cover: analytical science, chemical analysis, mammalian toxicology, ecotoxicology, environmental fate, crop residues, and more. Often, large amounts of data are distilled down to just a single key statement or single word. How are these data generated, analyzed, and categorized until finally appearing on product labels?

This symposium will also aim to answer: What is the impact of chemistry on label language? How can this influence the use of products? How do regulators make decisions that affect product labels, and how is this enforced?

This symposium will appeal to a wide, international audience of regulators, industry, academia, and CROs across many sectors. Other ACS Divisions that might be interested include ANYL and ENVR. The regulation of agrochemicals is a hot topic, and the venue of this meeting, i.e., Washington DC, which is the location of US EPA headquarters, makes it a perfect opportunity to focus on the regulation of agrochemical products via labels.

**Suggested Topics**

- Formulation science – how the product is chosen/formulated/key considerations and analytical tools
- Biology behind selecting which crops appear on labels
- Environmental fate and water monitoring
- Hazard categories, toxicity testing, and first aid statements
- How does human health and environmental risk assessment affect labels?
- EPA's Smart Label Project (electronic labels)
- How are labels currently categorized (e.g., Section 18, 24c, 2ee, etc.) and regulated?
- Label development "best practices"
- Developing practical, yet enforceable, labeling restrictions
- How can label restrictions protect our honeybees and other livestock?
- Product stewardship programs and the benefits they bring
- Labeling and endangered species protections, ESPP bulletins
- Challenges associated with global products vs. different regional label systems

**For further information, contact the organizers**

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***Application of Spatial Technologies to Advance  
Exposure Modeling and Risk Assessments***

**Purpose of Symposium**

With an increased availability of high-resolution spatial and temporal data and new technologies, the risk assessment of agricultural chemicals, such as pesticides, veterinary medicines, and nutrients, is becoming increasingly refined and more complex.

Although the availability of data and the quality of data increases, many challenges remain. For example, temporal changes across the landscape provide uncertainty in use patterns of chemicals and the distribution of species. Routing of chemicals in riverine systems provides ample challenges as stream flow information is often not readily available for key locations where problems may arise. The impact of the spatial and temporal variability of rainfall across the landscape remains a topic of discussion.

This symposium is aimed at modelers, risk assessors, land use managers, and scientists applying spatial technologies to refine approaches to exposure and risk assessment at the field, watershed, regional, and country level.

**Suggested Topics**

- Distributed modeling of agrochemicals across the landscape
- Routing of contaminants in surface waters
- Advancements and updates of spatial data
- Novel approaches of integrating models and landscape
- Mapping of areas vulnerable to agrochemicals
- Spatial-temporal aspects of modeling
- Spatial variability of rainfall
- Species habitat modeling and risk assessment
- Impact of buffers on exposure, risk, and agricultural economics

**For further information, contact the organizers**

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***Atmospheric Fate and Transport of Pesticide Emissions***

**Purpose of Symposium**

This symposium will facilitate the discussions among scientists in the agricultural and environmental related fields to examine:

- a) Emerging issues in environmental fate and exposure modeling and risk assessment of airborne emissions from semi-volatile and volatile agrochemicals;
- b) Emerging issues in environmental fate and exposure modeling and risk assessment of physical drift from pesticide spray applications and planting of treated seeds;
- c) Field- and lab-based drift and volatilization studies in risk assessments, e.g., endangered species, bystander, and operator;
- d) Study designs and methodologies for assessing risk of airborne pesticides.

The symposium will provide a platform for interactions between academia, industry, and regulatory experts from agricultural and environmental related disciplines. In addition, it will enhance the understanding of the environmental behavior of the ambient agricultural chemical emissions from various perspectives. This symposium is open for collaboration with other divisions such as ENVR and ANYL.

**Suggested Topics**

- Developments in higher-tiered environmental fate and exposure modeling
- New techniques in air residue analyses
- New techniques in assessing toxicity from airborne pesticides
- Advances in environmental exposure and risk assessment of agrochemicals
- Long-range transport of volatilized pesticide emissions
- Methodologies and techniques for determining set-back/buffer distances

**For further information, contact the organizers**

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***Biorational Control of Medical and Veterinary Pests***

**Purpose of Symposium**

With the recent encroachment of important disease pathogens vectored by a variety of arthropods, such as zika virus, dengue virus, and chikungunya virus, it is more important than ever to be continually looking toward the future of insect control techniques. As wild insect populations continue to become resistant to classical synthetic insecticides, novel chemistries and approaches need to be rapidly developed, characterized, and deployed. In order for these control techniques to be successful, subjects including insect pest biology, biochemistry, genetics, semiochemicals, and synthetic chemistry need to be explored.

This symposium will highlight some of the most prominent research currently exploring novel control techniques for medical and veterinary insects and ticks. The symposium will highlight the most important disease epidemics spread by insect disease vectors in our global society. Contributors will discuss the importance of characterizing biochemical targets and pest biology for the development of repellents, insecticides, and novel technologies aimed at controlling future vector populations.

**Suggested Topics**

- Current epidemics and the state of vector control
- Insect-host interactions and preventing the bite
- Overcoming insecticide resistance
- Novel control approaches
- Bringing new products to market

**For further information, contact the organizers**

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***Bob Krieger Memorial Symposium:  
A Life of Pesticide Research***

**Purpose of Symposium**

The purpose of this symposium is to honor the research of Robert (Bob) Krieger. Bob passed away on July 26, 2016. He led a long life in pesticide research beginning with his Ph.D. from Cornell University. From there, he held positions at University of California-Davis, Cal EPA, and University of California-Riverside, as well as many others. He received many distinguished awards for his research in toxicology, entomology, and agrochemicals.

Bob's pesticide research was diverse and included testing the fate and effects on chemicals in multiple organisms. Later, his focus was on pesticide exposure and risk assessment, studying methods for determination of exposure from surfaces and due to occupational exposure. He was also on the editorial board for several handbooks and journals.

Finally, he was an inspiring teacher and mentor to more than thirty graduate students, most of whom are active in ACS today. Bob's students, post-docs, and collaborators are especially encouraged to submit abstracts.

**Suggested Topics**

- Understanding pesticide metabolism using insect cytochrome P450 from insect microsomes
- Influences of gut enzymes on pesticides
- Biomonitoring and personal chemical exposure
- Transfer of pesticide residues from pet products
- Transfer and bioavailability of indoor pesticides
- Pesticide toxicology
- Risk assessments in the regulatory process

**For further information, contact the organizers**

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***Communicating Pesticide Science to the Public***

**Purpose of Symposium**

The symposium will focus on communicating pesticide science to non-scientific audiences, especially consumers who perceive there might be a risk of pesticide residues in their food. Pesticide science is complex, and risk communication is, at best, an emotionally charged topic. The typical consumer does not have the time or desire to understand all of the regulatory science behind the food they buy, but they expect the EPA to evaluate pesticides and to ensure that the public and the environment will not be harmed. EPA is spending more and more time conducting thorough assessments; communicating the benefits of pesticide use is beyond their charge. Who should be communicating the necessity of pesticides and promoting the benefits of pesticide use? Perhaps it falls upon the agrochemical industry to address the need for pesticides and to allay the public's concerns in a credible manner.

Pesticide registration is a highly-regulated, science-driven process involving experts from many disciplines within the private sector, government, and academia. Explaining and communicating the science of pesticide toxicity, exposure, and risk in response to negative public perception is a burdensome task, not just for pesticide manufacturers, but often for regulatory agencies such as EPA. If pesticides and GMO crops are the essential tools to combat pests and diseases, control weeds, and enhance crop yields, then much better communication of the benefits versus the risks is needed for the public. Experts from academia, governmental authorities, pesticide and food industries, and non-governmental organizations will be brought together to present and discuss their views and observations.

**Suggested Topics**

- Who are the stakeholders in pesticide communication, and what are their objectives?
- Who is best to translate science into common language?
- Why do farmers use pesticides? Can we grow crops without chemicals?
- What does risk/benefit mean?
- Are organic foods less risky for the consumer?
- What are the rules that US EPA follows when assessing pesticide risk?
- How do we protect the environment from pesticides and support agriculture at the same time?
- Do other regulatory agencies register pesticides the same way as EPA?
- What is the best way to determine if a pesticide will not harm the consumer and/or the environment?
- Where can the public obtain scientifically-valid, yet easy-to-understand information about pesticides?
- How do we simplify scientific jargon for effective communications to the public?
- Education and the world of pesticide science
- What should future communications to the public concerning pesticides look like?

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***Current Regulatory and Scientific Landscape of  
Mixture Toxicity and Risk Assessment***

**Purpose of Symposium**

Mixtures can elicit adverse responses of non-target species below the threshold effect concentrations of one or more of the individual components of the mixture. These potential combined effects, and identifying the best approaches to evaluating their potential impact, are an active research area, particularly in the agricultural sector. Various additivity models and types of mixtures exist and, assuming a one-size-fits-all approach, may under- or over-estimate potential effects.

During this symposium, research relating to various data assumptions, experimental designs, data quality evaluations, and additivity models, along with their use in evaluation of risk to non-target organisms, will be discussed. Other key topics of interest include addressing greater-than-additive effects in the context of risk assessment, assessing combined toxicity from tank mixtures, assessing metabolites, and cumulative risk, as well as other regulatory issues and concerns.

Scientific outcomes from this session will include recommendations to address key regulatory issues in the area of mixtures, criteria for evaluating mixture studies for risk assessment, and recommendations identifying the appropriate mixture models. This session should interest regulatory scientists, governmental regulators, statisticians, and academics.

**Suggested Topics**

- Novel approaches to evaluate combined effects of environmental mixtures
- Environmental assessment of tank mixtures
- Cumulative risk
- Current regulatory issues with mixture assessments
- Selection of additivity models in environmental risk assessment
- Criteria to evaluate mixture studies for risk assessment
- Environmental metabolites

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***Developing Pesticide Environmental Risk Assessment Approaches***

**Purpose of Symposium**

In the pesticide registration process, extensive data packages on environmental fate and ecotoxicology are required in many countries. However, in some countries and regions, there are often no specific requirements to conduct environmental risk assessments leading to efforts for developing environmental risk assessment frameworks for crop protection products.

In this symposium, we plan to bring together frameworks, approaches, and challenges in various components of such risk assessments, including pesticide exposure modeling, data generation, risk characterization, risk refinements, and mitigation. Presentations describing current status of risk assessments, approaches, cases studies, original research, and literature review which address these and related topics are encouraged. Scientists and regulators engaged in aspects of environmental risk assessment will benefit by active participation.

**Suggested Topics**

- Protection goals
- Effects assessments
- Exposure modeling and assessments
- Development of exposure scenarios
- Data generation, data sharing, and availability
- Risk assessment and characterization approaches and challenges
- Options for higher tier assessments and risk refinements
- Options for risk mitigation
- Scientific collaboration and exchange

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***Emerging Mass Spectrometry Trends in Support of  
Agricultural Research and Development***

**Purpose of Symposium**

Advances in instrumentation have been one of the most important drivers in the way we conduct agricultural research and development. Newer mass spectrometry instrumentation has provided better analyte selectivity, improved sensitivity, and higher sample throughput. Instruments incorporating accurate mass and high mass resolution capabilities will significantly impact how studies are performed. As instrument costs have decreased, these instruments are now more available to laboratories across industry, CROs, and academia. Laboratories are now incorporating accurate mass technology into all aspects of agricultural research and development, ranging from product discovery and development, product registration, and monitoring of food and environmental samples. This symposium will focus on many of these areas.

**Suggested Topics**

- Use of high resolution accurate mass (HRAM) instrumentation for metabolite identification
- Use of role of HRAM/accurate mass instrumentation for quantitative analyses
- HRAM-based quantitative/qualitative workflows for pesticide discovery
- Advanced software applications for metabolite identification and structural elucidation
- Agricultural research and development applications of ion mobility mass spectrometry
- The use of isotopic labeling of agrochemicals to assist in metabolite identification
- Applications of accurate mass instrumentation in multi-residue analyses
- Mass spectrometry for confirmation in animal drug residues
- Targeted and non-targeted pesticide analyses
- Applications of MS-imaging in agricultural research and development
- High throughput applications utilizing HRAM instrumentation.

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***Encountering Challenges in Analysis of Small Polar Metabolites***

**Purpose of Symposium**

Plant and animal metabolism studies on agrochemicals typically are conducted using <sup>14</sup>C. Current regulations require identifying metabolites at levels  $\geq 0.01$  mg/kg. It is quite common to have metabolism studies where the parent molecule metabolizes to very polar metabolites (small molecules with 3-5 carbons) that elute very close to the void volume. But these small polar metabolites contain oxidized functional moieties, often lack chromophores, and can be difficult to ionize in MS. Therefore, these metabolites need derivatization and significant purification prior to identification and characterization work.

The objective of this symposium is to discuss the general challenges and possible strategies to identify the small molecular mass, polar metabolites. This symposium will also be of interest to scientists in the ANYL and ENVR divisions.

