

PICOGRAM V. 93

AMERICAN CHEMICAL SOCIETY

Call for Papers for Boston, Massachusetts



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Patrons

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 Aerobic Mineralization in Surface Water Simulation
 Biodegradation Test
 Adsorption/Desorption
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From the Chair's Desk Scott Jackson

AGRO's vision of providing a supportive environment for professional growth through innovative programming, services and opportunities for collaboration, and exchange of information continues to drive our activities and has led us to focus on three areas that are critical to our success as a vibrant, scientific organization. Our strategic plan goals are outlines on page 60.

National Meetings. The 256th National ACS meeting in Boston, Massachusetts will be August 19 – 23, 2018 meeting. Planning is well underway, and the program looks to be one of the most diverse organized by AGRO. Julie Eble's drive and enthusiasm for working with symposium organizers has yielded a range of symposia and co-sponsored events that include core topics in pesticide science, as well as other topics of interest to scientists such as RNAi, human health, chiral chemistry, endangered species, and pollinator issues. In all, more than 35 symposia are planned with topics to keep all interested for the entire week of the meetings. **Please note: Abstracts must be submitted by March 12, 2018**.

In Fall 2019, we travel to San Diego, California, and our current Vice Chair, Cheryl Cleveland, will lead the programming. It is never too early to begin developing program ideas for future meetings. Contact Cheryl if you would like assistance in developing a symposium. Also, watch for announcements on our programbrainstorming social to be held during the Boston 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? AGRO offers special programs 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 15 and 17.

The State of AGRO. The financial health and prosperity of the AGRO Division is dependent on members stepping forward and offering their help for the common good of the division. Therefore, we continue to appreciate and look forward to the strong support we have received in the past continuing. The financial health of the AGRO Division is sound due to excellent support from our patrons, strong programming that maintains our revenue from ACS, and our special grants, as well as earnings from investments.

We are grateful to our many sponsors and patrons since you help keep our Division strong. To streamline the processes, we have added a new form to the AGRO website

http://www.agrodiv.org/sponsorship/sponsorship-registration/ where patron and sponsors can start the contact information exchange with AGRO. AGRO members can check out the sponsors tab on the web page to see our many current sponsors to whom we owe so much.

AGRO Vendor Exhibition at the Boston Meeting. As part of the ever-growing outreach and desire to serve the members of AGRO division, we have been working to bring selected vendors to the AGRO meeting venue at the national ACS meetings. This effort will not compete to the activities we are familiar with in the Exhibit Hall at each meeting, but this activity would be an addition to the national meeting activities. One of the goals for this new activity is to connect vendor and service providers more directly to the technical programming. If you are an interested vendor or service provider, we would welcome talking with you regarding sponsorship and your active participation.

Liaison Committee Opportunities. As part of our ongoing outreach program, AGRO has been working with SETAC, which has led to a joint AGRO/SETAC/ENVR partnership. Pam Rice and Steve Duke are working toward the goal of a mutually beneficial relationship between the societies. Currently AGRO has current or pending relationships with nearly 20 organizations. A few of these organizations do not have liaisons assigned, so if you have interest, please contact Steve Duke.

IUPAC 2019. It is hard to believe, but the next IUPAC meeting is just around the corner. The 14th IUPAC International Congress of Crop Protection Chemistry will be organized by Ghent University and will be held May 19-24, 2019 in Ghent, Belgium.

Dr. ir. Pieter Spanoghe, Contact Organizer Department of Crop Protection Campus Coupure, B6, Coupure Links 653 9000 Ghent, Belgium pieter.spanoghe@ugent.be +32 9 264 60 09

This meeting promises to very worthwhile. If you have interest in contributing your time and talent, it is still not too late. Details for the meeting can be found on page 63 and at www.iupac2019.be

Elections. Are you interested in serving AGRO in a more formal way? The Nominations Committee of Jay Gan, Pam Rice, and Cathleen Hapeman are currently seeking candidates to run for the 2019 Vice-Chair and for Executive Committee. Please contact the committee before May 15 (see p. 67). It is a most rewarding experience.

Staying Informed. Check out what AGRO has to offer at our website at 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. Sign up for the AGRO eNewsletter to find out the latest in AGRO news.

AGRO DIVISION FELLOWS

1971	Louis Lykken	1981	Robert M. Hollingsworth	2006	Terry D. Spittler
	Tom H. (Bucky) Harris		Gino J. Marco	2007	John M. Clark
	Herman Beckman	1983	John Harvey, Jr.		Ann T. Lemley
	(Posthumous)	1985	Henry Dishburger		R. Donald Wauchope
1972	Wendell F. (Bud) Phillips		Richard C. Honeycutt	2008	Allan S. Felsot
	Don G. Crosby	1986	Gunter (Jack) Zweig	2011	Laura L. McConnell
	Elvins Y. Spencer	1987	Willa Garner	2012	Jeffrey J. Jenkins
1973	Mr. Roger C. Blinn	1988	Jan Chambers		John J. Johnston
	Philip C. Kearney		James Seiber	2013	Stephen S. Duke
	Julius J. Menn	1990	Joseph Fenyes		Cathleen J. Hapeman
1974	Morton Beroza	1991	Nancy N. Ragsdale		Kenneth D. Racke
	James P. Minyard, Jr.	1992	Don Baker		Teresa A. Wehner
	Joe C. Street		Joel Coats	2014	Aldos C. Barefoot
1975	Hank F. Enos		Guy Paulson		Jeanette M. Van Emon
	Maurice B. Green	1993	Larry Ballantine	2016	Kevin J. Armbrust
	Charles H. Van Middelem	1994	James Heitz		Del A.Koch
1976	Marguerite L. Leng		Ralph Mumma		Sharon K. Papiernik
	Jack R. Plimmer		Willis Wheeler		Pamela J. Rice
	Gerald G. Still	1996	John Bourke	2017	Diana Aga
1977	Gustave K. (Bob) Kohn	1998	Hank Cutler		Jay Gan
1978	S. Kris Bandal		Paul Giesler		Marja Koivunen
	Paul Hedin	2000	Barry Cross		Steven J. Lehotay
1979	Rodney D. Moss	2001	Robert Hoagland		Thomas M. Stevenson
1980	G. Wayne Ivie	2003	Judd O. Nelson		
	John B. Siddall (Posthumous)	2005	Rodney Bennett		

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 J. Johnston
2011	John W. Finley		Laura L. McConnell	2016	Aldos C. Barefoot
	N. Bushan Mandava		Kenneth D. Racke	2017	Stephen O. Duke

AWARDS COMMITTEE REPORT

Jim Seiber, Chair

Stephen Powles of the University of Western Australia is the 2018 recipient of the ACS International Award for Research in Agrochemicals. He will receive this award for his research in elucidating the role of P450s in broad spectrum multiple herbicide resistance in weeds. The award will be presented at a symposium to be organized by Todd Gaines at the 256th National ACS Meeting in Boston, Massachusetts. The winner of the 2018 AGRO Award for Innovation in Chemistry of Agriculture will be announced in March. Nominations for the 2020 International Award for Research in Agrochemicals and the 2019 AGRO Award for Innovation in Chemistry of Agriculture are being sought. The nomination criteria for these awards can be found on pages 7 and 9, respectively.

The USDA-ARS Sterling Hendricks Memorial Lectureship will be given **James Seiber** of University of California, Davis at a lunch time symposium organized by Steve Duke and Kim Kaplan at the Boston ACS meeting in August 2018. This year the lectureship will be part of the AGFD program. The 2018 Kenneth A. Spencer Award will be announced in March with details concerning the award presentation to follow. Nominations for the 2019 awards are now being accepted (pp. 11 and 13).

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 2017 will be announced in early spring, both of whom will present lectures at the ACS National Meeting in Boston. The call for nominations of papers published in 2018 will be solicited from AGRO and AGFD members and from the public through the *JAFC* website beginning in late Fall 2017 (p. 14).

The 2017 winner of the AGRO New Investigator Award was **Maykel Hernández-Mesa** Laboratoire d'Etude des Résidus et Contaminants dans les Aliments" (LABERCA) in Nantes, France. He is exploring the potential of ion mobility-mass spectrometry as an innovative tool in steroidomics and is developing new strategies for the detecting steroidome disruption in livestock that has been exposed to forbidden veterinary substances. 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 2018 New Investigator Award are currently underway (p. 15).

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 2017 First and Second place and the two Third-place winners were **Zhilin Li** (Louisiana State University, Daniel Swale), **Shiyao Jiang** (University of Florida, Jeffrey Bloomquist), **Ping He** (University of Buffalo, Diana Aga), and **Lei Su** (University of Buffalo, Ning Dai), respectively. Applications for the Student Travel Awards are now being accepted (p. 17).