**Suggested Topics**

- Analytical challenges in characterizing small polar metabolites
- Case studies on solving challenges in the analysis of polar metabolites
- LC/MS analysis of polar metabolites using derivatization (e.g., dansyl chloride) approach
- Alternatives to reverse phase analysis of very polar metabolites (e.g., HILIC, TLC)
- Novel isolation techniques, non-UV based detection methods for and identification/characterization of polar metabolites
- Applicability of accurate mass analyses
- Utilization of novel radiochemical detection technologies

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***Environmental Fate, Transport, and  
Modeling of Agriculturally-related 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 and risk assessments and will 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 reviews 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
- Conducting and interpreting of environmental monitoring
- Regulatory relevance of modeling, monitoring, and environmental fate measurements
- Use of modeling vs. monitoring
- Advances in modeling of the environment
- 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
- Spray and application technology as related to environmental fate

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***Fate and Metabolism of Agrochemicals***  
***Early Career Scientist Symposium***

**Purpose of Symposium**

The symposium will provide a platform for the close interactions between early career scientists who have been in the agricultural and environmental related fields for less than ten years. Subjects will include: a) innovative methods, tools and instrumentations that are applicable to investigating agrochemical behavior in the environment; b) advanced analytical techniques that can improve the accuracy or efficiency of analyzing agrochemicals in the environmental matrices; and c) emerging issues in environmental fate and exposure modeling and risk assessment of agrochemicals.

The symposium will enhance the profound understanding of the environmental behavior of the agricultural chemicals from various perspectives and is open for collaboration with other divisions such as ENVR and ANYL.

**Suggested Topics**

- Non-extractable residues (NER) in environmental fate and metabolism studies
- Advanced *in vivo* and *in vitro* tools for metabolite identification
- Developments in higher-tiered environmental fate and exposure modeling: soil, air, and water media
- New techniques in sample preparation for environmental residue and metabolism analyses
- Application of advanced analytical techniques in environmental fate and metabolism studies
- Advances in environmental exposure and risk assessment of agrochemicals

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***Good Laboratory Practices for the Agrochemical Professional***

**Purpose of Symposium**

Good Laboratory Practices (GLPs) are a set of quality principles that provide a framework within which laboratory and field studies are planned, performed, monitored, recorded, reported, and archived. GLPs help assure regulatory agencies that the data submitted are a true reflection of the results obtained during the study and can therefore be relied upon when making risk or safety assessments.

The purpose of this symposium is to provide guidance for ensuring the quality and integrity of data submitted to the regulatory agencies, specifically the US Environmental Protection Agency (EPA). Participants in this symposium will gain understanding of how GLPs impact the conduct of their studies, learn about common agency findings and how to avoid them, and get an overview of the current regulatory outlook of EPA GLPs.

The target audience includes anyone that works or is interested in working on studies that support applications for research or marketing permits for pesticide products regulated by the EPA, Quality Assurance/Quality Control professionals, and those new to the GLP environment. This symposium will be held in conjunction with the EPA-GLP Specialty Section of the Society of Quality Assurance (SQA). Other ACS Divisions that may be interested in attending this symposium include AGFD, ANYL, and ENVR.

**Suggested Topics**

- GLP training for a better understanding of 40 CFR Part 160 guidelines, roles, and responsibilities
- EPA GLP Inspection Program: interpretation, enforcement, and case studies
- Conduct of EPA agricultural field trials
- Effective management of multi-site studies
- Regulatory submissions of pesticide data in the US and worldwide
- Conduct of method validations and independent lab verifications
- Development of standard operating procedures to meet GLPs

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***Higher Tier Laboratory and Field Approaches to  
Refine Risk Assessment***

**Purpose of Symposium**

Tiered approaches are used by many regulators starting with Tier I risk assessment with limited information and conservative assumptions. The accuracy and realism often require specifically-designed, environmentally-specific approaches to provide more information on refining the assessment. The advanced approaches include non-guideline fate studies, specifically designed field studies, targeted monitoring, and historical monitoring data.

This symposium will provide an opportunity to discuss what advanced laboratory and field studies have been conducted and how these higher tier studies are used in refining exposure risk assessment.

**Suggested Topics**

- Specifically-designed lab fate studies to answer particular questions on degradation rates and pathways and provide more information for refined risk assessment
- Novel approaches to characterize environmental behaviors of plant protection products, e.g., adsorption/desorption behaviors and plant uptake factors
- Targeted or historical groundwater/surface water monitoring used for calibration/refinement of exposure models
- Advanced field testing to evaluate runoff potential, groundwater leachability, and/or off-target spray drift potential
- Other topics addressing higher tiered studies

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***How Can Chemistry Improve the Human Health Exposure  
and Risk Assessment of Chemicals?***

**Purpose of Symposium**

The human health risk assessment paradigm is changing. One important aspect of this change is the focus upon refining exposure assessments.

To date, the greater weight has generally been on hazard in the risk assessment process, with exposure being considered retrospectively. The result is the expenditure of considerable time, effort, and resource on acquiring hazard information that ultimately is not always required to reach conclusions on the safety of a chemical. As a result, scientists have been working to develop exposure and risk assessment methods to change this paradigm.

With analytical and modeling capabilities increasing, the technology now exists to support these changes. Learnings from all chemical sectors will be shared – agrochemical, pharmaceutical, industrial, and cosmetic/personal care.

This symposium will focus upon this key aspect of the risk assessment process, exposure, and it will emphasize how a better understanding of human exposure can refine chemical risk assessment. It will provide a forum for academic researchers, industry scientists, and regulators to present and discuss recent advances in the area of exposure assessment for chemicals.

**Suggested Topics**

- Innovations in dietary and non-dietary exposure assessment
- Exposure assessment approaches used by global regulatory agencies
- Risk21 Exposure Theory and case-studies
- Developing better biomonitoring databases
- Molecular simulations of exposure scenarios
- Ecological toxicokinetics and risk assessment
- Toxicokinetics and the use of systemic dose data
- Probabilistic exposure modeling
- Model development to assess human exposure
- Population exposure model development/status
- Use of human biomonitoring data
- Internal dosimetry for dose-response and exposure assessments
- Microsampling and improvements in analytical capabilities
- Physiologically based pharmacokinetic modeling
- Biomonitoring equivalents
- *In vitro*-to-*in vivo* extrapolation modeling to allow better the relationship between mode of action and exposure
- Exposure assessments in epidemiology

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***Managing Pesticide Use and Use Data***

**Purpose of Symposium**

Pesticides are accepted means of pest management because they are generally effective, economical, and easy to use; however, there are growing concerns about the negative environmental effects of pesticides. Since 1974, California enforces laws that require pesticide use reporting, and full pesticide use reporting began in 1990. As such, California has a very comprehensive pesticide use report (PUR) database that can be used to answer many questions and concerns.

This symposium is intended for industry professionals, academic researchers, and stakeholders from the agricultural community who seek a better understanding of how pesticide use data may be used in the areas of pest management, environmental impact assessment, and ecosystem and public health.

The symposium is designed to increase the understanding specifically on PUR data and its uses, as well as to examine analytical methodologies that have been used on PUR data. The goal of the symposium is to highlight current research by industry, government agencies, and academia to integrate pesticide use data with other available data in the public domain. The symposium will allow attendees to share their experiences working with large datasets to address agricultural and environmental issues concerning pesticide use and may also foster potential collaborations.

**Suggested Topics**

- Pest management and pesticide use in both ag and urban settings
- Pesticide use trends in high value cash crops
- Economic analysis of pesticide use and environmental impacts
- Pesticide environmental occurrence, mitigation methods and effectiveness and aquatic risk assessment
- Database and online mapping for monitoring data, outreach, and regulatory strategies
- Human health risk assessment for pesticides
- Pesticide illness surveillance and trends

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## ***Mechanistic Modeling and Effectiveness of Buffer Strips for Pesticide Regulatory Frameworks***

### **Purpose of Symposium**

Use of buffer strips is a well-known best management practice that could be included on crop protection product labels to mitigate pesticide loads from runoff, sediments, and drift from agricultural areas to water bodies. However, current regulatory tools can only deal with the effect of the drift that is being deposited on a water body. While a significant body of literature shows that specially-constructed vegetated filter strips (VFS) can reduce pesticides in runoff, no regulatory or academic tool has been formally accepted to evaluate VFS effectiveness or changes in exposure and risk assessments.

This symposium will focus on mechanistic descriptions and identification of factors that may affect the filter performance of VFS under real-world conditions, such as the effect of surface flow concentration, high water table, long-term accumulation and degradation of pesticides in the buffer areas, and soil preferential flow.

### **Suggested Topics**

- Regulatory need for a physically-based models to estimate the impact of buffer strips
- Mechanistic models to simulate buffer strips
- Examples of the implementation of buffer strips modeling in pesticide regulatory frameworks and its impact on exposure and risk assessments
- Advances in buffer strips modeling to account for filter efficacy due to high water table, preferential flow, pesticide accumulation/degradation within the buffer, etc.
- Field and monitoring studies (long-term preferred) of pesticide removal using buffer strips

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***Pesticide Registration, Monitoring, and Enforcement: The Big Picture***

**Purpose of Symposium**

This symposium will provide an overview to pesticide registration, monitoring, and enforcement. The goal of the symposium is to illustrate who does what in the complex world of pesticides. Speakers from US government will explain their agencies' roles and how their mission helps to ensure that pesticides are used correctly – keeping the consumer and environment healthy. Aspects of international pesticide standards setting and monitoring will also be presented.

This symposium will educate those in government, industry and academia who would benefit from a better understanding of the big picture of balancing pesticide benefits and risks. The target audience includes those who may already have a role with pesticides (including policy), but who want to understand better how their efforts fit into the larger scheme of pesticide oversight. This symposium will also allow those unfamiliar with pesticide registration and use, to learn the multi-faceted efforts to protect the environment and ensure a healthy food supply. Finally, for those with interest and/or experience with pesticides and agriculture, this symposium will identify a variety of agencies at which one might apply and further develop their skills.

**Suggested Topics**

- The roles of EPA and FDA in registering pesticides: what they require, how they assess pesticides and establish tolerances
- By whom and how pesticides are monitored in our food
- How pesticide residues are monitored in imports vs. domestically produced foods
- What happens when a pesticide is detected in our food at concentrations exceeding US regulatory limits
- How environmental safety of pesticides is determined
- International pesticide registrations; the Codex process
- US government's international efforts to support effective/harmonized pesticide evaluations in the rest of the world

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***Pesticides, Pollinator Health, and Agricultural Sustainability***

**Purpose of Symposium**

Overwintering losses of managed honey bee (*Apis mellifera*) colonies in the US over the past decade have averaged 30-40 percent, nationally. National surveys conducted by the Bee Informed Partnership indicate that beekeepers consider losses greater than 17 percent to be economically unsustainable. Some species of wild pollinators are reported to be declining as well. Although multiple factors (*i.e.*, pests, pathogens, pesticides, poor nutrition, suboptimal bee management practices) acting in combination have been associated with colony losses, segments of the public, including some researchers, attribute pollinator losses directly to pesticide exposures.

Previous ACS symposia have focused on the process used by regulatory authorities such as the US EPA to evaluate potential risks of pesticides to bees. The purpose of this symposium is to present advances in methods and tools to support the risk assessment process and the application of pesticide risk assessments and risk management to address pollinator health and agricultural sustainability. Special focus will be on elements of recently completed risk assessments which will be of interest to the world-wide regulated community and will underscore the strong foundation of science applied to assessing and mitigating potential risks. This symposium will also be of interest to the AGFD and ENVR.

**Suggested Topics**

- Pollinator health and agricultural sustainability
- Role of pesticides (*e.g.*, insecticides, fungicides, and herbicides) on pollinator health and agricultural sustainability
- Risk assessments to support regulatory decisions on pesticides
- Integrating lab and field-based studies for determining pesticide exposure and effects on pollinators
- Managing and mitigating risks of pesticides to pollinators
- Current and emerging tools and methods for evaluating effects of pesticide exposure on pollinators
- Model development to simulate exposure and effects to bees and pollinators
- Adverse outcome pathways (AOPs) as a conceptual model for integrating and evaluating data over multiple levels of biological organization
- Harmonization efforts across regulatory authorities for evaluating risk to pollinators
- Non-*Apis* bee exposure and effects
- Indirect effects of agrochemicals on insect pollinators
- Evaluating impacts of pesticides on pollination as an ecosystem service

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

**Purpose of Symposium**

The AGRO Division currently has programs in a number of 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, and Metabolomics
- Air Quality and Agriculture
- Agrochemical Toxicology and Mode of Action
- Bioenergy, Bioproducts, and Biochars: Advances in Production and Use
- Biorationale Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture
- Developments in Integrated Pest Management and Resistance Management
- Discovery and Synthesis of Bioactive Compounds
- Ecosystem and Human Health/Exposure and Risk Assessment
- Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Formulations and Application
- Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial and Worker Protection Products
- Non-Food/Feed Production and Uses of Ag Commodities and Byproducts
- Regulations, Harmonization, and MRLs
- 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**

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**January 23, 2017 – March 22, 2017**



**Call for Papers**  
**254<sup>th</sup> ACS National Meeting & Exposition**  
**August 20-24, 2017**  
**Washington DC, USA**

***Qualitative and Quantitative Endogenous Protein Detection***

**Purpose of Symposium**

Endogenous protein measurement is of concern for product development and regulatory evaluation of genetically modified (GM) organisms in agriculture. As part of the safety assessment, endogenous proteins, such as allergens, enzymes, and anti-nutrients from GM soybean, wheat, rice, potato, salmon, etc., are evaluated to consider if unintended changes in endogenous protein profiles have occurred with the insertion of the transgene relative to the conventional counterpart.

However, measurement of endogenous proteins from complex matrices present a number of analytical challenges, such as specificity of the analytical method to identify target analyte, lack of negative control tissue, and choice of analytical standard. Protein modification, such as lipidation, acetylation, glycosylation, oxidation, etc., adds even more analytical difficulty.

This symposium will discuss the analytical challenges associated with accurate detection of endogenous proteins as well as discussion for the safety assessment of endogenous proteins in the regulatory atmosphere. The symposium would be of interest to scientists practicing protein qualitative and quantitative analyses and to regulatory offices evaluating applications for product registrations. BIOL, ANYL, and AGFD may also be interested in this symposium.

**Suggested Topics**

- Advancements in biotechnology endogenous protein detection (e.g., multiplexing, throughput, accuracy)
- Method validation and optimization practices for endogenous protein detection
- Regulatory perspectives in endogenous protein (allergen) measurement
- Endogenous protein analytical standard selection and characterization
- Design and execution of allergenicity studies for agricultural biotechnology safety assessment
- Effects of genetic and environmental factors on endogenous protein levels

**For further information, contact the organizers**

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***Residue Analytical Method Transfer from Initial Method Development to End Use: Considerations for the Metabolism and Residue Chemists***

**Purpose of Symposium**

One of the most important scientific products to come out of a new pesticide registration application process is the analytical method to determine the residues of the active ingredient and its significant degradation products and metabolites. The analytical method must meet typical guideline requirements of high recovery, sensitivity, and selectivity. However, in order to produce a truly useful method, the method must also be rugged and robust. Moreover, the method must be applicable across a large cross section of different matrix types.

The primary focus of this symposium will be to discuss approaches to method development that produce methods that not only reach the goals of high recovery, sensitivity, and selectivity, but also are easy to use and transfer. This symposium will engender communication between metabolism chemists, residue analytical chemists, registrants, and those interested in learning more about analytical methods employed in the determination of pesticide residues. Bringing together the front end of the process (metabolism) with the final end user of the product (residue) will open dialogue about bridging the goals of the initial development process with the challenges of applying the method to all applicable uses. Other ACS divisions that may benefit from this symposium are ANYL, ENVR, and AGFD.

**Suggested Topics**

- Structuring method development with ease of use in mind
- Innovative ways to create methods that are both rugged and robust
- Promoting communication throughout the process of development (metabolism) to daily use (residue)
- Meeting and exceeding method documentation standards
- Evaluating ways to create feedback into the development process (from residue groups back to metabolism groups)
- Learning from successes, specifically the successful transfer of metabolism method to residues studies (what has worked and why)
- Learning from mistakes – how to improve the final product by applying lessons from failed ILV attempts
- Best practices of method transfer from Sponsor company to CRO (also group to group and lab to lab transfers)
- What to avoid to make method transfer easier
- Best communication practices between CRO and method developers

**For further information, contact the organizers**

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***Richard Allen Memorial Symposium:  
A Passion for Pesticide Fate in the Environment***

**Purpose of Symposium**

The purpose of this symposium is to honor the contributions of Dr. Richard Allen to the science of environmental fate of pesticides. Richard passed away suddenly on March 17, 2016. He was a brilliant scientist, a quick, pragmatic, out-of-the box thinker. He was passionate about the environment, particularly the fate of pesticides in soils, water, and air.

During his notable and productive career, Richard helped to develop new methods and ways to understand the fate of pesticides in soil and water. He was one of the pioneers of quantitative methods (i.e., modeling) pesticide fate in environment. Later, he was instrumental in developing effective monitoring programs that not only helped gather meaningful information, but he was also helpful in developing higher tier models to explain the fate of pesticides in the environment.

Richard collaborated with and mentored a number of people in various disciplines and backgrounds. As much as he was a passionate scientist, he was also a compassionate human being, capable of making anyone feel special. He was a leader who led by example.

**Suggested Topics**

To honor his career and contributions to pesticide fate in environment, we invite presentations not necessarily limited to the suggested topics below.

- Advances in modeling and monitoring of pesticides
- Adsorption kinetics
- Characterizing pesticide kinetics in soil and water to refine pesticide fate in the environment
- Regulatory vs. real-world modeling of aquatic and drinking water exposure
- Bioavailability and extractability of pesticide residues
- Crosswalk comparisons across ecoregions
- Conducting non-guideline studies for improved risk assessment
- Monitoring and modeling strategies for pollinator safety

**For further information, contact the organizers**

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***Risk Assessment and Beyond:  
Innovative Approaches to Meet FIFRA and ESA Consultation Needs***

**Purpose of Symposium**

This symposium will examine risk assessment methods currently used and will explore ways that proactive conservation actions, such as the development of on-the-ground programs, best management practices, and data collection, might be used to facilitate the FIFRA/ESA pesticide consultation process.

The registration and registration review of pesticides under FIFRA present many challenges to regulating agencies, pesticide registrants, and end-users when it comes to evaluating, ensuring, and/or communicating the adequate protection of species listed under ESA. Adequate protection is attainable through sound science, decisions that take into account various interactions within the environment, and knowledge about local conditions. In addition to exploring refined risk assessment techniques, this session will discuss local and regional examples of conservation and management programs that address pesticide use and serve to provide a net benefit to ESA-listed species.

This session will be of interest to pesticide registrants, pesticide users, regulating and wildlife management agency staff, and conservation-based organizations that attend the AGRO and ENVR sessions of the ACS meeting.

**Suggested Topics**

- Voluntary proactive consultation as a mechanism of species protection
- Programmatic approaches to consultation based on existing best management practices
- Strengthening the value of conservation strategies and aggregated data
- Approaches to pesticide risk assessment under a more programmatic policy
- The necessity of pesticides (most commonly herbicides) in protection and restoration of habitat for threatened and endangered species
- Applying tiered risk assessment to the FIFRA/ESA consultation process

**For further information, contact the organizers**

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***Roles of Natural Products for Biorational Pesticides in Agriculture***

**Purpose of Symposium**

Chemical products from nature have been used to control pests since the early beginnings of agriculture. Since these primitive years, natural products have played a direct role in controlling weeds, insects, plant pathogens, and nematodes.

This symposium will highlight the use and importance of natural products as biorational pesticides as related to agricultural commodities. Presentations will focus on the isolation of and applied use of natural products to agricultural systems. Chemical ecologists, chemists, biocontrol scientists, entomologists, and plant physiologists will benefit from the presentations. ACS members from BIOL, ANYL, ENVR, and AGFD will find the topics applicable to their fields.

**Suggested Topics**

- Host plant volatiles as attractants of herbivorous insects
- Synthetic formulations of host plant volatiles as an insect monitoring tool
- Sensitive collection techniques for *in situ* or in-field analyses of plant volatiles
- Plant-insect, plant-microbe interactions that influence insect pests or beneficial insects
- Plant- or microbe-produced natural products that influence insects, pathogens, nematodes, or weeds
- Plant-plant interactions that influence plant defense systems
- Plant-incorporated protectants for crop pest management

**For further information, contact the organizers**

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***Species Habitat Determination and  
Chemical Exposure Routes and Timing***

**Purpose of Symposium**

Novel and robust approaches for spatial and temporal characterization of potential exposure to non-target species (both listed and non-listed) and their associated habitat(s) are emerging as a central theme in agrochemical risk evaluation. Several challenges need to be addressed: 1) paucity of species habitat information that is currently available in digital form, 2) spatial and temporal complexities of dynamic landscape composition, and 3) definition of local-scale farm and crop management and associated exposure route (i.e., drift versus runoff), timing, and location of agrochemical application.

The goal of this symposium is to integrate novel frameworks, case studies, automated filtering, numerical simulation(s), and geospatial technologies and techniques with information related to species biology and life cycle, farm and crop management, environmental conditions, landscape composition, and land use change. This symposium is aimed at modelers, risk assessors, land use managers, and scientists applying spatial technologies to better integrate temporal and spatial information related to species habitat definition and associated agrochemical exposure routes and timing.

**Suggested Topics**

- Habitat information/description sources, modeling techniques, and characterization
- Environmental data analysis and synthesis
- Agrochemical product use, timing, farm and crop management related to exposure pathways
- Implications of mixtures and integrated pest management
- Species (listed and non-listed) biology and life cycle related to potential exposure to agrochemicals
- Landscape composition and land use change characterization
- Exposure estimates related to a percent crop treated concept
- Bias factor development for use with monitoring data
- Geospatial advances related to species habitat definition, species life cycle information, and temporal and spatial exposure characterization
- Bias factors with monitoring data

**For further information, contact the organizers**

Daniel Perkins, Waterborne Environmental, Inc., 217-903-2936, [perkinsd@waterborne-env.com](mailto:perkinsd@waterborne-env.com)  
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Caroline Wade, Illinois Corn Growers Association, 309-827-0912, [cwade@ilcorn.org](mailto:cwade@ilcorn.org)

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***Synthesis and Chemistry of Agrochemicals***

**Purpose of Symposium**

The symposium will highlight recent research in the synthesis and chemistry of agrochemicals. Presentations which describe the design, isolation, synthesis, biology, and/or structure-activity relationships of new chemistry targeting crop protection are welcomed.

**Suggested Topics**

- Insecticides: agronomic, urban, or animal health
- Herbicides
- Fungicides
- Nematicides

**For further information, contact the organizers**

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***Tiered Testing for Pollinator Protection:  
Experiences in Design, Implementation, and Interpretation***

**Purpose of Symposium**

The protection of pollinators is a high priority of regulatory agencies, registrants, and the agricultural community that requires clear guidelines, valid studies, sound science, and a commitment to clear communication and cooperation among all stakeholders. In July 2016, the US EPA Office of Pesticide Programs released two guidance documents for testing and assessing risk: *Process for Requiring Exposure and Effects Testing for Assessing Risks to Bees during Registration and Registration Review* and *Guidance on Exposure and Effects Testing for Assessing Risks to Bees*.

The objective of this symposium is to exchange experiences and successes in implementing these guidelines. How well are the guideline studies being adopted, and what challenges are laboratories facing? What experiences can be shared to improve efficiencies, reliability, and reproducibility? How can results be interpreted and used in risk assessments? How are exposure pathways measured and used in estimating exposure and the conduct of risk assessments? How best to balance statistical versus biological significance.

Intended audiences are researchers, contract labs, and registrants responsible for understanding and implementing these guideline studies, and registrants and regulatory agencies charged with evaluating and interpreting results.

**Suggested Topics**

- Shared experiences conducting Tier I studies – protocol objectives, study design, reliability, and reproducibility
- Experiences with larval toxicity ring-testing
- Experiences with adult chronic testing
- Possible factors contributing to reliability and reproducibility of results
- Impact of test matrices on toxicity results
- Analytical challenges for determining residues in different hive matrices
- Extrapolating relationships of toxicity from laboratory to field; translating study results to real-world field exposures and effects
- When does presence pose a risk? Evaluating exposure vs. hazard for pesticides in plant matrices; interpreting residue data vs. biological significance
- Impacts of pollinator risk assessments for product registration, mitigation, and label language
- Shared experiences with harmonization of testing methods with US, Canada, and the European Union

**For further information, contact the organizers**

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***Veterinary Drugs: Research, Residues, and Regulations***

**Purpose of Symposium**

Veterinary pharmaceuticals cover a broad topic area of importance, interest, and investigations. EuroResidue and Veterinary Drug Residue Analysis conferences are held alternately on even-numbered years in Europe, and SaskVal is held in Canada every other odd-numbered year (the next one will be in 2019), which gives ACS-AGRO an opportunity to fill the gap in the USA in 2017 with this topical symposium.

All aspects of research, residues, and regulations pertaining to the topic of veterinary drugs use or lack of use in organic food animal production practices are welcome. Speakers from academia, industry, NGOs, and government agencies from around the world are welcome to share new developments in their work, including the potential for antimicrobial resistance in human health and the ecosystem due to veterinary antibiotic use in agriculture.