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



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 ACS INTERNATIONAL AWARD FOR RESEARCH IN AGROCHEMICALS

- 1969 John E. Casida, University of California-Berkley
- 1970 Richard D. O'Brien, Cornell University, Ithaca, New York
- 1971 Robert L. Metcalf, University of Illinois, Champagne-Urban
- 1972 Ralph L. Wain, Wye College, University of London, England
- 1973 Hubert Martin, British Crop Protection Council, London, England
- 1974 T. Roy Fukuto, University of California-Riverside
- 1975 Michael Elliot, Rothamsted Experimental Station, Harpenden, England
- 1976 Morton Beroza, USDA-ARS (retired), Beltsville, Maryland
- 1977 Francis A. Gunther, University of California-Riverside
- 1978 Julius J. Menn, Stauffer Chemical Co., Mountain View, California
- 1979 Milton S. Schechter, USDA-ARS (retired), Beltsville, Maryland
- 1980 Minuro Nakajima, Kyoto University, Kyoto, Japan
- 1981 Philip C. Kearney, USDA-ARS, Beltsville, Maryland
- 1982 Jack R. Plimmer, USDA-ARS, Beltsville, Maryland
- 1983 Karl Heinz Buechel, Bayer AG, Leverkusen, Germany
- 1984 Jacques Jean Martel, Roussel Uclaf, Paris, France
- 1985 Junshi Miyamoto, Sumitomo Chemical Co., Japan
- 1986 James Tumlinson, USDA-ARS, Gainesville, Florida
- 1987 Fumio Matsumura, Michigan State University, East Lansing
- 1988 Ernest Hodgson, North Carolina State University
- 1989 Toshio Narahashi, Northwestern University, Evanston, Illinois
- 1990 David Schooley, University of Nevada-Reno
- 1991 Stuart Frear, USDA-ARS, Fargo, North Dakota
- 1992 Bruce Hammock, University of California-Davis
- 1993 Morifuso Eto, Kyushu University, Fukoka, Japan
- 1994 Toshio Fujita, Kyoto University, Japan
- 1995 Mohyee Eldefrawi, University of Maryland-Baltimore Koji Nakanishi, Columbia University, New York, New York
- 1996 Günther Voss, Ciba, Basel, Switzerland Klaus Naumann, Bayer AG, Leverkusen, Germany
- 1997 Fritz Führ, Institute of Chemistry and Dynamic, Jülich, Germany
- Izuru Yamamoto, University of Tokyo, Japan
- 1998 George Levitt, DuPont, Wilmington, Delaware Leslie Crombie, University of Nottingham, England

- 1999 Don Baker, Zeneca, Richmond, California James Seiber, University of Nevada-Reno
- 2000 George P. Georghiou, University of California-Riverside 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
- 2003 Bob Hollingworth, Michigan State University, East Lansing Hideo Ohkawa, Kobe University, Japan
- 2004 Stephen Duke, USDA-ARS, Oxford, Mississippi John Marshall Clark, University of Massachusetts-Amherst
- 2005 Robert Krieger, University of California-Riverside Janice E. Chambers, Mississippi State University, Starkville
- 2006 Joel Coats, Iowa State University, Ames Isamu Yamaguchi, Agricultural Chemicals Inspection Station, Tokyo, Japan
- 2007 Gerald T. Brooks, University of Sussex (retired), Brighton, United Kingdom
 - Fredrick J. Perlak, Monsanto, St. Louis, Missouri
- 2008 David M. Soderlund, Cornell University, Ithaca, New York
- 2009 R. Donald Wauchope, USDA-ARS (retired), Tifton, Georgia
- 2010 Shinzo Kagabu, Gifu University, Gifu, Japan
- 2011 George P. Lahm, DuPont Crop Science, Newark, Delaware
- 2012 Thomas C. Sparks, Dow AgroSciences, Indianapolis, Indiana
- 2013 René Feyereisen, National Institute of Agronomic Research (INRA), France
- 2014 Ralf Nauen, Bayer CropScience, Monheim, Germany
- 2015 Keith D. Wing, formerly of Rohm and Haas and DuPont Crop Protection, Wilmington, Delaware
- 2016 Yoshihisa Ozoe, Shimane University, Japan
- 2017 Jeffrey Bloomquist, University of Florida, Gainesville
- 2018 Stephen Powles, University of Western Australia

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2020 Fall ACS National Meeting in San Francisco, 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 2020 Fall National ACS Meeting in honor of the awardee.

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

2019 Fall ACS National Meeting in San Diego, California

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 258th National ACS Meeting in August 2019 in San Diego, California.

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
- 2017 Qing X. Li, Universtiy of Hawai'i, Mānoa, Hawai'i



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United States Department of Agriculture

Agricultural Research Service

CALL FOR NOMINATIONS 2019 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 **December 14, 2018**.

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 258th American Chemical Society National Meeting held in 2019 in San Diego, California, 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
- 1982 Warren L. Butler, University of California, San Diego
- 1983 Melvin Calvin, Nobel Laureate, University of California, Berkeley
- 1984 Frederick Ausubel, Harvard Medical School, Boston, Massachusetts
- 1985 Alan Putnam, Michigan State University, East Lansing
- 1986 Ralph Hardy, Cornell University and BioTechnica International, Ithaca, New York
- 1987 Mary-Dell Chilton, Ciba-Geigy Corporation, Research Triangle Park, North Carolina
- 1988 Bruce N. Ames, University of California, Berkeley
- 1989 Sanford A. Miller, University of Texas Health Science Center at San Antonio, Texas
- 1990 Roy L. Whistle, Purdue University, West Lafayette, Indiana
- 1991 Peter S. Eagleson, Massachusetts Institute of Technology, Cambridge
- 1992 John E. Casida, University of California-Berkeley
- 1993 Philip H. Abelson, Deputy Editor, *Science*, and Scientific Advisor to AAAS, Washington, DC
- 1994 Wendell L. Roelofs, Cornell University, Ithaca, New York
- 1995 Winslow R. Briggs, Carnegie Institution of Washington, Stanford, California
- 1996 Hugh D. Sisler, University of Maryland, College Park
- 1997 Ernest Hodgson, North Carolina State University, Raleigh
- 1998 Morton Beroza, USDA-ARS (retired), Beltsville, Maryland
- 1999 Bruce D. Hammock, University of California, Davis

- 2000 William S. Bowers, University of Arizona, Tuscon
- 2001 Malcolm Thompson, USDA-ARS (retired), Beltsville, Maryland
- 2002 Irvin E. Liener, University of Minnesota, St. Paul
- 2003 Kriton Kleanthis Hatzios, Virginia Polytechnic Institute and State University, Blacksburg
- 2004 Robert L. Buchanan, Food and Drug Administration, College Park, Maryland
- 2005 Donald L. Sparks, University of Delaware, Newark
- 2006 Stanley B. Prusiner, Nobel Laureate, University of California, San Francisco
- 2007 Bruce E. Dale, Michigan State University, East Lansing
- 2008 Fergus M. Clydesdale, University of Massachusetts-Amherst
- 2009 Charles J. Arntzen, Arizona State University, Tempe
- 2010 Chris Somerville, Director of the Energy Biosciences Institute, Berkeley, California
- 2011 Deborah P. Delmer, University of California, Davis
- 2012 Eric Block, University at Albany, State University of New York
- 2013 Keith Solomon, University of Guelph, Canada
- 2014 Robert T. Fraley, Monsanto, Company, St. Louis, Missouri
- 2015 James H. Tumlinson, Penn State, University Park
- 2016 May R. Berenbaum, University of Illinois, Urbana-Champaign
- 2017 John A. Pickett, Rothamsted Research, United Kingdom
- 2018 James N. Seiber, University of California, Davis



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CALL FOR NOMINATIONS 2019 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/Spencer Award.html

Send nomination by November 15, 2018, 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

1987

1988

- 1955 Ralph M. Hixon, Iowa State University 1956 Conrad A. Elvehjem, University of Wisconsin 1957 William C. Rose, University of Wisconsin 1958 E.V. McCollum, Johns Hopkins University 1959 Karl Folkers, Merck, Sharpe & Dohme Res. Labs. 1960 C.H. Bailey, University of Minnesota 1961 H.L. Haller, USDA-Agricultural Research Service 1962 A.K. Balls, USDA-Agricultural Research Service 1963 C.C. King, Rockefeller Foundation 1964 Daniel Swern, Temple University
- 1965 Aaron M. Altschul, USDA-Agricultural Research Service
- 1966 Robert L. Metcalf University of California, Riverside
- 1967 Melville L. Wolfrom, The Ohio State University
- 1968 Herbert E. Carter, University of Illinois
- 1969 Edwin T. Mertz, Purdue University
- 1970 Lyle D. Goodhue, Phillips Petroleum Company
- 1971 William J. Darby, Vanderbilt University
- 1972 Emil M. Mrak, University of California, Davis
- 1973 Esmond E. Snell, University of California, Berkeley
- 1974 Roy L. Whistler, Purdue University
- 1975 Thomas H. Jukes, University of California, Berkeley
- 1976 E. Irvine Liener, University of Minnesota
- 1977 N. Edward Tolbert, Michigan State University
- 1978 John E. Casida, University of California, Berkley
- 1979 Charles W. Gehrke, University of Missouri, Columbia
- 1980 George K. Davis, University of Florida, Gainesville1981 John Speziale, Monsanto Agricultural Products Co.
- Howard Bachrach, USDA-Agricultural Research Service
- 1983 Peter Albersheim, University of Colorado
- 1984 Richard H. Hageman, University of Illinois
- 1985 Bruce N. Ames, University of California, Berkeley
- 1986 John M. Brenner, Iowa State University