**Suggested Topics**

- Antimicrobial resistance in veterinary applications and potential impact on health and the ecosystem
- Development and evaluation of new veterinary drugs
- New analytical methods for analysis of veterinary drug residues in different sample types
- Veterinary drug residues in the environment
- Regulatory aspects
- Antimicrobial applications in plant production
- Monitoring programs and results from around the world
- Veterinary drugs in aquaculture
- Changes in veterinary drug practices, including organic food production

**For further information, contact the organizer**

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# AGRO Programming Committee

## Standing Program and Champions

*Julie Eble, 2017 Programming Committee Chair*

### *Additional Volunteers Needed for Boston, Massachusetts 2018*

Contact: [julie.eble@eblegroup.com](mailto:julie.eble@eblegroup.com)

#### **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)  
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Teresa Wehner, [t.a.wehner@att.net](mailto:t.a.wehner@att.net)

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

Jim Seiber, [jseiber@ucdavis.edu](mailto:jseiber@ucdavis.edu)  
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#### **Agrochemical Toxicology and Mode of Action**

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Tom Sparks, [tcsparcks@dow.com](mailto:tcsparcks@dow.com)  
Dave Soderlund, [dms6@cornell.edu](mailto:dms6@cornell.edu)

#### **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)

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

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Si Hyeock Lee, [shlee22@snu.ac.kr](mailto:shlee22@snu.ac.kr)

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

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Wenming Zhang, [wenming.zhang@dupont.com](mailto:wenming.zhang@dupont.com)

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

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

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#### **Formulations and Application**

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#### **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)  
Jay Gan, [jgan@ucr.edu](mailto:jgan@ucr.edu)  
Teresa Wehner, [t.a.wehner@att.net](mailto:t.a.wehner@att.net)

#### **Non-Food/Feed Production and Uses of Ag Commodities and Byproducts**

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

#### **Regulations, Harmonization, and MRLs**

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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 Reuse**

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

*Julie Eble, 2018 Program Chair*

The new Programming Committee is actively working on a multi-year approach to programming which will use the Topics and Topic Champions above and will tie in programming with other ACS Divisions as well as with other national and international partners. We are refreshing the Committee's charter which will be captured in edits to the Operations Manual (See the "About Us" tab on the website).

Last year, Program Chair Jay Gan and the Program Committee put together an outstanding scientific program for the 252nd ACS National Meeting and Exposition in Philadelphia, Pennsylvania. This year, Program Chair Scott Jackson is orchestrating another excellent program for the 254th ACS National Meeting to be held in Washington DC, August of 2017, with over 35 planned symposia. And I am excited to be Program Chair for the 2018 256th American Chemical Society National Meeting and Exposition meeting which will be in Boston, Massachusetts. Let us continue our momentum and history of strong programming through brainstorming and preparation of symposia topics for the 2018 meeting.

I encourage you to consider chairing or co-chairing a symposium. The experience is an exciting and rewarding way to build or renew your career with excellent networking opportunities. AGRO enthusiastically supports symposium organizers with 7 Easy Steps for Organizing a Symposium and provides technical assistance from Officers and Program Champions. We are actively seeking volunteers, newer scientists, and Standing Program Champions to submit their symposium ideas for the 2018 Boston meeting and even for the 2019 meeting to be held in San Diego.

If you have an idea you want to explore or you want to put your toe in the water as a volunteer, please drop me an email at [julie.eble@eblegroup.com](mailto:julie.eble@eblegroup.com). If you are attending the Washington DC meeting, you can also submit your ideas at the AGRO table or come to the Brews and Blues meeting. Look for announcements in the eNewsletter, the next *PICOGRAM*, and on the website, and plan to attend the Program Planning Meeting (Blues and Brews) in Washington DC. We look forward to hearing from you!



## PROGRAMMING & OUTREACH ACTIVITIES

### 2017 – 2019

Activity/Event	Leaders/Champions	Status	Actions Required
2016 – 2017 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> </ul>	<ul style="list-style-type: none"> <li>Register to view webinars (p.64)</li> </ul>
253rd ACS National Meeting: San Francisco, California April 2-6, 2017		<ul style="list-style-type: none"> <li>AGRO to cosponsor several symposia in ENVR Technical Section (p.23)</li> </ul>	
54th North American Chemical Residue Workshop July 23-26, 2017 Naples, Florida	Steve Lehotay	<ul style="list-style-type: none"> <li>Co-Sponsored by AGRO</li> <li>Program to be released in late February</li> </ul>	<ul style="list-style-type: none"> <li>Submit abstracts for oral presentations by April 15, 2017</li> </ul>
254th ACS National Meeting August 20-24, 2017 Washington, DC	Scott Jackson	<ul style="list-style-type: none"> <li><b>Call for Papers – submit abstracts before March 22, 2017</b> (p.25)</li> </ul>	<ul style="list-style-type: none"> <li>Submit abstract and prepare to participate in the meeting</li> </ul>
2017 – 2018 AGRO Lunch and Learn Webinar Series	Laura McConnell	<ul style="list-style-type: none"> <li><b>Proposals for 2017 – 2018 webinars are being accepted</b></li> </ul>	<ul style="list-style-type: none"> <li>Contact Laura McConnell</li> </ul>
256th ACS National Meeting August 19-23, 2018 Boston, Massachusetts	Julie Eble	<ul style="list-style-type: none"> <li>Check the eNewsletter for planning session information at Washington DC</li> </ul>	<ul style="list-style-type: none"> <li>Volunteers NEEDED!!</li> <li>Symposia proposals due November 1, 2017</li> </ul>
258th ACS National Meeting August 25-29, 2019, San Diego, California	2018 Vice Chair	<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 NEEDED!!</li> <li>Symposia proposals due November 1, 2018</li> </ul>

## Future ACS National Meetings

### 253rd ACS National Meeting & Exposition

April 2-6, 2017, San Francisco, California  
*Advanced Materials, Technologies, Systems & Processes*

### 254th ACS National Meeting & Exposition

August 20-24, 2017, Washington DC  
*Chemistry's Impact on the Global Economy*

### 255th ACS National Meeting & Exposition

March 18-22, 2018, New Orleans, Louisiana

### 256th ACS National Meeting & Exposition

August 19-23, 2018, Boston, Massachusetts

### 258th ACS National Meeting & Exposition

August 25-29, 2019, San Diego, California

### 260th ACS National Meeting & Exposition

August 23-27, 2020, San Francisco, California

### 262nd ACS National Meeting & Exposition

August 22-26, 2021, Atlanta, Georgia

## 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

## 2016 – 2017 Lunch and Learn Webinar Series

### How to Eat a Plant:

#### Phytochemical Detoxification in Bees vs. Butterflies

March 16, 2017 at 12:00 PM Eastern US Time



May Berenbaum  
University of Illinois

### Global Evolution of Toxicity Testing and Assessment of Chemical Risk in the 21st Century

May 10, 2017 at 12:00 PM Eastern US Time

Co-sponsored by Society of Toxicology



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Dow AgroSciences

Check the website for more information – [www.agrodiv.org](http://www.agrodiv.org)

SPECIAL THANKS TO OUR SPONSOR  
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July 23-26, 2017

Naples Grande

Naples, Florida USA

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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*



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6<sup>th</sup> LATIN AMERICAN PESTICIDE RESIDUE WORKSHOP



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<http://laprw2017.fundacionucr.ac.cr>

# AGRO Division Officers, Councilors, and Executive Committee

## AGRO DIVISION OFFICERS



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



**Program Chair**  
**Scott Jackson**  
 919-547-2349  
 scott.jackson@basf.com



**Vice Chair**  
**Julie Eble**  
 484-431-6978  
 julie.eble@eblegroup.com



**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@criticalpathservices.com  
 Jeanette Van Emon, vanemon.jeanette@epa.gov  
 Aldos Barefoot, Alternate  
 Kevin Armbrust, Alternate

## EXECUTIVE COMMITTEE MEMBERS

### 2015 – 2017

Yelena Sapozhnikova, yelena.sapozhnikova@ars.usda.gov  
 Lacey Jenson, ljenson@vt.edu  
 Mike Krolski, mike.krolski@bayer.com  
 Leah Riter, leah.s.riter@monsanto.com  
 Thomas Sparks, tcsparks@dow.com

### 2016 – 2018

Charles Cantrell, charles.cantrell@ars.usda.gov  
 Heidi Irrig, heidi.irrig@syngenta.com  
 Thomas Stevenson, thomas.m.stevenson@dupont.com  
 Daniel Swale, dswale@gmail.com  
 Carmen Tiu, tcarmen@dow.com

### 2017 – 2019

Cheryl Cleveland, cheryl.cleveland@basf.com  
 Michelle Hladik, mhladik@usgs.gov  
 Qing Li, qingl@hawaii.edu  
 Paul Reibach, preibach@smithers.com  
 Amy Ritter, rittera@waterborne-env.com

## AGRO Division Past Chairs

1969 Donald G. Crosby  
 1970 Elvins Y. Spencer  
 1971 Wendell Phillips  
 1972 Philip C. Kearney  
 1973 Roger C. Blinn  
 1974 Charles H. Van Middlelem  
 1975 Henry F. Enos  
 1976 Julius J. Menn  
 1977 James P. Minyard  
 1978 Gerald G. Still  
 1979 S.K. Bandal  
 1980 Jack R. Plimmer  
 1981 Marguerite L. Leng  
 1982 Gino J. Marco  
 1983 G. Wayne Ivie  
 1984 Robert M. Hollingsworth

1985 John Harvey, Jr.  
 1986 Henry J. Dishburger  
 1987 James N. Seiber  
 1988 Paul A. Hedin  
 1989 Gustave K. Kohn  
 1990 Willa Garner  
 1991 Guy Paulson  
 1992 Joel Coats  
 1993 Larry Ballantine  
 1994 Nancy N. Ragsdale  
 1995 Don Baker  
 1996 Barry Cross  
 1997 Willis Wheeler  
 1998 Judd O. Nelson  
 1999 Richard Honeycutt  
 2000 Ann T. Lemley

2001 Jeffery Jenkins  
 2002 Terry D. Spittler  
 2003 Jeanette Van Emon  
 2004 Rodney Bennett  
 2005 Allan Felsot  
 2006 R. Donald Wauchope  
 2007 Laura L. McConnell  
 2008 John J. Johnston  
 2009 Kevin L. Armbrust  
 2010 Ellen L. Arthur  
 2011 Kenneth D. Racke  
 2012 Aldos C. Barefoot  
 2013 John M. Clark  
 2014 Stephen O. Duke  
 2015 Cathleen J. Hapeman  
 2016 Pamela J. Rice

# 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.

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

## 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:** The Nominating Committee Chair is the Immediate Past Chair; other members are traditionally the past two Chairs.

## \*\* PROGRAMMING COMMITTEE

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

**Composition:** The Programming Committee Chair is the Division Vice-Chair; the Division Program Chair is a committee member. The Committee Chair nominates as many members as necessary to ensure 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@criticalpathservices.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.mcconnell@bayer.com  
Jeff Jenkins – Public Relations  
Nancy Ragsdale – Pesticide Outlook Liaison  
Sharon Papiernik – Awards Coordinator  
Leah Riter – Social Media 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.mcconnell@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,  
Paul Reibach

## 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

## 2017 NOMINATING COMMITTEE

Pamela Rice, Chair, 612-624-9210  
pamela.rice@ars.usda.gov  
Cathleen Hapeman, 301-504-6451  
cathleen.hapeman@ars.usda.gov  
Steve Duke, 662-915-1036  
stephen.duke@ars.usda.gov

## PROGRAMMING COMMITTEE (see p. 62 for listing)

Scott Jackson, Chair, 919-547-2349  
scott.jackson@basf.com

## Webinar Subcommittee

Laura McConnell, Chair, 919-549-2012  
laura.mcconnell@bayer.com  
**MEMBERS:** John Clark, Steve Duke

## 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

## STRATEGIC PLANNING COMMITTEE

Ashli Brown Johnson, Co-Chair, 662-325-3428  
abrown@mscl.msstate.edu  
Julie Eble, Co-Chair, 484.431.6978  
julie.eble@eblegroup.com



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# AGRO Division Conference Call

Tuesday, June 28, 2016

10 AM ET

## Minutes

Sharon Papiernik, Secretary

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### ATTENDANCE

*Officers:* Pam Rice, Chair; Jay Gan, Program Chair; Scott Jackson, Vice Chair; Cathleen Hapeman, Past Chair; Del Koch, Treasurer; Sharon Papiernik, Secretary; Rodney Bennett, Jeanette Van Emon, Councilors

*Executive Committee Members (EC):* John Beck, Cheryl Cleveland, Julie Eble, Heidi Irrig, Lacey Jenson, Marja Koivunen, Leah Riter, Amy Ritter, Tom Sparks, Daniel Swale, Carmen Tiu

*Committee Chairs:* Ashli Brown Johnson, Joel Coats, Steve Lehotay, Laura McConnell, Ken Racke

*Secretariat:* Peney Patton

### Welcome and Roll Call – Pam Rice

### NEW BUSINESS

#### 1. Philadelphia Programming – Jay Gan

Jay Gan sent greetings from China. After many months of planning and guidance from Cathleen Hapeman, Pam Rice, and Peney Patton, things are coming together. A total of 375 abstracts were submitted, including 315 oral and 60 posters. Gan acknowledged Hapeman's help in laying out sessions. AGRO will have solid, exciting programming Sunday-Thursday. Usually 5 concurrent sessions with >30 symposia, ranging from 1 to 3 half-day sessions. Because the number of posters is relatively small, these sessions will be Monday afternoon and Tuesday afternoon; posters will be in same location (hotel) as the rest of AGRO programming. AGRO is co-located and integrated with ENVR. Coffee will be in poster rooms and/or in lobby area near AGRO programming.

One speaker in Philly cannot attend. Looking into options for this presentation: may Skype or pre-record the presentation. How does AGRO want to handle non-attending presenters in the future? Participating remotely presents issues, including costs to the participant (need to register for a meeting they cannot attend) and to AGRO (additional A/V costs). The DAC has a policy on remote presentation that should be reviewed before further action.

**FOLLOW-UP:** AGRO Chairs will find a workable solution for the 2016 meetings. The EC will discuss at Philly Combined Governance meeting how future instances will be managed.

#### 2. Elections update – Cathleen Hapeman

AGRO voting closes tonight. Some races are close. Already more than 25% of members have participated: 316 votes were cast so far. About 10 comments on the ballots were sent and ranged from a delightful method of voting to a lack of breadth regarding candidate expertise, particularly herbicide expertise. The nomination committee tried to get candidates with diverse expertise, and future committees should be aware of this need.

#### 3. Strategic Planning Workshop, Oct. 2016 – Ashli Brown Johnson, Julie Eble

The workshop will be held at ACS headquarters in Washington DC. The organizers decided on a list of 18 invitees; they already have 12 confirmations. Plans are moving forward. Organizers are working with Mark O'Brien at ACS.

#### 4. ACS Division Resources Program – Pam Rice

ACS offered resources to 6 Divisions to help them grow membership and become more responsive to emerging threats and opportunities. AGRO accepted, and we nominated AGRO champions Steve Duke, Steve Lehotay, Leah Riter, Amy Ritter, Jim Seiber, Daniel Swale, and Jeanette Van Emon. More information will be coming. Rod Bennett noted that the DAC is using this program to help divisions improve their business model, market the Division, and increase inter-divisional cooperation.

#### 5. SETAC Global Research Needs Survey – Pam Rice

A survey was conducted in partnership with ENVR and SETAC, including at the Boston ACS meeting. Survey responses were compiled, sorted and prioritized during a special workshop held in Nov. 2015. SETAC requested e-mail addresses of AGRO members; ACS granted permission for them to send one e-mail to AGRO members requesting them to participate in the next phase of the survey, which is a 5-step process.

**FOLLOW-UP:** Peney Patton will get eRosters from Sharon Papiernik and will respond to this request.

#### 6. ACS-SERMACS Regional Meeting, Oct. 2016, Columbia, SC – Laura McConnell

Laura McConnell is co-organizing a symposium with ENVR for the Southeast Regional meeting: Finding Solutions to Environmental Problems in Agriculture. This will be a half-day session. The symposium has support from SE region (\$500). Requesting AGRO and ENVR to each provide up to \$1500 for a total of \$3500. Funds to be used to support speaker travel for the regional meeting (\$900 for registration; \$1100 for speaker travel) and also to support 3 students to attend a subsequent national/regional ACS meeting (3x \$500). Question whether there is also an opportunity to involve local sections. Maybe consider this as a springboard for an IPG to increase student involvement. **MOTION:** AGRO contributes up to \$1500 to support SERMACS Regional Meeting in cooperation with ENVR. Motion passed.

#### 7. FEWS Symposium, 255th ACS Meeting, Mar. 2018, New Orleans, LA – Scott Jackson, Diana Aga

AGRO received a request to co-sponsor a symposium on the Food-Energy-Water System (FEWS) at the Spring 2018 meeting. It is unknown at this time whether they are looking for a financial co-sponsorship. If this is nominal (non-monetary) co-sponsorship, the Vice Chair can decide. Follow up: Diana Aga will ascertain if the organizers are asking for financial support. If so, the EC will vote at the governance meeting in Philly.

### CONTINUING BUSINESS

#### 1. Secretary's Report – Sharon Papiernik

AGRO business since the Jan 22 teleconference: The Administrative Annual Report was filed. ACS asked AGRO to send one representative to participate in a special symposium organized by the CHED Division at the Philly meeting. Each

division has the opportunity to give a 20 minute talk on how chemistry from that particular division affects the people of Earth. Kevin Armbrust volunteered to participate on behalf of AGRO. AGRO received its report card from the DAC, which was distributed to the EC and committee chairs. AGRO was awarded an IPG for the AGRO Strategic Planning effort; thanks to Ashli Brown Johnson and Julie Eble for their leadership. Follow up from Jan 22 teleconference: Steve Lehotay will file a final report for the membership IPG project.

## **2. Treasurer's Report – Del Koch**

Financial report filed. Requested an extension for filing taxes, now due August 15. Paperwork is in place to give Joel Coats and Del Koch authority to move funds out of JP Morgan accounts.

Form 1099 IRS Requirements for awards and honoraria: Per ACS training, AGRO should file a Form 1099 for prizes/awards/speaker fees exceeding \$600. Travel reimbursement such as student travel grants may be exempt; we ask for documentation of travel expenses. ACS suggests that Del Koch request a Form W9 and file a 1099 for award winners and payments that are not reimbursements. If this will be a burden to AGRO, we can ask ACS for support. In Philly, this would include award winners who are US citizens. Would also include honoraria (for example, as for past ECYART speakers).

## **3. Councilor's Report – Jeanette Van Emon/Rod Bennett**

Nominees for President-Elect for 2018 are Thomas Gilbert and Peter Dorhout. Jeanette Van Emon is on 2020 Task Force, discussing election reform. Current process is that Councilors present Presidential candidates for consideration, or they are nominated by petition. Some elections have become full-blown campaigns – how does ACS feel about that? There is interest in elevating the position of ACS President. In Philly, ACS President is holding several symposia on safety and ethics.

AGRO programming in Philly includes a number of room re-assignments. For example, some symposia will be moved between half-day portions. We will evaluate any issues with room assignments and bring any concerns to the DAC via our Councilors. This often occurs because the hotel needs space for another purpose.

Formula for Divisional allocations will be reviewed next year. Incentives are being considered for international outreach; local/regional programming.

## **4. Awards Committee – Jim Seiber**

Jim Seiber submitted the awards committee report to the *PICOGRAM*. All AGRO members are encouraged to consider nominating worthy members for the division fellow, International, and Innovation Awards.

## **5. Communications Committee – Cathleen Hapeman**

Cathleen Hapeman is in the process of putting the *PICOGRAM* together. Goal is to get to press shortly after July 4. Abstracts will be available online around mid-July.

Yelena Sapozhnikova has been doing a great job running the eNewsletter. She will be working with Jay Gan to send reminders of upcoming Philly meeting events.

## **6. Development Committee – Scott Jackson**

Sponsorship is increasing, and there are some last-minute sponsorships. Requests for free registration continues to be an

issue with invited speakers. Consider talking with ACS HQ about reduced registration?

## **7. Early Career Scientist Committee – Diana Aga, Marja Koivunen**

AGRO received 24 applications for student travel awards. The committee chairs note that it is never an easy task to make the call on applications; they selected 21 for travel awards. The unsuccessful applications included extended abstracts with very little data. Each student will get \$810 (\$210 registration + \$600 for travel support), so AGRO will spend a \$17,000 for travel awards. Also committing \$600 for poster awards (\$300 for 1<sup>st</sup> place, \$200 for 2<sup>nd</sup> place, \$100 for 3<sup>rd</sup> place).

Question: when are awards given out? Answer: checks are given Wednesday evening at the social. To facilitate judging, the committee chairs liked the old set-up where students had their own poster session. Now students are integrated better into the programming but it is difficult for judges to find students at their poster. Oral presentations are not eligible for student poster awards.

**FOLLOW UP:** Committee chairs will discuss with Division chairs ways to ease evaluation of student poster and oral presentations, how to schedule, how to provide feedback.

## **8. Finance Committee – Joel Coats**

Investments: Educational trust with JP Morgan: balance was \$442K as of early June. T Rowe Price is income fund. In 2008, value in all investments was \$580K, this dropped to \$160K but now back to \$607K total.

## **9. International Activities Committee – Ken Racke, Jay Gan**

IUPAC International Award for Global Harmonization will be presented at ACS in Philly on August 24th at 8:30 am in Commonwealth Hall D at the Who Should Regulate Pesticides in Our Food? Symposium. Latin American Pesticide Residue Workshop (LAPRW) will be in May 2017. In the past, AGRO has co-sponsored poster awards at LAPRW (\$1000). IUPAC Pesticide Congress will be in Brazil in 2018. May be a change in timing and/or venue. AGRO had a good experience with co-sponsoring Pacificchem; next meeting will be 2020. Plans will need to be made regarding AGRO's involvement in 2020 Pacificchem; planning starts early.

**MOTION:** AGRO will sponsor 2 poster awards at \$500 each for the LAPRW. Motion passed.

## **10. Membership Committee – Steve Lehotay**

There are 1237 regular AGRO members. Membership is dropping slowly but is largely sustained. AGRO lost only 160 of the 800+ who joined at IUPAC 2014; most are maintaining Affiliate Membership. Affiliate members are not able to vote because they are not ACS members. DAC encourages Divisions to learn why Affiliates dropped and why current Affiliates are not upgrading to regular membership. The perception is that many are international who have few resources to join ACS or to stay as AGRO affiliates. DAC may have resources to help with special needs. Membership is expensive, and the Membership Committee believes that comparisons with other societies should also compare the value of membership, including benefits, etc. In 2014, 23K people joined ACS but only 8K joined one of the Divisions. This may be because the website is not set up well to highlight Divisions, it is not clear what the Divisions do, etc.

### 11. Webmaster – *Laura McConnell*

Recent developments: AGROdiv.org is formatted for mobile devices; let Laura McConnell know of any problems. Constructed individual pages for Sterling Hendricks and other awards. Links to webinars, biographies, how to apply/nominate someone for each award. Will update website after *PICOGRAM* is completed. If you have something to post to the website, have suggestions, or want to help, let McConnell know. Maybe officers should be able to login and make small changes? May need to be updated/refreshed within next few years, maybe following next Strategic Planning meeting?

ACS program is now primarily online and they will charge for a paper copy. The new ACS website will have a large presence for Divisions. This happened thanks to DAC and special effort from AGRO Councilors Van Emon and Bennett. Division links should be available from online program. Twitter and other social media is valuable in generating an audience for AGRO programming. Leah Riter is interested in leading this. Bennett can connect with ACS and/or other divisions regarding how to Tweet on behalf of the Division. McConnell will send Riter the login for the AGRO Twitter account.

**FOLLOW UP:** Committee will report back at AGRO Combined Governance meeting.

**Sidebar:** McConnell is a member of the ACS Environmental Improvement Committee. Among other things, this committee writes policy statements (for example, on risk assessment/risk management of chemicals) for ACS. The Society supports these statements with national meeting programming. One goal is increasing industry participation in ACS. As part of this effort, AGRO was contacted by ACS HQ requesting information about whether we had an industry committee. Scott Jackson is setting up a meeting in Philly in which he will assemble some industry members of AGRO so that ACS can hold a Q&A.

### 12. IPG Update – *Daniel Swale, Lacey Jenson*

Early career scientist symposium IPG is in Year 2; a session for Philly is being organized by Aaron Gross. All funds are obligated and should be expended by end of August. Follow up: Discuss at Philly Combined Governance how AGRO should continue to support early career scientist development. This could be supported by Education Fund, and/or by seeking industrial sponsorship.

### 13. 2017 National Meeting– *Scott Jackson*

Plans for Washington DC are progressing. Program planning will be discussed in Philly at Blues and Brews on Tuesday. Scott Jackson is looking for programming ideas. AGRO members should watch for communication from the Program Chair.

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# AGRO Division Combined Governance Meeting Sunday, August 21, 2016, 5 PM Lowes Philadelphia Hotel Regency Ballroom A Minutes

Sharon Papiernik, Secretary

---

## ATTENDANCE

*Officers:* Pam Rice, Chair; Jay Gan, Program Chair; Scott Jackson, Vice Chair; Cathleen Hapeman, Past Chair; Del Koch, Treasurer; Sharon Papiernik, Secretary; Rodney Bennett, Jeanette Van Emon, Councilors; Aldos Barefoot, Kevin Armbrust, Alt. Councilors

*Executive Committee Members (EC):* John Beck, Cheryl Cleveland, Julie Eble, Heidi Irrig, Marja Koivunen, Mike Krolski, Leah Riter, Amy Ritter, Tom Stevenson, Carmen Tiu

*Committee Chairs:* Ashli Brown Johnson, Joel Coats, Steve Lehotay, Laura McConnell, Ken Racke, Jim Seiber

*Secretariat:* Peney Patton

*Guests:* Brett Clark, Andrew Coates, Aaron Gross, Michelle Hladik, John Johnston, James Klimavicz, Qing Li, Ann Lemley, Kalumbu Malekani, Edmund Norris, Chris Peterson, Paul Reibach, Philip Sarff, Randy Weintraub, Teresa Werner

1. **Welcome and Roll Call – Pam Rice**
2. **Philadelphia Programming – Jay Gan**
  - a. 27 oral sessions with >320 abstracts with 5 concurrent sessions Sunday through Thursday; 2 posters sessions with 60 abstracts
  - b. Programming in 10 of 15 standing technical topics
  - c. Jay thanked symposium organizers, Peney Patton and past program chairs Cathleen Hapeman and Pam Rice for their help, acknowledging both their expertise and willingness to help.
3. **Program Administration – Peney Patton**
  - a. ACS made many improvements to MAPS, so programming went more smoothly than in 2015. One ACS staff member is assigned to assist with MAPS; he was very responsive to AGRO's requests.
  - b. Symposium organizers are acknowledged for refraining from inappropriately offering complimentary registrations. This is still confusing because forms and processes were merely revised from previous years', but Peney has some suggestions to make this more clear. These should be implemented in 2017.
  - c. ACS poster sessions are typically in the Convention Center, but AGRO is allowed to host ours near our oral sessions, with coffee served in the poster room. This year the poster sessions were split into 2 sessions with the presenters available after the coffee break. [Comments: coffee is expensive but much appreciated; it facilitates conversation and networking.]