1989 Robert H. Burris, University of Wisconsin
1990 John E. Kinsella, University of California, Davis
1991 George Levitt, DuPont Experimental Station
1992 Clarence A. Ryan, Jr., Washington State University

Hector F. DeLuca, University of Wisconsin, Madison

Boyd L. O'Dell, University of Missouri, Columbia

- 1993Bruce Hammock, University of California, Davis
- 1994 William S. Bowers, University of Arizona
- 1995 Robert T. Fraley, Ceregen, A Unit of Monsanto Co.
- 1996 James N. BeMiller, Purdue University
- 1997 William M. Doane, USDA-Agricultural Research Service
- 1998 Mendel Friedman USDA-Agricultural Research Service
- 1999 James A. Sikorski, Monsanto Co.
- 2000 Wendell L. Roelofs, Cornell University
- 2001 James Tumlinson USDA-Agricultural Research Service
- 2002 Daniel W. Armstrong, Iowa State University
- 2003 Eric Block, University at Albany, State Univ. New York
- 2004 Steven D. Aust, Utah State University
- 2005 Don R. Baker, Berkeley Discovery Inc.
- 2006 Russell Molyneux, USDA-Agricultural Research Service
- 2007 David A. Schooley, University of Nevada, Reno
- 2008 Ron G. Buttery, USDA-Agricultural Research Service
- 2009 George P. Lahm, DuPont Crop Protection
- 2010 Clive A. Henrick, Trece, Inc.
- 2011 Michael W. Pariza, University of Wisconsin, Madison
- 2012 James N. Seiber, University of California, Davis
- 2013 Attila Pavlath, USDA-Agricultural Research Service, ret.
- 2014 Ronald Horst, USDA-Agricultural Research Service, ret.
- 2015 Thomas Selby, DuPont Crop Protection
- 2016 Agnes Rimando, USDA-Agricultural Research Service
- 2017 Bruce German, University of California, Davis

AGRICULTURAL AND FOOD CHEMISTRY

CALL FOR NOMINATIONS 2019 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 2018 (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 2019 ACS National Meeting in San Diego, California

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 2019, and the award will be presented at the Fall 2019 ACS National Meeting held in August in San Diego, California.

Send your nominations to jafcaward@acs.org

Deadline for nominations December 31, 2018



2018 Fall ACS National Meeting in Boston, Massachusetts

The AGRO Division seeks nominations for the New Investigator Award (NIA) to be awarded at the ACS meeting in Boston, Massachusetts, August 19-23, 2018. The purpose of the New Investigator Award is to recognize scientists who have obtained a doctoral degree and are actively conducting academic, industrial, consulting, or regulatory studies.

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

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 2018, applications will be considered from *scientists who have obtained their doctorates no earlier than the year 2013.*
- A panel consisting of at least three AGRO members will chose up to three finalists based on their extended abstracts, 1-page *curriculum 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.

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.

To Apply for the New Investigator Award:

- Submit a **300-word abstract** to a symposium by March 12, 2018, in the AGRO Division using the ACS Meeting Abstracts Programming at *http://maps.acs.org/*
- 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 256th ACS National Meeting in Boston, Massachusetts.

Deadline:

The extended abstract, *curriculum vitae*, and letter(s) must be received by the New Investigator Award (NIA) Coordinator no later than **March 12, 2018**.

For more information, please contact: Steven J. Lehotay, NIA Coordinator USDA-Agricultural Research Service steven.lehotay@ars.usda.gov

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



2017 Student Poster Winners:



First and Second place and the two Third-place winners were (left to right) – 3rd place **Ping He** (University of Buffalo, Diana Aga), 1st place **Zhilin Li** (Louisiana State University, Daniel Swale), 2nd place **Shiyao Jiang** (University of Florida, Jeffrey Bloomquist), and 3rd place **Lei Su** (University of Buffalo, Ning Dai).



2017 AGRO Student Travel Award Winners: (left to right) Edmund Norris, Colin Wong, Rui Chen, Zhilin Li, Ping He, Scott O'Neal, Lei Su, Shiyao Jiang, Tittaya Boontongto, Nick Larson, Niranjana Krishnan, Jerod Hurst, Emily Wall, Zijiang Yang, and Qi Yao.





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UNDERGRADUATE & GRADUATE STUDENT RESEARCH Travel Support for Student Posters and Senior Grad Student Oral Presentations

2018 Fall ACS National Meeting in Boston, Massachusetts

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 2018 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 256th ACS Fall National Meeting, which will be held in August 2018 in Boston, Massachusetts. 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 To apply, students should submit the following no later than March 12, 2018:

 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.

- 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 posters@agrodiv.org with the abstract number in the email subject line.

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

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

Abstracts will be reviewed by the Education Committee. Applicants will be notified of their selection status in May 2018.

Special thanks to our sponsor for their generous contribution!





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Our services at a glance:

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- Pollinator risk assessment
- Mammalian toxicology
- Human and dietary safety
- Label preparation and amendments
- Tolerance & MRL assessments
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Notes from the Program Chair Julie Eble

The AGRO program 256th National ACS Meeting and Exposition in Boston, Massachusetts, will be held August 19-23, 2018, and promises to be another exciting program. We have over 35 proposed symposia organized by many scientists representing academia, government, and private sectors. As in previous years, AGRO will be hosting many oral symposia this year, so the General Session, *Protection of Agricultural Productivity, Public Health, and the Environment,* will be posters only. I thank all our dedicated and enthusiastic symposia organizers for their expertise, time, and effort in leading this delightful scientific exchange.

Awards. While in Boston, we will recognize the significant achievements of our colleagues in agrochemical research. This includes the ACS International Award for Research in Agrochemicals to be awarded to **Stephen Powles** in a symposium organized by Todd Gaines and the ACS Industrial Chemistry Award to be awarded to **George Lahm** in a symposium organized by Thomas Stevenson. In addition, on Tuesday **James Seiber** will present the USDA-ARS Sterling Hendricks Memorial Lectureship in a lunch symposium hosted by AGFD Division and co-sponsored by AGRO. The award winners for the 2018 AGRO Innovation Award and the *Journal of Agricultural and Food Chemistry* Best Paper Award, and the Kenneth A. Spencer Award for Outstanding Achievement in Agricultural and Food Chemistry will be announced shortly in early spring.

INSTAR Summit. During the 15th International Congress of Entomology in Orlando, Florida, last year, Jeffrey Bloomquist organized a workshop to discuss issues associated with the development of new insecticides along with the successes and failures of current resistance management strategies. From this workshop, the INSTAR (<u>INS</u>ecticide <u>TARgets</u>) group was formed. In Boston, AGRO will host the first annual INSecticide TARgets Summit to provide a venue where academic, industry, and government scientists can freely discuss advances in the field and exchange ideas, fostering mutually-beneficial collaborations. This summit is tentatively scheduled for Sunday.

Student and Early Career Scientist Opportunities. Diana Aga and Marja Koivunen are organizing the AGRO Education Awards, and Steven Lehotay the AGRO New Investigator Award (NIA) Competition. The NIA finalists will be preselected from the applications. Both Student Travel Award winners (poster and oral presentations) and the NIA finalists will present in the symposia of their choice; all will receive travel grants (pp. 15 and 17). This year AGRO will again sponsor an **Early Career Scientist Symposium**. The goal is to allow new scientists to highlight their early achievements and to interact and form new collaborations that we hope will last for many years. Harika Adusumilli and Amanda Chen are organizing a symposium entitled, *Environmental Study Design: Current and Emerging Guidelines*.

Scientific Organization Liaison Committee. One of the goals of AGRO's latest Strategic Plan was to establish a committee to increase communication and programming between AGRO and other scientific societies/organizations with common interests. While this fledgling committee led by Steve Duke is largely focused on 2019 programming, AGRO will collaboratively sponsor with SETAC two symposia programmed by the ENVR Division this year in Boston. These symposia focus on environmental fate of contaminants in waters, soils, and foods and promise to be a great kick off for many additional interactions with organizations who have similar AGRO interests.

Vendor Interface Program. Another initiative in Boston is an event designed to allow AGRO members and AGRO-centered vendors to interact in a face-to-face setting. Cheryl Cleveland, our Vice-Chair and Programming Committee Chair, is working with a small team to design a session just ahead of the ever-popular Blues and Brews (p. 59).

Programming in New Orleans. AGRO does not program at the Spring ACS National Meeting, but we often co-sponsor symposia. Check out the AGRO co-sponsored symposia in AFGD and ENVR Division programming at the 255th National ACS Meeting and Exposition in New Orleans (p. 20).

AGRO Programming Support. Finally, we continue to rely on the expertise of Peney Patton (ppatton@agrodiv.org), Program Secretariat for AGRO, CELL, and ENVR. Thank you, Peney, for all your help in making our programs since 2014 very successful!

See you in Boston!