- d. Attendees were encouraged to announce in the program sessions that ACS does not provide WiFi in the conference hotels because it is prohibitively expensive. It was noted that the mobile program app does not require WiFi once it is downloaded.
- 4. Elections – Cathleen Hapeman and Pam Rice**
- a. Approximately 27% of AGRO members voted, which is consistent with recent years.
- b. Results are printed in the *PICOGRAM*. The 2017 Vice Chair will be Julie Eble. Del Koch and Sharon Papiernik were re-elected to their roles as Treasurer and Secretary, respectively. Executive committee members-at-large for 2017-2019 will be Cheryl Cleveland, Michelle Hladik, Qing Li, Paul Reibach, and Amy Ritter. Yelena Sapozhnikova will complete Julie Eble's term on the executive committee (through 2017).
- c. Members are encouraged to run for office. Pam requested that attendees write down the names of those who might be interested in running for Vice Chair and member-at-large; she will contact these people as chair of the nominative committee.
- 5. Strategic Planning Workshop, Oct. 2016 – Ashli Brown Johnson and Julie Eble**
- a. The meeting is scheduled to be held October 22-23, 2016, at ACS headquarters in Washington DC. Day 1 will be 8 hours; Day 2 will be 4 hours. The organizers will convene a conference call with ACS in August, 2016. Organizers will be meeting with the EC and attendees for pre-meeting work including drafting/reviewing mission statement, vision statement, list of goals, etc. ACS will be sending a survey on behalf of the Strategic Planning workshop organizers to obtain broad input.
- b. IPG will support Strategic Planning workshop at \$2K to offset some of the costs. Expenses are expected to be \$18-20K, including a \$1500 retreat fee; a \$1000 facilitator fee; \$1500 for use of ACS headquarters for the meeting; catering; Saturday dinner for attendees; attendee travel expenses.
- c. So far, 12 members have confirmed their intent to participate with a few still undecided. The organizers are striving for a diverse panel in terms of employment, experience, background, etc.
- MOTION:** AGRO should provide meals for all attendees on Friday and Saturday, and should provide box lunches for Sunday so that there are no out-of-pocket expenses for attendees. The organizers promise to keep the arrangements relatively modest, and be cognizant of the expectation that the meeting cost ~\$20K. Passed.
- MOTION:** AGRO should support Peney Patton's acting as note-taker at meeting; AGRO will pay salary and travel expenses. Passed.
- 6. Committee on Environmental Improvement (CEI) Collaboration – Laura McConnell**
- a. The CEI's mission is to advance sustainability thinking and practice across ACS and society for the benefit of earth and its people. It is an ACS Board-level committee. It is oriented toward scientific policy, and manages for ACS policy statements relating to the environment. It is strongly connected to the Green Chemistry Institute and ENVR Division, as well as ACS Office of Public Affairs.
- b. The CEI's goals are to 1: Engage key researchers, industry decision makers, and consumers to incorporate sustainability into their practice and use of chemistry; 2: Equip ACS members and advocates to be influential voices about policies in sustainable chemistry via development of appropriate tools for the relevant audiences; and 3: Engage networks of chemists and citizens to advance sustainability education and communication.
- c. The CEI is currently addressing the topic of Chemical Risk Assessment and Regulatory Decision Making. Their recently-revised statement specifically supports the risk assessment and risk management approach utilized by EPA and supported by NRC documents. The policy statement is currently in ACS review and will be voted on by the ACS Board towards the end of the year. CEI seeking to sponsor programming to highlight the new policy release.
- d. Laura McConnell proposed that AGRO work with ENVR and TOXI to develop a symposium at the Washington DC meeting and volunteered to co-organize that symposium. The EC embraced her involvement in the CEI.
- e. Jim Seiber noted that the CEI is emulating AGRO's strategic planning, program planning (including Blues and Brews) and other ongoing planning.
- f. Rod Bennett recommended that this symposium link to MPPG and the Washington DC region of ACS.
- 7. SETAC Global Research Needs Survey – Pam Rice**
- a. Phase I of the survey was reported during the January 2016 AGRO teleconference. Phase II will include follow-up questions sent by ACS to AGRO members. This survey will request that participants rank the research needs regarding their relative importance. Responses can be used to identify potential areas of new/expanded programming and collaborative opportunities with SETAC and ACS-ENV at ACS and/or SETAC meetings.
- b. AGRO might consider following the model of ENVR, which sponsors travel for students attending both ACS and SETAC.
- 8. AGRO on social media – Leah Riter**
- a. AGRO is on Twitter and Linked In, and Leah Riter is leading this aspect of social media. Followers include teachers, students, data scientists, ACS and AGRO members. Leah encouraged AGRO leaders who are not on Twitter and Linked In to join these networks, to follow AGRO, and to recommend AGRO feeds to their colleagues.
- b. Send to Leah information you would like to have posted on AGRO's social media, including links to new and exciting papers, news and events, etc. Linked In is intended to be used to provide information to job seekers (on behalf of both potential employees and employers), to publicize AGRO awards, etc.
- c. Creative people are requested to help with the look of AGRO social media.
- 9. FEWS Symposium co-sponsorship – Scott Jackson**
- a. Diana Aga is the contact, but was not able to attend the meeting. Before the meeting, she provided the chair with a summary of the request: POLY and ANAL Divisions are asking from AGRO to become co-sponsor for the proposed symposium on "Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors." She forwarded these

comments from the organizer: "We are hoping that some financial support from AGRO could be used to sponsor a key note speaker with the attention of raising awareness of polymer scientist and engineers to the issues at the FEWS nexus from your perspective. POLY will also provide support, and I am hoping that you could propose a \$1500 to \$2000 request, to support a leader in your field to present at our symposium." She noted that this symposium is now planned for the 2017 meeting in Washington DC as requested by NSF who is providing most of the conference funds.

**MOTION:** AGRO should co-sponsor the FEWS symposium and provide up to \$2000 in funding to support a keynote speaker at the Washington DC symposium. Withdrawn pending more information. Discussion centered around whether AGRO would select the keynote speaker, or would the other Divisions, in which case AGRO is just handing over the money with little input.

**ACTION:** AGRO should sponsor a symposium at the Washington DC meeting on FEWS to complement the one for which co-sponsorship was requested. Carmen Tiu volunteered to organize a Fall 2017 AGRO session on FEWS.

**10. Secretary's Report – Sharon Papiernik**

Update since the June 28 AGRO teleconference: AGRO election results were received and certified. Cathleen Hapeman phoned each candidate to notify them of the outcome, and Sharon followed up with letters. Plans were made for the Philadelphia meeting.

**11. Treasurer's Report – Del Koch**

Del noted that AGRO will provide 1099 forms for all awards (not reimbursements) exceeding \$600. Award winners should be reminded to provide their information to Del.

	2015	2016 to Date	2017 Budget?	Comments
<b>Income</b>				
<b>1. Contributions</b>				
A.Meeting Grants	\$7,500.00	\$16,000.00	\$20,000.00	
B.Meeting Awards	\$14,000.00	\$14,000.00	\$5,000.00	
C.Non-meeting Grants	\$0.00	\$0.00	\$0.00	
D.Non-meeting Awards	\$0.00	\$0.00	\$0.00	
E.Innovative Project Funding	\$7,500.00	\$2,000.00	\$5,000.00	
F.Donations	\$28,400.00	\$14,000.00	\$28,000.00	
G.Other Contributions	\$5,000.00	\$6,000.00	\$6,000.00	Webinar Sponsor
H.New Member Commissions	\$135.00	\$30.00	\$100.00	
I.Rebate from ACS for Councilor Travel	\$3,349.60	\$2,735.34	\$5,000.00	
<b>Total Contribution Income</b>	<b>\$65,884.60</b>	<b>\$54,765.34</b>	<b>\$69,100.00</b>	
<b>2. Membership Dues</b>				
A.February Dues Payment	\$8,197.00	\$8,111.00	\$8,100.00	
B.August Dues Payment	\$5,633.00	\$0.00	\$5,500.00	
C.Dues Paid Directly to Division	\$0.00	\$0.00	\$0.00	
D.Annual Division Allocation from ACS	\$46,853.07	\$30,376.18	\$45,000.00	
<b>Total Dues and Assessment Income</b>	<b>\$60,683.07</b>	<b>\$38,487.18</b>	<b>\$58,600.00</b>	
<b>6. Investment Income (Operating Account)</b>				
A.Interest on Savings or Temporary Cash Investments	\$1.19	\$0.00	\$0.00	
B.Dividend and Interest from Securities	\$15,760.73	\$32,059.76	\$10,000.00	Thru 8/17/16
<b>Total Investment Income</b>	<b>\$15,761.92</b>	<b>\$32,059.76</b>	<b>\$10,000.00</b>	
<b>7. Capital Gain (Loss) from Sales of Securities</b>				
A.Gross Amount from Sale of Securities	\$5,609.82	\$0.00	\$10,000.00	
B.Less: Cost or Other Basis and Sales Expenses	\$31,354.50	\$0.00	\$2,500.00	
<b>Gain or Loss</b>	<b>-\$25,744.68</b>	<b>\$0.00</b>	<b>\$7,500.00</b>	
<b>8. Royalties</b>				
Royalties	\$1,166.89	\$910.34	\$1,800.00	
<b>TOTAL INCOME FROM ALL ACTIVITIES</b>	<b>\$117,751.80</b>	<b>\$126,222.62</b>	<b>\$147,000.00</b>	

	2015	2016 to Date	2017 Budget?	Comments
<b>Expenses</b>				
<b>1. Contributions</b>				
A.Meeting Grants and Awards	\$0.00	\$0.00	\$0.00	
B.Non-meeting Grants and Awards	\$0.00	\$0.00	\$0.00	
C.Donations and other Contributions	\$0.00	\$0.00	\$0.00	
<b>Total Contributions</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
<b>4. National Meeting Expenses</b>				
A.Speaker Fees and Per Diem	\$45,409.53	\$0.00	\$40,000.00	
B.Guest Registrations	\$4,295.00	\$0.00	\$4,500.00	
C.Speaker Breakfast/Lunch/Dinner	\$0.00	\$1,000.00	\$3,500.00	
D.Other Speaker Costs	\$0.00	\$0.00	\$0.00	
E.Planning Expenses	\$8,671.43	\$4,765.00	\$8,500.00	
F.Social Events	\$27,177.79	\$0.00	\$25,000.00	
G.Audio/Visual Equipments	\$6,712.77	\$0.00	\$7,000.00	
H.Other	\$1,817.82	\$3,786.66	\$2,000.00	
<b>Total National Meeting Expenses</b>	<b>\$94,084.34</b>	<b>\$9,551.66</b>	<b>\$90,500.00</b>	
<b>5. Investment Expenses</b>				
Investment Expenses	\$2,304.80	\$0.00	\$2,500.00	
<b>Total Investment Expenses</b>	<b>\$2,304.80</b>	<b>\$0.00</b>	<b>\$2,500.00</b>	
<b>7. Publication Expenses</b>				
A.Membership Directories - printing	\$0.00	\$0.00	\$0.00	
B.Newsletters/Ballots - printing	\$29,811.89	\$10,600.00	\$35,000.00	
C.Abstract Separates - printing included with newsletter	\$0.00	\$0.00	\$0.00	
D.Preprints/Reprints - printing	\$0.00	\$0.00	\$0.00	
E.Postage and Shipping	\$10,316.11	\$4,883.71	\$10,000.00	
F.Other	\$0.00	\$0.00	\$0.00	
<b>Total Publication Expenses</b>	<b>\$40,128.00</b>	<b>\$15,483.71</b>	<b>\$45,000.00</b>	
<b>8. Conferences / Workshops/ Meetings</b>				
A.Inter-Divisional Activities	\$0.00	\$0.00	\$0.00	
B.Other Activities	\$17,783.05	\$6,343.97	\$10,000.00	2016 Webinar+Pacifiche
<b>Total Conferences/Workshops</b>	<b>\$17,783.05</b>	<b>\$6,343.97</b>	<b>\$10,000.00</b>	
<b>9. Administrative Expenses</b>				
A.Officers	\$0.00	\$0.00	\$0.00	
B.Committees	\$0.00	\$0.00	\$0.00	
C.Councilors	\$5,581.14	\$3,097.96	\$9,000.00	
D.National Meeting Travels/Meals	\$2,197.30	\$343.99	\$6,500.00	
E.Communications (Postage, telephone etc.)	\$3,303.72	\$2,418.69	\$3,500.00	Postage+Website Etc.
F.DLC/P2C2 Expenses	\$369.60	\$742.20	\$3,500.00	
G.Office Supplies and Operations	\$22.90	\$33.60	\$50.00	Checks
<b>Total Administrative Expenses</b>	<b>\$11,474.66</b>	<b>\$6,636.44</b>	<b>\$22,550.00</b>	