***** PLEASE NOTE *****

All abstracts must be 300 words or less (figures = 70 words) and must be submitted on-line http://maps.acs.org January 15, 2018 - March 12, 2018



255th ACS National Meeting and Exhibition New Orleans, Louisiana March 18 – 22, 2018 AGRO Co-Sponsored Programming in the AGFD and ENVR Division

Nexus of Food, Energy and Water

AGFD Division

2017 Kenneth A. Spencer Award for Outstanding Achievement in Agricultural and Food Chemistry. Bruce German, Recent milk genomics research and the discovery of probiotic carbohydrate constituents. *Tuesday, Mar 20, 10:10 AM Room 217, Ernest N. Morial Convention Center*

ENVR Division

Accurate Mass/High Resolution Mass Spectrometry for Environmental Monitoring and Remediation Organizers: Tarun Anumol, Ruth Marfil-Vega, Thomas Young,

Christaun Zwiener

This session will focus on the use of high resolution mass spectrometry and its application for analysis of occurrence and fate of organic contaminants in the environment. The enormous amounts of data produced by these techniques necessitate improved schemes for prioritizing compounds for further investigation.

Wednesday, Mar 21, 8:00 AM - 12:00 PM, 1:30 PM - 5:30 PM Thursday, Mar 22, 8:00 AM - 12:00 PM, 1:00 PM - 5:00 PM Room 350, Ernest N. Morial Convention Center

Agro-Environmental and Energy Applications of Biochar/Hydrochar

Organizers: Nichol Berge, Changyoon Jeong, Kyoung Ro

Various biochars/hydrochars made from both dry and wet pyrolysis of plant-based biomass and animal manures have shown remarkable potential in remediating contaminated soil, reducing nutrients leaching from soil, storing energy, and removing various environmental pollutants from water and air. The proposed symposium will provide a platform for researchers from diverse disciplines ranging from chemists, material and chemical engineers, to agricultural, energy, and soil scientists to present and discuss recent discoveries and development in agroenvironmental and energy applications of biochar/hydrochar technology driven by both fundamental research and applied technology. Companies in biochar/hydrochar

production/application, waste and wastewater treatment as well as those in the agricultural, environmental, and energy industries with feasibility studies or full-scale technological applications are also invited to present their experiences.

Sunday, Mar 18, 8:00 AM - 11:50 AM, 1:30 PM - 5:20 PM Monday, Mar 19, 8:00 AM - 12:00 PM Room 350, Ernest N. Morial Convention Center

Approaches to Fill Data Gaps for Chemical Sources of Risk Organizers: Chantel Nicolas, Katherine Philips

This session invites papers that present novel processes for filling gaps in information that is necessary for chemical risk prioritization. The session organizers also encourage papers that deal with making these data publicly accessible. Wednesday, Mar 21, 8:00 AM - 11:55 AM Room 351, Ernest N. Morial Convention Center

Great Achievements in Environmental Science and Technology

Organizers: Nicole Barsamian, Bruce Logan, David Sedlak

The ACS Publications journals, Environmental Science and Technology and Environmental Science and Technology Letters, celebrate great achievements in all areas of environmental science and technology. Join us to honor the winner of the 2018 James J. Morgan ES&T Early Career Award Lectureship, as well as winners of the 2016 Best Paper awards from the two journals. Learn about research advances from the labs of our esteemed Associate Editors.

Tuesday, Mar 20, 8:30 AM - 12:00 PM Room 342, Ernest N. Morial Convention Center

Science and its Perception: Climate Change, Nicotine, Pollution and Other Emerging Topics in the Crosshair Organizers: Sherine Obare, Elke Schoffers

The purpose of this interdisciplinary symposium is to bring together scholars, policy makers, as well as physical and social scientists to discuss challenges and share solutions related to emerging science topics that have recently been under attack in the public sphere. These topics include but are not limited to climate change, nicotine, agriculture, pollution, and food additives. Presentations may also incorporate issues at the food, energy, and water nexus and their impact on our planet. *Wednesday, Mar 20, 1:30 PM - 5:25 PM Room 346, Ernest N. Morial Convention Center*



List of AGRO Symposia by Topic Area 256th ACS National Meeting and Exposition August 19-23, 2018, Boston, Massachusetts, USA *Nanoscience, Nanotechnology, and Beyond*

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 AGROs general poster session.

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

- Analytical Methods for Pesticide Residues in Pollinator Studies: Beyond Neonicotinoids
- Chiral Agrochemicals: Analytical Advances and Regulatory Trends
- Early Phase Environmental Fate and Metabolism Studies
- New Analytical Technologies for Pesticide Analysis
- Uses of LC-Mass Spectrometry in Agricultural Research and Development - New Trends and Best Practices

Agricultural Biotechnology

RNAi and Gene Editing - Utilization for Enhanced Crop
Production

Agrochemical Toxicology and Mode of Action

- INSecticide TARgets (INSTAR) Summit
- Role of P450s in Broad-Spectrum Multiple Herbicide Resistance in Weeds: ACS International Award for Research in Agrochemicals - Stephen Powles

Air Quality and Agriculture

- Atmospheric Fate and Transport of Volatilized Agricultural Emissions
- Pesticide Spray Drift: Application, Evaluation, and Mitigation
- Biorationale Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture

• Agricultural Based Natural Products as Biorational Pesticides **Discovery and Synthesis**

• Synthesis and Chemistry of Agrochemicals: ACS Industrial Chemistry Award Symposium in Honor of George P. Lahm

Ecosystem and Human Health/Exposure and Risk

- Assessment
 Assessing Risk, Providing Benefit: Making Informed Decisions in Endangered Species Pesticide Risk Management
- Challenges of Utilizing Higher-Tier Ecotoxicity Data in Risk
 Assessment and Risk Management of Pesticides
- Role of Monitoring Data in Advancing Regulatory Risk
 Assessment
- Reducing Uncertainty in Modeling the Environmental and Human Health Exposure to Agrochemicals

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

- Environmental Fate Data Creation: Contract Research, Regulatory Compliance, and Challenges
- Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Environmental Study Design: Current and Emerging Guidelines
- Higher-Tier Fate and Metabolism Study Design to Address
 Potential Regulatory Issues

- Non-Extractable Residue (NER) Bio-Accessibility and Potential Risks
- Strategies for Radiolabeling Agrochemicals in Regulatory Studies and Advanced Techniques for Characterization
- Structure-Stability Relationship of Xenobiotics
- Formulations, Process Chemistry and Application Technology
- Analytical Topics for Ag Process Chemistry and Formulations Research
- Process Research and Development in Crop Protection
- Surfactant and Colloid Science as Applied to Agrochemical Formulations

General Session

- Protection of Agricultural Productivity, Public Health, and the Environment
- Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial, and Worker Protection Products
- Vector-Borne Diseases: Role of Chemistry in Managing Risks to Humans, Domestics Animals, Aquaculture, and Wildlife

Human Exposure, Health, and Risk Management

- How Can Advances in Chemistry Improve Human Health Exposure Assessment?
- Innovations in Chemistry Supporting Strategic Human Health Risk Assessments

Pesticides, Pollinators, and Non-target Arthropods

• Designing Better Studies: Issues and Improvements in Pollinator Studies

Regulations, Harmonization, and MRLs

- Around the World with Pesticide Maximum Residue Levels
- Joint Reviews for New Pesticides: Success Stories, Challenges and Future Prospects

Science Communication

• Risk Assessment, Management, and Communication (Lost in Translation)

Special Topics

- Good Laboratory Practices for the Agrochemical Professional
- Legal Aspects of Agriculture, Agrochemicals, and Agribusiness
- Pesticides and Chemophobia in the News: What You Need to Know as a Scientist and Consumer

Awards Co-sponsored with AGFD and Others

- USDA-ARS Sterling Hendricks Memorial Lectureship Award: James Seiber
- Kansas City Division 2018 Kenneth A. Spencer Award for Outstanding Achievement in Agricultural and Food Chemistry
- Journal of Agriculture and Food Chemistry 2018 Article of the Year Award



Agricultural Based Natural Products as Biorational Pesticides

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 from agriculturally-based sources as biorational pesticides. Talks will focus on the isolation of and applied use of natural products from and for agricultural systems. Chemical ecologists, chemists, biocontrol scientists, entomologists, and plant physiologists will benefit from the presentations. ACS members from AGFD, ANYL, BIOT, BIOL, and ENVR 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

John J. Beck, USDA-ARS, 352-374-5730, john.beck@ars.usda.gov Caitlin C. Rering, USDA-ARS, 352-374-5722, caitlin.rering@ars.usda.gov Steve Duke, USDA-ARS, 662-915-1036, stephen.duke@ars.usda.gov



Analytical for Ag Process Chemistry and Formulations Research

Purpose of Symposium

This symposium will focus on the application of advanced analytical tools to support active ingredient process chemistry research and formulation development for the Ag market. Speakers are encouraged to share how separations, mass spectrometry, spectroscopy, and/or elemental analyses have been effectively utilized to solve complex problems. The purpose of this symposium is to highlight the value and impact of analytical science on the research and development of new Ag active ingredients and formulations. Representatives from industry and academia are invited to share their experiences and perspectives.

Other ACS divisions which may benefit from this symposium are ANYL, ENVR, and AGFD.

Suggested Topics

- Separations method development supporting active ingredient process chemistry or formulations research
- Novel approaches toward development of methods for separating chiral ag molecules
- Isolation and identification of process chemistry impurities
- Development of multi-active ingredient methods
- Applications of mass spectrometry, spectroscopy, or elemental analyses to solve complex problems
- Analyses of co-formulants supporting formulations research
- Online spectroscopy techniques for process research, development, and manufacturing

For further information, contact the organizers

Daniel Knueppel, Dow AgroSciences, 317-337-4065, diknueppel@dow.com Mark Pobanz, Dow AgroSciences, 317-337-3618, mpobanz@dow.com



Analytical Methods for Pesticide Residues in Pollinator Studies: Beyond Neonicotinoids

Purpose of Symposium

Considerable research has been completed on the analytical methodology used to determine neonicotinoid residues in pollinator-relevant matrixes. Analytical challenges such as small sample size, homogenization, acute matrix effects, and throughput have been disseminated in forums such as ACS-AGRO. More recently an emerging interest in expanding the scope of research to other compound classes has been discussed. With the body of knowledge obtained thus far for neonicotinoids, opportunities are ripe to expand on analytical methodology suitable for other compound classes such as pyrethroids, phenylpyrazoles, carbamates, organophosphates, organochlorines, etc.

The objective of this symposium is to discuss analytical methods and procedures being applied to pollinator residue studies with compound classes beyond neonicotinoids. This symposium will be of interest as a gathering point to discuss the priorities of future pollinator residue research. Representatives from academia, industry, and government are welcome to share their experience with new and current residue methods for pollinator studies on other compound classes. Discussions will also include prospective trends in global pollinator residue research as applied to exposure assessment. This venue provides the opportunity to discuss new research for all industries to explore the expansion of analytical chemistry, a field that requires very specialized methodology. This symposium welcomes participation from interested scientists in ACS ANYL, ENVR, and AGFD divisions.

Suggested Topics

- Streamlining method development from what has been learned and applying it to compound classes other than neonicotinoids
- Overcoming analytical challenges for new methods such as limited sample size, homogenization procedures, matrix effects, etc.
- Presenting case-studies on methods developed for other pesticide classes
- Using labeled internal standards and determining their necessity
- Proposing standardized multi-residue screening methods in pollinator matrixes
- Innovation with pollen or nectar extractions as it relates to QuEChERS with other compounds
- Advancing high-throughput analysis techniques
- Evaluating the potential for regulatory and commercial sectors requesting analytical methods in other compound classes in the near future

For further information, contact the organizers

Thomas Moate, Golden Pacific Laboratories, 559-275-9091, tmoate@gplabs.com Chris Bianca, JRF America, 484-804-6962, chris.bianca@jrfamerica.com



Around the World with Pesticide Maximum Residue Levels

Purpose of Symposium

Over the past decade, Maximum Residue Levels (MRLs) have become increasingly important as compliance standards for agricultural commodities traded around the world. They are the reference values used by nations as they monitor compliance of pesticide residues in food, both domesticallygrown and imported. The rise of consumers' consciousness about food safety and food security is a major driving force today. Accordingly, governmental authorities from around the world have enacted and strengthened MRL regulations exponentially over the past decade. For the grower and food exporter, MRLs have moved from the realm of nebulous abbreviations associated with pesticide residues to a key determining factor in deciding whether or not a crop protection product should be used to combat pests in the field. Registrants of crop protection products are caught somewhere in the middle of providing growers with crop protection tools needed to address pest pressures on the farm and establishing export market MRLs in every possible export destination.

Securing national/regional MRLs, import MRLs and Codex MRLs requires delivering data packages of ever-increasing size and complexity in order to satisfy evolving regulatory systems. This symposium will bring together different stakeholders to discuss, interpret, and debate the recent changes in MRL legislation from around the world and the impact these changes are having on international trade. Members of AGFD may interested in this symposium.

Suggested Topics

- APEC Import MRL Guideline for Pesticides and its implementation
- EPA and IR-4 efforts to harmonize MRLs
- Hong Kong MRL regulation: what's happened since 2014
- MRLs in the emerging markets of Asia
- EU import MRLs: fact or fiction?
- Codex Alimentarius, the bastion of international MRLs
- MRLs issues from the growers' perspective
- Is the MRL an appropriate parameter for use in dietary exposure assessments?
- MRL compliance monitoring in U.S. and overseas
- Making sense of trade data for import MRL decisions
- Science versus regulators pressure to ensure they are keeping the public safe
- Canadian pulse and grain growers MRL case studies and efforts

For further information, contact the organizers

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Assessing Risk, Providing Benefit: Making Informed Decisions in Endangered Species Pesticide Risk Management

Purpose of Symposium

This two-part, full day symposium will address practical risk assessment processes coupled with reasonable alternatives for voluntary conservation that can work together to balance the resources needed for risk management with those invested in enhancements to species habitat. This symposium continues the themes of a similar session held at the ACS AGRO 2017 meeting and will explore the application of complex risk assessment methodologies within a FIFRA/ESA consultation, and how they might be enhanced by conservation actions, best management practices, and data collection. Pesticide registrants, pesticide users, regulatory and wildlife management agency staff, and conservationbased organizations will find this of interest.

Pesticide evaluation under both FIFRA and ESA presents multiple complex challenges affects regulators, registrants, and end-users. Endangered species risk assessment need to balance the highly complex set of variables related to evaluation of a national pesticide label with the need for a transparent, predictable, and efficient science-based assessment. The FIFRA/ESA consultation process is directed to species protection, but the underlying ultimate goal is species recovery.

Suggested Topics

- Voluntary proactive consultation as a mechanism leading to 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 within a program for species recovery
- The use of pesticides in protection and restoration of habitat for threatened and endangered species
- Conservation initiatives in agricultural settings
- Contribution of tiered risk assessment to the FIFRA/ESA consultation process
- Participants may choose to present ideas on programs that may already be contributing to this, and share how combining risk management, landscape management, and knowledge of local conditions might foster recovery in the agricultural and pesticide use landscape

For further information, contact the organizers

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Atmospheric Fate and Transport of Volatilized Pesticide Emissions

Purpose of Symposium

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

- a) Fundamental processes influencing volatilization from soil and plant surfaces; experimental testing and mitigation
- b) Factors affecting airborne chemical movement and deposition
- c) Mechanisms for air-to-plant uptake of airborne emissions
- d) Emerging issues in both environmental fate and exposure modelling as well as risk assessment of airborne emissions from semi-volatile and volatile agrochemicals
- e) Field- and lab- based volatilization studies in risk assessments, e.g., endangered species, bystanders, and operators
- f) Study designs and methodologies for assessing risk of airborne pesticides
- g) Transport in thermal inversions

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

- Modelling pesticide emissions from plant and soil surfaces
- The impact of adjuvants on volatilization
- Large-scale thermal inversion and volatilization: issue or non-issue?
- Volatilization flux calculation methods: Method development
- Developments in higher-tiered environmental fate and exposure modelling
- 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 to mitigate airborne residue exposure

For further information, contact the organizers

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Challenges of Utilizing Higher-Tier Ecotoxicity Data in Risk Assessment & Risk Management of Pesticides

Purpose of Symposium

Registration of pesticides requires an evaluation of potential ecological risk using a tiered testing and assessment approach. Standardized ecotoxicity tests and modeled exposure estimates are used at lower tiers to assess potential risks. However, if lower-tier assessments indicate that a substance may pose a risk to the environment, those risks can then be re-evaluated with refined exposure and/or effects assessments.

During this session, case studies and recommendations will be presented demonstrating how refinements to exposure and effects estimates can be incorporated into the riskassessment process and risk management decisions. This session will also address challenges with conducting higher tier studies and potential barriers to acceptance of higher tier studies. The goal of the session is to help the regulated community improve the design, conduct, evaluation and use of higher tier data to inform regulatory decision making. Scientific outcomes from this session will include recommendations on approaches for higher tier testing and assessment and how this data can be used to inform risk management decisions. This session will interest environmental fate and effects scientists; academic, industry and governmental risk assessors; and regulators and risk managers. Other ACS divisions which may benefit from this symposium includes ENVR and AGFD.

Suggested Topics

- Approaches and challenges to refine pesticide exposure estimates for terrestrial and aquatic species
- Examples of higher tier laboratory and field exposure and/or effects studies and how they can be incorporated into a risk-assessment and risk management decisions
- Use of probabilistic methods and modeling to characterize and refine exposure and effects characterizations for pesticides
- Design of modified exposure studies and toxicokinetic approaches to refine exposure estimates for pesticides
- Advantages and potential disadvantages of higher tier test methods

For further information, contact the organizers

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Chiral Agrochemicals: Analytical Advances and Regulatory Trends

Purpose of Symposium

About thirty percent of known registered pesticides are chiral, which in many cases exhibit some degree of stereoselectivity in their biological effects, toxicity, and environmental fate. In recent years, the chiral agrochemical safety evaluation and risk assessment have become a hot topic and drawn regulatory attention especially in the EU. However, the current risk assessment process for chiral actives is not yet well established. In addition, analytical characterization of the chiral chemistry is complex, and many tools relied upon in a typical symmetric analytical environment do not yield sterospecific information. Therefore, innovations in analytical tools are needed to meet the increased demands in this area.

This symposium will provide a platform to communicate and discuss emerging regulatory trends, strategy development and analytical advances in stereoisomer characterization and risk assessment. Other ACS divisions that may benefit from this symposium are ANYL and ENVR.