	2015	2016 to Date	2017 Budget?	Comments
<b>Expenses</b>				
<b>10. Other Expenses</b>				
Other Expenses	\$110.00	\$0.00	\$1,000.00	
Total Other Expenses	\$110.00	\$0.00	\$1,000.00	
<b>TOTAL EXPENSES</b>	<b>\$163,580.05</b>	<b>\$38,015.78</b>	<b>\$169,050.00</b>	
<b>GAIN (LOSS), OPERATING ACCOUNT</b>	<b>-\$45,828.25</b>	<b>\$88,206.84</b>	<b>-\$22,050.00</b>	
<i>Note: 2013 reflected a gain of \$135,881.82, which was in part reflective of IUPAC 2014 sponsorship contributions received that year.</i>				
<i>2014 reflected a loss of \$48,133.05.</i>				
<i>Request for Pacifichem Re-imburement was submitted April 2016; latest communication is that there should be some re-imburement funds available; probably in September.</i>				

**12. Councilor's Report – Jeanette Van Emon and Rod Bennett**

- a. Last Councilor's report is on Page 54 of *PICOGRAM*. Jeanette is on committees that decide on IPG and ChemLuminary awards. She encourages AGRO to self-nominate with a local section (i.e., KC section on Spencer Award in partnership with AGFD) for a ChemLuminary Award. DAC is looking at the election process for ACS President because the two processes (vetting by council and petitioning) are not viewed as equal. They are also looking at requirements for Councilors regarding governance. The Council is focusing on professionalism and the process to remove a Councilor. The Council received suggestions for 2 new divisions: materials and space chemistry. If new divisions are created, existing technical divisions may lose a Councilor because there are a fixed number of Councilors. A few years ago, a proposal to create a NANO division failed.
- b. The technical divisions now have more presence on the ACS website, including thumbnails to summarize each division. Members are encouraged to check out the new website. More visibility may bring more division members. Only 37% of new ACS members select a technical division.
- c. Division officers received an e-mail from Dr. George Bodner, Chair of the ACS Board Committee on Grants & Awards, asking them to consider nominating industry people and women to better reflect ACS membership.
- d. AGRO received a "Salute to Excellence" plaque for supporting 2014-2015 Presidential theme in our programming.
- e. As chair of DAC, Rod is working on improving inter-divisional and international cooperation. He is interested in a toolkit and training for membership chairs to better recruit and market their division. eRosters will be formatted to enable more sorting options. There will be a new formula for providing funds to divisions based on programming. Most divisions don't know how to act as a business, and would benefit from tools and information that will be provided to certain divisions (including AGRO) on a pilot program.

- f. MPPG themes for 2017-2019 were announced. On Wednesday, August 24, there will be a Town Hall Meeting to consider whether ACS should continue Thursday programming. Rod will suggest that ACS consider not programming on Sunday. Attendance on Thursday for most divisions is dwindling. 18 divisions requested exemptions for Thursday programming. The meeting schedule is also being considered, including going to a once per year format for ACS, but not before 2020. Rod will relay AGRO's experience in that the number of papers is larger now that we only programmed 1x/year. Many divisions are very large and diverse, and it would be difficult for them to program only once per year.  
**ACTION:** All AGRO members are asked to bring input on divisional matters to DAC via Rod.

**13. Awards Committee – Jim Seiber**

- a. See page 5 of the *PICOGRAM* for full report. Awards are a great way for AGRO members to be recognized by ACS. Aldos Barefoot will be recipient of 2016 ACS Fellow Award, and attendees congratulated AI on his accomplishments. 2016 AGRO award winners will present their research on Tuesday: Yoshi Ozoe (International Award); Thomas Stevenson (Innovation Award), and Agnes Rimando (Spencer Award; she is the first Philipino-American to receive this award). May Berenbaum will receive the USDA-ARS Sterling Hendricks Lectureship Award; she is ctive in the future of pesticides. The IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry will go to Daniel Kunkel of the IR-4 Project. Kevin Armbrust, Del Koch, Pam Rice, and Sharon Papiernik will receive 2016 AGRO Fellow Awards. The recipients of the JAFc Lectureship Award are Gunda Thöming and Shenming Sang. NIA finalists are Aaron Gross, Anna Maria Valez, and Anson Main; each NIA finalist will receive a reimbursement of travel expenses in the amount of \$1275. The 2017 International Award will go to Jeff Bloomquist, nominated by John Clark, who is organizing the symposium.

- b. Instructions and deadlines for award nominations are in the *PICOGRAM*. The Vice Chair is responsible for ensuring nominations of 2 AGRO members for ACS Fellow.

**14. Communications (Newsletter Editor) – Cathleen Hapeman**

The *PICOGRAM* is important for AGRO branding. Cathleen notified attendees that she can embargo sensitive information, so please send her content with specific notations as pertinent.

**15. Development (Public Relations) – Scott Jackson**

AGRO is grateful to Luis Ruzo, who donated approximately \$11K to AGRO. The ECYART program was to bring Peruvian students to the US for training in 2016, but that fell through, so the funds were released to AGRO for other uses. See sponsorship table.

**16. Early Career Scientist (Education) – Diana Aga, Marja Koivunen**

- a. Twenty-four applications for travel grants were received by the deadline. Unlike previous years, advanced grad students with an oral presentation were also eligible for the travel awards. Based on the extended abstracts and letters of recommendation, 21 applicants were selected to receive a \$810-travel award sponsored by Bayer Crop Science (\$600 to help with the travel and accommodation costs plus \$210 as a re-imbursement for conference registration cost). The amount of travel funds awarded to 16 posters and 5 oral presentations this year totals \$17,010.
- b. Review of the applications was based on short poster abstracts, extended abstracts and letters of recommendation from academic advisors. Students were notified about the award decisions by email the first week of May, and they will receive their award checks at the AGRO Social (or at the student luncheon).
- c. As in the two previous years, students submitted their short abstract to a symposium closest to their field of interest. Posters are presented and judged in their appropriate sessions based on the topic area. Additionally, all student posters will be up at the Sci-Mix on Monday evening. The 1st, 2<sup>nd</sup>, and 3rd place poster competition winners will get additional cash prizes (\$300, \$200, \$100).
- d. The application process with the extended abstracts and letters of recommendation sent via email (posters@agrodiv.org) worked well. Initially, we received more travel award applications from students with oral papers than we were able to fund (the maximum percentage of oral presentation awardees was set to 25%). However, some students did not confirm their eligibility for an oral presentation beforehand (as advised in the call for abstracts), and some of them did not have their advisor's recommendation for an oral paper. Non-eligible students were given a choice to change their presentation to a poster in order to be eligible for a travel award.
- e. Paul Reibach is organizing the student luncheon this year. He reported that this year, the meal will be plated, and he has asked AGRO members representing industry, government, academia, CROs, etc., to attend and speak to the students about career paths. We are exploring the development of a mentorship program for the 2017 meeting where new attendees will be paired with more experienced attendees to help with acclimation to the meeting.

2016 Sponsorship List		
Patron	Sponsorship Category	Note
Arcadis	Gold	Symposium Plus <i>PICOGRAM</i> Sponsorship
BASF	Platinum	Innovation Award
Bayer	Platinum	Student Travel Award
Critical Path Services	Gold	<i>PICOGRAM</i> Sponsorship
Dow AgroSciences	Diamond	New Investigator Award and Symposium Sponsorship
DuPont	Platinum	International Award
EAG (ABC) Laboratories	Diamond	Webinar Sponsor plus <i>PICOGRAM</i>
En-CAS	Silver	<i>PICOGRAM</i> Sponsorship
Environmental Turf Services	Silver	<i>PICOGRAM</i> Sponsorship
Golden Pacific Laboratories	Gold	Symposium Plus <i>PICOGRAM</i> Sponsorship
Journal of Agricultural and Food Chemistry	Platinum	
Luis Ruzo	Platinum	General AGRO Sponsorship
Monsanto	Platinum	General AGRO Sponsorship
NovaSource/TKI	Gold	Symposium Sponsorship
Simulations Plus	Gold	Symposium Sponsorship
Smithers Viscient	Silver	<i>PICOGRAM</i> Sponsorship
Solomon Decisions Inc.	Gold	Symposium Sponsorship
Stone/Intrinsic	Platinum (Co-marketing)	Symposium Plus <i>PICOGRAM</i> Sponsorship
Symbiotic	Gold	<i>PICOGRAM</i> Sponsorship
Syngenta	Platinum	Division Sponsorship
USDA	Platinum	
Valent	Gold	Symposium Sponsorship
Waterborne	Silver	<i>PICOGRAM</i> Sponsorship

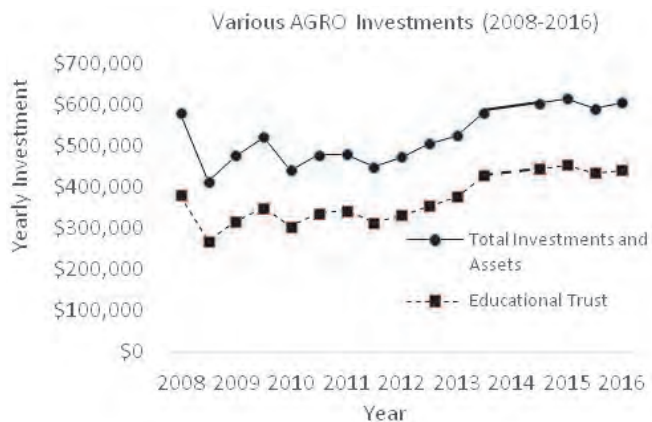
**Total Contributions for 2016: \$65,304**

**Total Contributions for 2015: \$54,000**



## 17. Finance Committee – Joel Coats

AGRO investments have nearly rebounded to 2008 levels. Funds have not been withdrawn from the Educational Trust while balances in the general fund have been sufficient to cover student and NIA awards.



## 18. International Activities Committee– Ken Racke, Jay Gan

- 5th Latin American Pesticide Residue Workshop (LAPRW), Santiago, Chile (May 2015). AGRO served as a sponsor (\$3000). About 158 papers were presented (75% were posters) at the workshop, with 335 participants from 25 countries. AGRO sponsored two poster awards. The workshop included an IUPAC-organized risk assessment workshop; 83 persons participated in this training.
- Pacificchem 2015, Honolulu, Hawaii (Dec. 2015). The International Chemical Congress of Pacific Basin Societies. Attendance was approximately 15,500. Three symposia were co-organized by AGRO members as part of the “Agrochemistry, Environmental Chemistry, and Geochemistry” main topic.
- AGRO Programming at ACS National Meeting in Philadelphia, USA (Aug-2016). Presentation of the IUPAC Award for Advances in Harmonized Approaches to Crop Protection Chemistry to Dr. Daniel L. Kunkel.
- 6th Latin American Pesticide Residue Workshop, 14-17 May 2017, San Jose, Costa Rica. AGRO will be sponsoring poster awards (\$1000). See <http://laprw2017.fundacionucr.ac.cr>
- Peru Distinguished Lecture Series is discontinued.
- 14th IUPAC International Congress of Pesticide Chemistry, 2019 or 2020. Was originally planned for Rio de Janeiro, Brazil, in 2018. Now seeking a new organizer and location.
- Pacificchem 2020, Honolulu, Hawaii (Dec. 2020). AGRO is planning a major involvement with Pacificchem in lieu of the old “Pan-Pacific Pesticide Conference.” Draft symposium proposals to be developed by 2017

## 19. Membership Committee – Steve Lehotay

As of July 31, there were 1838 AGRO members. Membership is 600+ relative to pre-IUPAC. 607 AGRO members are Division Affiliates.

## 20. Webmaster – Laura McConnell

- The AGRO website is now mobile friendly. The main awards page has been streamlined. Each award now has its own page with nomination form, current winner and previous winners with links to the announcement page and webinar (if

applicable). The webinar page has been re-organized to easily see all the webinars from each year.

- The webinar committee includes Julie Eble, Steve Duke, John Clark, Laura McConnell and Cody Howard. Webinar production is sponsored by EAG Labs (formerly ABC) with technical support from Sawyer Webworks. Cost is approximately \$750/webinar (offset by sponsorship). All recordings are freely available on the AGRO website.
- Webinar topics are generated from committee members and from outside proposals. We have reports for 10 of the 12 webinars presented so far, for which registration has ranged from 50 to >230 and attendance has ranged from 28 to >150. The most popular topics are bees/pollinators, endangered species, and analytical topics. The organizers note that registration and attendance is better if titles are simple and not too technical. The webinar committee wants to improve marketing in advance of webinars, provide joint webinars with other divisions and organizations to improve outreach and visibility, and link webinars to important AGRO publications/reports. Question whether archived webinars could be over-dubbed into Spanish and/or Chinese to increase the value of the programming. This would be difficult but the option is available.