Suggested Topics

- Advances in stereoisomer characterization techniques, including sample preparation and advanced analytical techniques
- Emerging global regulatory trends and updates on chiral agrochemicals
- Status of ECPA's proposal of a tiered approach to stereoisomers risk assessment
- Registrants' strategies for evaluating environmental and human safety for chiral new actives – case studies and/or strategy development

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Designing Better Studies: Issues and Improvements in Pollinator Studies

Purpose of Symposium

Pollinator studies are under considerable scrutiny for their high public visibility. Designing and implementing studies to meet expected and requested criteria can often lead to study flaws, loss of useful data, study invalidation, or a significant monetary or time loss.

The pollinator studies are very susceptible to small changes, and understanding better what changes are required during a study and how they affect the outcome of the data is critical.

The objective of this symposium is to discuss issues that currently exist when conducting a pollinator study at all tiers, as well as improvements that have been made to produce higher quality data.

Suggested Topics

- Techniques for successful completion of laboratory (Tier I) studies in honey bees and bumble bees
- Issues with non-Apis pollinator studies
- Tunnel Study design flaws (Tier II)
- Magnitude of Residue sampling collection techniques for pollen and nectar
- Application methodology for Magnitude of Residue studies
- Difficulties in Semi-Field and Full Field studies (Tiers II & III)
- Laboratory rearing of non-Apis pollinators for research
- Environmental condition effects on chemical uptake in crops
- Botanical explanations of crop plants by variety and usefulness in Magnitude of Residue studies
- Regulatory perspectives on design flaws in field studies
- New Innovation in field design and conduct of Pollinator studies
- New Analytical techniques to reduce time and increase efficiency for pollinator studies
- New Metabolism studies mimicking field pollination is this an answer to improving quality of studies
- Feeding studies: a good risk assessment or not necessary
- New modeling techniques to asses Pollinator studies

For further information, contact the organizers

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Early Phase Environmental Fate and Metabolism Studies

Purpose of Symposium

Radiolabeled environmental fate and metabolism (EF&M) studies conducted in a GLP environment are required for the regulatory registration of agrochemicals, and they play a critical role in consumer and environmental safety assessment. Typically, these studies are conducted late in the development phase. However, as regulation has become more stringent over the years, it has been more and more important and valuable to have EF&M information at an earlier time. This mitigates the risk in advancing of candidate compounds and/or expedites later GLP studies. For examples, early phase EF&M studies can be used to screen discovery phase molecules for molecule advancement evaluations, to obtain early metabolite information to reduce the MetID cycle time in a GLP study, and to develop the analytical method efficiently in a non-GLP environment to facilitate the conduct of definitive GLP studies.

This symposium will focus on the innovative study design and conduct of early phase EF&M studies and application of these new methodologies in supporting molecule discovery and development in agro industry. This symposium will facilitate the knowledge and experience sharing and discussions between EF&M chemists across the agro industry on early phase EF&M studies. Other ACS divisions that may benefit from this symposium are ENVR, AGFD and ANYL.

Suggested Topics

- High-throughput assays at discovery phase for molecule
 advancement assessment
- Innovative ways of designing and planning early phase EF&M studies
- Analytical method development conducted as a probe non-GLP study prior to GLP studies
- In vitro metabolism assays
- Probe plant studies using hydroponic systems, callus tissue culture, etc.
- Use of cold material to generate preliminary EF&M information
- Applications of innovative tools and advanced instrumentation for early phase studies
- Challenges of conducting EF&M studies at an early phase, successes, and failures
- Communications between early phase to GLP phase

For further information, contact the organizers

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Environmental Fate Data Creation: Contract Research, Regulatory Compliance, and Challenges

Purpose of Symposium

There has been increased scrutiny by regulatory agencies on the acceptance of environmental fate studies and interpretation of results. It is very important to create quality data from valid GLP compliant studies to perform scientifically valid exposure and risk assessments for agrochemicals to facilitate registrations/re-registrations. Agrochemical companies mostly depend on Contract Research Organizations (CROs) for conducting the studies. The purpose of this symposium is to discuss critical design and analytical issues and best practices for existing and new guideline studies in the area of environmental fate and metabolism including other challenges faced by CROs.

The goal of this symposium is to provide a forum for agricultural industries, CROs, academic researchers, and regulatory officials to gain a better understanding of the analytical issues, study design, and other challenges in conducting environmental fate studies under GLP.

Suggested Topics

- Identification of unknown polar metabolites: critical issues and regulatory compliance.
- Adsorption/desorption and soil metabolism studies: analytical issues concerning fast degrading compounds and inventive methods for acceptable results.
- Challenges in kinetic evaluation to obtain statistically valid results for environmental fate studies.
- Contract research services: quality, challenges and strategies for a more sustainable future to meet new regulatory requirements.
- Innovative approaches in improving extraction recovery for reducing soil-bound residues.
- Impact of any new regulatory requirements on study design and study costs.

For further information, contact the organizers

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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/risk assessments and in the process facilitate harmonization of pesticide registration globally. Spatial and temporal variability, fate process coupling and interaction, conservation practice implementation, and changing climates may add also substantial variability to pesticide fate assessments. Presentations describing original research, cases studies, and literature review which address these and related topics are encouraged. Scientists and regulators engaged in all aspects of pesticide exposure assessment, modeling, and fate evaluation will benefit by active participation.

Suggested Topics

- Relating laboratory and field fate measurements
- Conduct and interpretation of environmental monitoring
- Regulatory relevance of modeling, monitoring, and environmental fate measurements
- Use of modeling 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 / Application Technology

For further information, contact the organizers

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Environmental Study Design - Current and Emerging Guidelines EARLY CAREER SCIENTIST SYMPOSIUM

Purpose of Symposium

Over the past few years, there has been increased scrutiny by regulatory agencies on the design of environmental studies and interpretation of results. With emerging technologies and new draft guidelines, it is important for the agricultural industry to understand and meet changing regulatory requirements. The purpose of this symposium is to discuss the study design and best practices for existing and emerging guideline studies in the area of environmental fate and metabolism. This symposium will also serve as a platform to foster future collaboration for postdoctoral and early career scientists to present their latest research results.

The goal of this symposium is to create a forum for scientists to present optimized study designs, guideline interpretations, and experiences with regulatory agencies in order for attendees to gain a better understanding of the study design and challenges in environmental fate and metabolism.

Suggested Topics

- Study design and conduct of surface water mineralization in either dark or diffuse light with optional inclusion of sediment
- Characterization of polar metabolites in abiotic degradation studies (i.e., photolysis study)
- Characterization of non-extractible residue (NER) in soil and water/sediment degradation studies
- Adsorption/desorption study design, and different approaches to calculate the sorption isotherms
- Study design to determine plant-uptake factor
- Effect of water treatment processes on the nature of residues present in surface and ground water
- Irradiated water/sediment study design with a higher tiered study requirement
- Strategies for conducting hydrolysis study for more than 30 days if metabolites are still increasing or the DT50 is not observed

For further information, contact the organizers

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Good Laboratory Practices for the Agrochemical Professional

Purpose of Symposium

Good Laboratory Practices (GLPs) are a set of quality principles based upon the law under 40 CFR Part 160 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. 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.

The target audience includes anyone that 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. Divisions that may be interested in attending this symposium include AGRO, AGFD, and ENVR. This symposium will be held in conjunction with the EPA-GLP Specialty Section of the Society of Quality Assurance (SQA)

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 U.S. and worldwide
- Conduct of method validations and independent lab verifications
- Development of standard operating procedures to meet GLPs
- Best practices for use of electronic systems for the capture of field data

For further information, contact the organizers

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Higher-Tier Fate and Metabolism Study Design to Address Potential Regulatory Issues

Purpose of Symposium

A battery of fate and metabolism studies are required by regulatory bodies for agricultural pesticides, active pharmaceutical ingredients, ingredients used in personal care products and biocides to facilitate an evaluation of potential risks to the environment and a demonstration of safe use, prior to registration. Typically, these studies comply with appropriate testing guidelines. However, there are times when bespoke higher-tier study designs are needed to address specific potential regulatory issues like volatilization, aerobic mineralization, persistence, and aged sorption.

The purpose of this symposium is to present some of the approaches that have been used in designing modified or highertier studies to address potential regulatory challenges in packages submitted for registration, or simply developing further scientific understanding to refine current regulatory guidance. Such approaches will be further reviewed in a panel discussion.

The symposium will be of interest to environmental fate researchers, academia, industry and regulators, including members of ACS ENVR. Presentations are also expected to cover issues addressing regulatory requirements from agencies, including EMEA, US EPA, FDA, Health Canada, PMRA, EFSA, and other global regulatory bodies.

Suggested Topics

- Use of irradiation of test systems to enhance degradation and mimic environmental conditions
- Approaches and challenges in trapping volatile compounds
- Design or customization of laboratory and field studies to verify aged sorption and derive relevant parameters in support of regulatory risk assessment
- Modified study designs in biodegradability testing
- Design of laboratory or aquatic field studies to address accumulation of pesticides in sediments

For further information, contact the organizers

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How Can Advances in Chemistry Improve Human Health Exposure Assessment?

Purpose of Symposium

Exposure science is being impacted by a number of major trends: a) analytical chemistry capabilities are improving, allowing for the detection of more chemicals at lower concentrations and in larger numbers of samples, b) innovations such as personal biomonitoring equipment and advanced exposure modelling are providing new types of exposure data, and c) the expectations for human health assessments and exposure monitoring are increasing.