## 21. IPG Updates – Daniel Swale, Lacey Jenson

Neither Daniel nor Lacey were in attendance, so Aaron Gross provided a brief summary. The IPG supported 2 symposia in 2016, one focused on environmental and one on insects. The IPG was intended to jump-start the early career symposium. These are going well and there is interest in maintaining this type of programming in AGRO. **MOTION:** AGRO will sponsor up to 2 early career symposia for 2017 with a budget of \$3K each. Passed. Within the discussion, the Development Committee speculated that a sponsor will be very excited about this initiative; they will be approached for sponsorship.

## 22. 2017 National Meeting– Scott Jackson

Washington DC is a good location. Symposium ideas should be sent to Scott. Blues & Brews is Tuesday evening; bring ideas for symposia.

## 23. Comments from Attendees

- John Johnston is current chair of Chemists with Disabilities. (This is a 4-year stint.) He asks that if you know of a disabled scientist who wishes to present/attend at ACS but cannot afford it, the society has resources to assist with travel expenses.
- Members from the Western Regional meeting ask that AGRO members consider presenting or organizing a symposium. The Western Regional should be larger than average because of 2016 (Philadelphia) and 2017 (Washington DC) meetings being on the East Coast.
- 2019 is the 100<sup>th</sup> anniversary of IUPAC. AGRO should consider planning/participating in collaborative activities with IUPAC.

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# AGRO Division Conference Call

## Tuesday, November 29, 2016,

### 1 PM ET

### Minutes

Sharon Papiernik, Secretary

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#### ATTENDANCE

*Officers:* Jay Gan, Chair; Julie Eble, Vice Chair; Cathleen Hapeman, Pam Rice, Past Chair; Del Koch, Treasurer; Sharon Papiernik, Secretary; Rodney Bennett, Councilor  
*Executive Committee Members (EC):* John Beck, Cheryl Cleveland, Heidi Irrig, Leah Riter, Amy Ritter, Tom Sparks, Thomas Stevenson  
*Committee Chairs:* Cathleen Hapeman, Steve Lehotay, Laura McConnell

Review/approval of AGRO Strategic Planning final report prepared October 22, 2106

1. AGRO Vision Statement (page 6 of report): **Fostering sustainable agriculture and protecting public health through chemistry.**
  - a. Discussion about whether or not to include/specify *public health*: is this a major activity of AGRO members (emerging, ex. Zika virus); is it duplicative with other Divisions (no, AGRO's approach is unique); it could attract new members to AGRO; it could ease the way for more programming on this topic within AGRO.
  - b. Motion to approve the vision statement as written passed through voice vote.
2. AGRO Mission Statement (page 6 of report): **Bringing together a worldwide community of scientists and stakeholders to advance knowledge and promote innovative solutions for the protection of agricultural productivity, public health, and environment.**
  - a. Discussion of whether or not to include/specify *worldwide*: Does this conflict with the intention of the ACS (no, ACS considers itself a worldwide organization and supports efforts to increase the global reach); AGRO is a leader in international activities, and thus, this is not an unreasonable mission.
  - b. Motion to approve the mission statement as written passed through voice vote.
3. Goals (page 11 of Strategic Planning Retreat Report). These were discussed in the context of the strategies identified for each goal. General discussion: It was recognized that at the strategic planning meeting, goals were discussed as stretch goals and that where timelines were specified, these should be considered optimistic but reasonable. The overall management of goals and strategies is placed within the authority of the chair/chair succession. AGRO should keep the strategic plan in the forefront by providing annual updates on how we met/didn't meet our goals (for example, on the website).

**ACTION:** Ideas/comments should be sent to Julie Eble, Ashli Brown-Johnson, and Jay Gan.

- Goal 1: Increase AGRO's outreach to the scientific and public communities Impact=H, Resources=M-H (page 15 of report)
- i. Strategy G1-S1: Design an outreach/partnership committee by Q1 2017 to develop liaisons with other scientific divisions in ACS and other scientific societies/organizations.
  - ii. Strategy G1-S2: Establish relationships with other organizations within one year leading to nine symposia in the next three years including two other organizations in the US, three international, and 4 with other ACS divisions. [Coordinate with G3-S3]
  - iii. Strategy G1-S3: Extend public awareness of AGRO issues through four targeted press releases per year by working with the ACS press office and developed presentations for AGRO to share by August 2017.
  - iv. Discussion: the Program Chair should be aware of goals/strategies regarding co-programming and should use them as guidance in seeking co-sponsorship of programming; programming champions should refer to Rod Bennett for DAC resources; many AGRO members are active in other organizations whose missions relate to AGRO's, and their help should be elicited to increase the effectiveness of Goal 1; an announcement sent via AGRO e-mail and posted on the website may help increase awareness.
  - v. Motion to accept Goal 1 and its 3 Strategies as written was passed by voice vote.

- Goal 2: Attract and retain an increasingly diverse and engaged membership by creating tangible benefits and opportunities to advance the AGRO mission. Impact=H, Resources=M (page 16 of report)
- i. Strategy G2-S1: Clearly define and communicate membership and participation benefits via creating an AGRO poster, presentation, and advertisement by August 2017. [Impact, H; Resources, M]
  - ii. Strategy G2-S2: Conduct an on-line membership engagement survey and create a feedback mechanism on the website to enable a volunteer coordinator to link people with opportunities by August 2017. [Impact, H; Resources, M]
  - iii. Strategy G2-S3: The membership committee will create an incentive and recognition program and communication strategy to promote engagement by new and current AGRO volunteers by August 2018.
  - iv. Discussion: To make volunteers most effective, get and keep members engaged, and coordinate their activities may require a paid volunteer coordinator (similar to Peney Patton's relationship for AGRO administration). The specifics of such a request would need to be developed for future consideration. ACS can provide information on the demographics of AGRO membership but this is of limited utility because of the lack of detailed responses with registration information. ACS can run a survey for AGRO.
  - v. Motion to accept Goal 2 and its 3 Strategies as written was passed by voice vote.

Goal 3: To provide strategic multi-year programming that advances the AGRO mission. Impact=H, Resources=M/H (page 17 of report)

- i. Strategy G3-S1: Design and launch a program committee by the end of Q2 2017 to implement a plan for the 2018 national meeting that develops a multiyear programming approach that maintains the AGRO division culture and includes webinars and electronic options for both national and regional meetings.
  - ii. Strategy G3-S2: Update symposia topic list to evaluate past programming performance in order to aid program design committee in planning future meetings by the end of March 2017.
  - iii. Strategy G3-S3: By end of 2017, partner with two other organizations, divisions, or societies to bring in Hot Topics and educational (e.g., workshops, short courses) programming to increase membership (additional cosponsors in future years). [Coordinate with G1-S2]
  - iv. Discussion: AGRO should reinstate topic coordinators, refresh the list of programming champions, and re-engage the membership to broaden and strengthen programming.
  - v. Motion to accept Goal 3 and its 3 Strategies as written was passed by voice vote.
4. Co-sponsorship with the IUPAC Division of Chemistry and the Environment of 3 symposia to be organized at the World Chemistry Congress on Environmental and Agrochemical topics. This topic was tabled in the interest of time and may be handled via e-mail.

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## Councilor Report for the 252<sup>nd</sup> National Meeting & Exposition Philadelphia, Pennsylvania August 2016

Jeanette M. Van Emon and Rodney Bennett, Councilors

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The ACS Philadelphia meeting was successful with over 1,100 exhibitors enjoyed by an attendance of over 12,800. Your AGRO Councilors were very busy with attending the excellent AGRO programming as well as the various Committee meetings.

Councilor Rodney Bennett has been reappointed as chair of the Divisional Activities Committee, and Councilor Jeanette Van Emon has been appointed to the Meetings and Expositions Committee. These two Committees work closely together and are currently obtaining feedback from Divisions regarding the possible elimination of Thursday programming; the adjustment of national meeting planning timelines; and increasing cross-divisional cooperation for the technical program. Your comments on any of these topics can be sent to either Councilor.

AGRO was honored by ACS Immediate Past President Diane Grob Schmidt in a Salute to Excellence for AGRO's support of Presidential Programming.



AGRO Councilors Jeanette Van Emon and Rodney Bennett receive the **Salute to Excellence** for AGRO's support of Presidential Programming from ACS Immediate Past President Diane Grob Schmidt.

### Council Committee News

- The Council elected to the Council Policy Committee: Harmon B. Abrahamson, Lissa A. Dulany, Andrea B. Twiss-Brooks, and Sally B. Peters for a 2017-2019 term, Martin D. Rudd for a 2017-2018 term, and Karl S. Booksh and Ella L. Davis for the 2017 term.
- New members elected to the Committee on Nominations and Elections are: Lisa M. Balbes, Thomas H. Lane, Amber S. Hinkle, Alan M. Ehrlich, and Alan A. Hazari for a 2017-2019 term and Neil D. Jespersen for the 2017 term.
- The Council elected to the Committee on Committees: Wayne E. Jones, Jr., D. Richard Cobb, Stephanie J. Watson, Dee Ann Casteel, and Emilio X. Esposito for 2017-2019.
- On the recommendation of the Committee on Committees, the Council voted to approve the continuation of the Committee on Analytical Reagents, and the Committee on Chemical Abstracts Service, subject to confirmation by the Board of Directors.
- The Council approved a petition to amend the ACS Bylaws to extend the Unemployed Members' Dues Waiver, from the current two years to three years, subject to confirmation by the Board of Directors.

### Summary of Governance Issues, Actions, and Discussion

- The Council approved the establishment of ACS International Chemical Sciences Chapters in Greater Beijing, Southwestern China, and Iraq, subject to confirmation by the ACS Board.
- The ACS Presidential Task Force on the U.S. Employment of Chemists has been examining and considering all known influences that can impact employment in the chemical sciences. The Council discussed how to gather input and make proposed recommendations in preparation for the next report on the subject.
- The Committee on Nominations and Elections has established the Vote 20/20 Task Force, charged with examining all aspects of nominations and elections for ACS national offices, and designing an enhanced process by the year 2020. The committee welcomes ideas from all members as to how nominations and elections should be handled. Send comments to Councilor Jeanette at [vanemon.jeanette@epa.gov](mailto:vanemon.jeanette@epa.gov) or to [vote2020@acs.org](mailto:vote2020@acs.org)

- The Committee on Divisional Activities will be seeking input on changes to the Divisional Allocation Formula. A request for divisional input and some suggested modifications to the formula will be sent to all divisions. The formula recommendations will be presented to Council at the Spring 2017 National Meeting. Send comments to Councilor Rod at rodbennett@dac@gmail.com.

#### Budget and Finance

- The Society's 2016 Probable 1 Budget calls for a Net from Operations of \$17.3 million. This is \$3.9 million higher than the Approved Budget but only \$723,000 higher than 2015. Total revenues are projected to be \$528.8 million, essentially on budget, and 3.3% higher than the prior year. Total expenses are projected at \$511.5 million, which is 0.6% favorable to budget, and 3.3% higher than 2015.
- The Committee on B & F recommended funding for the Atlantic Basin Conference on Chemistry, the ChemIDP Program, and the International Student Chapter Program. All recommendations were subsequently approved by the Board.

#### Board of Directors Report

- The Board is seeking ways to engage ACS stakeholders to identify opportunities and issues for governance improvement that will enable ACS to advance its mission in a streamlined and simplified manner. A new task force will look at the Society's future governance needs and propose to Council an initiative to ensure an agile, efficient, and effective ACS.
- The Board discussed the responsibility of ACS to effectively capture the needs of industrial members and their corporations.
- The regular session of the Board featured a discussion on ACS National Meetings of the Future. Board Chair Pat Confalone opened the discussion by stating ACS National Meetings are a key way that ACS fulfills its obligation to deliver scientific information. The National Meetings are successful, but ACS is always looking for ways to improve and to anticipate the future needs of members. Your suggestions can be sent to either AGRO Councilor to be brought forward to the Board.

## 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.

# *NOTES*



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

## EMAIL NEWSLETTER

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.

## SUPPORT YOUR DIVISION!

### ADVERTISE IN THE *PICOGRAM*

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 8.5" x 11"	\$500
Half Page	16.5 cm x 11.4 cm 8.5" x 5.5"	\$300

Advertisers should submit their ad in grayscale format for the printed version. Full page advertisers may also submit a color ad for use in the on-line version.

Full page ads must be submitted as press quality resolution in grayscale, pdf format. Submission of a color version is optional. Print bleed is not needed on the grayscale or color versions.

Half-page ads should be submitted as .tiff or .jpg at press quality resolution in grayscale. 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:

Laura L. McConnell, PhD  
Bayer CropScience  
919-549-2012  
[laura.mcconnell@bayer.com](mailto:laura.mcconnell@bayer.com)

Previous issues may be viewed on the AGRO website.



# PICOGRAM V. 91

*and Program*



CHEMISTRY  
*for and from*  
AGRICULTURE

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