To date, the greater weight has generally been on hazard in the risk assessment process, with exposure often being considered retrospectively. The results can be the expenditure of considerable time, effort and resource on acquiring hazard information that ultimately is not required to reach conclusions on the safety of a chemical. As a result, there is a need to generate better exposure findings and to integrate the findings earlier in the assessment process. There is also an increased social and political pressure to improve exposure science. As the National Academy of Sciences states in its 2012 report, scientists need to characterize exposures quickly and cost-effectively at multiple levels of integration-including time, space, and biologic scales-and for multiple and cumulative stressors and to scale up methods and techniques to detect exposures in large human and ecologic populations of concern.

This symposium will provide a forum for academic and government researchers, industry scientists, CROs, and regulators to present and discuss recent advances in exposure assessment for chemicals. Other ACS Divisions that might be interested are CHAS, ANYL, and ENVR.

Suggested Topics

- New analytical techniques for chemicals including non-targeted methods
- Advances in personal exposure monitoring
- Application of remote sensor data
- Use of QSARs to predict exposure-relevant information
- Use of geographic information systems to manage and interpret data on local sources
- Advances in atmospheric & air pollutant monitoring techniques
- Development of screening Physiologically Based Pharmacokinetic Modeling approaches using QSAR predictions of chemical-specific inputs
- Collection, organization, and dissemination of human biomonitoring data
- Biomarker discovery
- Using Biomonitoring Equivalents to evaluate biomonitoring data
- Advances in toxicokinetics and the prediction of 'systemic doses' from multi-route exposures
- The role of internal dosimetry in dose-response and exposure assessments
- In-vitro-to-in-vivo extrapolation to inform understanding of the relationship between molecular initiating events and exposure
- Computational capabilities and algorithms for modeling population exposures from multiple sources
- Status/updates on existing population models
- Agent based modeling of exposure-related behaviors
- Use of biomonitoring data to evaluate exposure model predictions
- Novel strategies for problem formulation that utilize existing information and start with exposure assessments

For further information, contact the organizers:

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Innovations in Chemistry Support Strategic Human Health Risk Assessments and Reduction in Animal Use

Purpose of Symposium

The human health risk assessment paradigm for chemicals is constantly changing. Innovations in chemical research with new technology is making a huge impact on how toxicity testing programs can be designed. There is great emphasis on shifting towards a risk based testing paradigm.

Historically, although risk is a function of hazard and exposure, greater importance has been given to characterizing hazard in the risk assessment process. However, testing chemicals at levels that are several margins higher than human exposure levels calls into questions the relevance of the data to assess human health risk. With advancements in chemical research and the development of innovative methods to characterize chemical exposures, the scientific community has been advocating for 21st century testing approaches that will better inform hazard while reducing animal use.

This symposium will focus upon this key aspect of innovations in chemistry leading to strategic testing that will better inform risk assessments that are relevant to humans. It will provide a forum for academic researchers, industry scientists, and regulators to present and exchange information on recent advances and approaches in chemical testing. Other divisions which may be interested in this symposium are TOXI and CHAS.

Suggested Topics

- In silico approaches such as QSAR and read-across to predict toxicity of chemicals
- Integrating toxicokinetics and the use of 'systemic dose' data
- *In vitro*-to-*in vivo* extrapolation modeling to allow better the relationship between MoA and exposure
- Alternative approaches of chemical testing to assess chemical interactions with cellular components (receptor binding and transactivation assays)
- Use of adverse outcome pathways to understand human mechanisms of toxicity following chemical exposure
- Internal dosimetry for dose-response and exposure assessments
- Physiologically based pharmacokinetic modeling
- Biomonitoring equivalents
- Problem formulation, utilizing existing information, and starting with exposure assessment (rather than hazard)

For further information, contact the organizers

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INSecticide TARgets (INSTAR) Summit

Purpose of Summit

Following the 15th International Congress of Entomology in Orlando, Florida, last year, Professor Jeffrey Bloomquist, University of Florida, organized a workshop to discuss issues associated with the development of new insecticides along with the successes and failures of current resistance management strategies. From this initial effort, the INSTAR (INSecticide TARgets) group was formed, and it was decided to hold an INSecticide TARgets Summit annually. The purpose of the Summit is to provide a venue where academic, industry and government scientists can freely discuss advances in the field and exchange ideas fostering mutuallybeneficial collaborations. The goal of the Summit is to build comradery and working relationships to facilitate the discovery of new targets, new chemistry, new products, and resistance management approaches in order to provide sustainable pest and vector control. The Summit will have invited oral presentations, discussion sections, and an aligned poster session. Selected posters will be included in the oral presentations.

Suggested Topics

- New and novel insecticide targets
- New and novel chemistry for insect control
- Natural products for biocontrol
- Bringing new products to the market
- Current status of resistance management
- New and novel approaches for resistance management

For further information, contact the organizers

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Joint Reviews for New Pesticides: Success Stories, Challenges, and Future Prospects

Purpose of Symposium

This symposium will address joint submissions for registering new pesticides. As in other industries, the first crop protection company to enter the market with a new product line has a clear advantage over competitors. Hence, registrants strive for faster and more cost-effective ways to get their new active ingredients to market. The standard approach has involved generating a core data package of guideline studies and, in combination with locally required studies, submitting many different registration dossiers to the various national registration authorities for review and approval. Such an approach involves great redundancy of effort by both the registrants and regulatory authorities and often results in disharmonized scientific conclusions and standards. In contrast, a joint submission involves development of a common core registration dossier which is submitted to a group of regulatory authorities from two or more countries who share data reviews in a cooperative fashion. Benefits of a successful joint submission effort include faster approval time, reduction in wasteful duplication of efforts by industry and governments, and greater likelihood of harmonized registration conclusions and standards.

This symposium will bring together registrants, regulators, regulatory consultants and other stakeholders to explore ways in which joint submissions can become the norm rather than the exception. The symposium will highlight examples of successful joint reviews (approaches used to get buy-in from regulators; benefits to product launch strategy), as well as challenges and barriers for the joint review process. The symposium will culminate with discussion and development of a road map to bridge technical and political gaps so that joint submissions become "the way" for registering new active ingredients globally and that more countries may adopt the joint review paradigm.

Suggested Topics

- Case studies of successful joint reviews for the registration of new active ingredients: approaches used and benefits to industry, governments, and other stakeholders.
 - Factors that were important to success
 - o Impacts on approval timelines
 - o Quantifications of economic impact
 - Role of the observer program
- What are the limiting factors for the joint review process and its expansion?
 - o From a technical perspective
 - From a regulatory standpoint
 - o From societal and political positions
- How can joint submission become "the way" to register a new active ingredient?
 - o Point of View of Regulatory Agencies
 - Point of View of Regulatory Consulting Companies
 - o Point of View of Crop Protection Registrants
 - Point of View of Agricultural and Public Stakeholders
- What has been the OECD's role, and how could the OECD framework help additional countries accept joint submissions?
- Other joint reviews experiences and opportunities
 - o Reregistration
 - o New uses
 - o Others

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Legal Aspects of Agriculture, Agrochemicals, and Agribusiness

Purpose of Symposium

Engaging in agribusiness presents a unique set of opportunities and challenges. New biotechnology disciplines are constantly emerging, and the resulting agro-products must go through legal hurdles on their path to the market. Agrochemicals must be registered, and new processes and products require intellectual property protection. While agriculture as we know it is changing, the law and regulatory framework can be slower to adapt. Despite these challenges, agriculture will continue to evolve as global food supply and agricultural land is limited.

This symposium will explore regulatory issues, legal challenges, and case studies pertaining to agribusiness and agrochemicals. Both scientific and legal perspectives will be offered. A panel discussion will provide a wrap-up of the day's presentations and will give attendees the opportunity to interact with the experts.

The topics to be discussed are of interest to many Divisions including AGFD, CHAL, and ENVR. Those in the legal, regulatory, R&D, and any other agricultural fields will also find this symposium to be of great interest.

Suggested Topics

- Intellectual property assessment
- Regulatory strategies for FIFRA-regulated agrochemicals and home and garden pesticides
- Emerging regulatory and scientific developments and potential impact to current and future registrations
- Case studies to support registration, data gap analysis, and interpretation of study results
- Pathways for bringing new agrochemicals to market
- Legal hurdles to introducing new agro-products to market
- Expert witness case studies
- Differences in global legal issues
- Support from Trade Associations
- Non-successful case studies
- How new regulations impact Industry, Government, and Academia

For further information, contact the organizers

Rodney Bennett, 610-805-3482, rodbennettdac@gmail.com Andrew Coates, 702-203-5132, awecoates@gmail.com Jeanette M. Van Emon, U.S. EPA, 702-798-2154, vanemon.jeanette@epa.gov



New Analytical Technologies for Pesticide Analysis

Purpose of Symposium

Analytical chemistry is applied in most if not all phases of pesticide product development, registration, and commercialization. The primary focus of this symposium is to share innovative approaches of developing, validating, and transferring analytical methods that accelerate the phase advancement and/or reduce the cost of method development and lab operation. We plan to bring together research and development initiatives and framework from pesticide industry, academia, CROs, instrument, and software companies, and present potential collaboration opportunities to the audience.

The symposium would be of interest and benefit to analytical chemists and lab managers who are responsible for supporting pesticide process and formulation development, active ingredient and end-product registration, and manufacture support. Other ACS Divisions that might be interested are ANYL, ENVR, and AGFD.

Suggested Topics

- New trends in pesticide analysis
- New instrumentation that provides better analyte selectivity, improved sensitivity/accuracy, and higher sample throughput
- New chromatographic column technologies for fast and cost-effective separation of pesticide active ingredient from matrix or impurities
- New sample preparation technologies for high throughput pesticide analysis
- New strategies, practice and statistics or IT tools for accelerated pesticide analytical method development, validation, and transfer
- New sample and data management practice for pesticide analysis

For further information, contact the organizers

Wen Su, Monsanto Company, 314-694-8678, wen.su@monsanto.com Manasi Saha, BASF Corporation, 919-547-2232, manasi.saha@basf.com



Non-Extractable Residue (NER) Bio-accessibility and Potential Risks

Purpose of Symposium

The objectives of this symposium are to bring in academic, industrial, and government regulatory experts to share their recent advances in non-extractable residues (NER) research, such as the identification, formation/degradation dynamics, bio-accessibility, classification, and risk assessment in aged soil; advanced technology and novel methodology for NER study, modeling of NER formation; determination of toxicological end points for NER, current gaps and challenges in NER research; and the future prospective of NER regulation. It is also an opportunity for the participants to exchange opinions and seek guidance from regulators.

Please take the opportunity of this symposium to present your recent work in the area, provide your expertise, and review your expert opinions on the regulatory aspects of NER risk assessment. The target audients include those in areas of environmental fate research, environmental risk assessment, ecotoxicology, and modeling. Regulators are encouraged to join and provide the regulatory update and guidance.

This is a joint symposium, and members from ENVR division are encouraged to attend and to present. This symposium may also be of interest to members of CHAS and ANYL.

Suggested Topics

- Latest development in NER research, overview
- Determination of nature and structures of NER
- Solvent extractability vs. bio-accessibility
- Remobilization potential of NER under natural environmental conditions
- Kinetics modeling of NER formation and dissipation
- Uptake of NER by plant or soil organisms
- Determination NER toxicity
- Qualitative and quantitative assessment of environmental risk potentials by NER
- Industry perspective of NER assessment
- Regulatory perspective of NER and their potential impacts on compound registration

For further information, contact the organizers

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Pesticide Spray Drift: Application, Evaluation, and Mitigation

Purpose of Symposium

This symposium is intended to facilitate dialogue among scientists in agricultural and environmental related fields to examine:

- a) Factors that influence the nature and magnitude of off-target spray drift of pesticide products
- Estimation and/or measurement of airborne and sedimenting spray drift via predictive modeling, field monitoring, or wind tunnel measurements
- Development and testing of drift reduction technologies (DRTs), such as equipment, spray material property modifiers, and spray delivery assistance
- d) Landscape features influencing spray drift
- e) Emergence of unmanned aerial and ground-based spray equipment

The symposium will provide a forum for interactions among academic, industry, and regulatory experts. It will enhance understanding of spray drift and related phenomena that may present a risk to agricultural workers, bystanders, and the environment, as well as stimulating progress toward reducing drift exposure without adversely impacting the agricultural enterprise. This symposium is open for collaboration with other divisions such as ENVR and ANYL.

Suggested Topics

- New or improved techniques for measuring or monitoring spray drift
- Improved standards for generating and/or harmonizing spray drift data
- Advances in predictive modeling of spray drift
- Sample collection and analytical issues related to spray drift data generation
- Statistical and regression curve-fitting issues related to spray drift data generation
- Influence of equipment, spray material, meteorological, or landscape features on spray drift transport
- Drift reduction technologies
- Development, testing, opportunities, and challenges related to automated spray delivery
- Regulatory developments related to spray drift and its consideration in environmental assessment of pesticides

For further information, contact the organizers

Jeff Perine, Syngenta Crop Protection, LLC, 336-632-2374, jeff.perine@syngenta.com Harold Thistle, United States Forest Service, 304-285-1574, hthistle@fs.fed.us



Pesticides and Chemophobia in the News: What You Need to Know as a Scientist and Consumer

Purpose of Symposium

Those of us in agriculture and food production know well the importance of pesticides, food additives, and other chemical innovations, and the rigorous processes in place to ensure safety. At the same time in today's social media-driven society, we are inundated with posts, memes, and news stories. Many originate from or reference questionable sources including celebrities or other high profile individuals. This messy, information-rich environment can make it very difficult to discern fact from fiction; real from fake.

More broadly this era of "fake news" challenges science and scientific integrity in new and complicated ways. In this symposium, we will explore some of the sources and types of "fake news" and discuss how we can combat it. Other ACS Divisions that might be interested are AGFD and CHAS.

Suggested Topics

- Pesticide residues in my cereal !?!
- Bees, butterflies and pesticides
- Media pitches the good, bad, and ugly
- If I can't pronounce it, it shouldn't be in my food (food preservatives / additives)
- Correlation doesn't mean causation
- The newsworthy In Vitro Study
- The pesticide scientist's least favorite 4 letter word FOIA
- The lack of science credibility in news stories (how non-published and deceptive published studies make headlines)
- What is going on with Prop 65

For further information, contact the organizers

Aimee C. Hood, Monsanto Company, 636-795-4970, aimee.hood@monsanto.com Genevieve O'Sullivan, CropLife America, 202-872-3864, gosullivan@croplifeamerica.org



Process Research & Development in Crop Protection

Purpose of Symposium

To address the food security needs of the growing world population, modern agriculture must continually develop technologies that increase production. Process chemists in the crop protection industry have additional challenges beyond those required for pharmaceutical industry. Crop protection process chemists must develop processes to deliver much larger volumes of active ingredient, typically in the range of hundreds of metric tons per year, that meet much lower cost targets.

This symposium will serve as a platform for crop protection process scientists to share their innovative solutions to these challenges. At this symposium, the audience will hear detailed presentations and case studies from crop protection organizations around the world. The latest issues relating to synthetic route design, development, and optimization in the crop protection industry will be discussed. Although the focus of this symposium is process research and development in crop protection, the content will be beneficial to process chemists in other industries and organic chemists in general.

Suggested Topics

The suggested topics for this symposium are, but not limited to, the following:

- Route scoping and selection for the synthesis of crop protection products
- Process development toward crop protection products
- Impurity identification and control in the development of crop protection products
- Application of PAT in the process development of crop protection products
- Application of continuous flow technology in the development of crop protection products
- Safety considerations, practices, and safety hazards evaluation and mitigation in process research and development
- Sustainability in process research and development
- Collaboration to drive technology innovation and process development
- Case studies of large scale production and manufacture
 of crop protection related products

For further information, contact the organizer

Qiang Yang, Process Chemistry, Dow AgroSciences, 317-337-5090, qyang1@dow.com



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
- Agricultural Biotechnology
- Agriculture in Urban and Peri-urban Environments: Food Production, Structural Protection, Turf and Ornamentals, Water Reuse, and Down-the-Drain Chemistries
- Agrochemical Toxicology and Mode of Action
- Air Quality and Agriculture
- 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 Exposure and Ecological Risk Assessment
- Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Formulations and Application Technology
- Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial and Worker Protection Products
- Human Exposure, Health, and Risk Assessment
- Non-Food/Feed Production and Uses of Ag Commodities and Byproducts
- Regulations, Harmonization, and MRLs
- Science Communication
- Technological Advances and Applications in Agricultural Science (e.g., Nanotechnology, Genetically-modified Organisms and Biocontrol Agents)

For further information, contact the organizer

Julie Eble, Eble Group, 484-431-6978, julie.eble@agrodiv.org



Reducing Uncertainty in Modeling the Environmental and Human Health Exposure to Agrochemicals

Purpose of Symposium

Regulatory agencies tend to use standardized procedures with simulation models for preliminary risk assessments. Standard procedures may be too simplistic, too conservative, or inappropriate for unique situations. However, advanced complexity and emerging technology may be difficult to incorporate into a regulatory framework.

The purpose of this symposium is to identify common areas of uncertainty in environmental risk assessments, the reasons for the uncertainty, methods and difficulties for improving accuracy, and the obstacles in implementing improvements in regulatory decision making. This symposium is meant to compare how different regulatory agencies have addressed this topic and to demonstrate how these challenges have been met, or could be met, through case studies.

The symposium should be of interest to the regulatory community, model developers, and scientists involved in designing laboratory and field studies, databases, and model scenarios. Other ACS divisions which may benefit from this symposium are ENVR and CHAS.

Suggested Topics

- Processes modeled inadequately in regulatory risk assessment
- Appropriateness of laboratory data to represent *in situ* chemical behavior as model inputs
- Temporal time steps and spatial resolution
- Data availability and disparity in data resolution
- Addressing variability in environmental settings and chemical use
- Reconciling model predictions with monitoring data
- Weight-of-evidence to reduce uncertainty
- Case studies in higher tier refinements

For further information, contact the organizers

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Risk Assessment, Management, and Communication (Lost in Translation)

Purpose of Symposium

George Bernard Shaw commented, "The greatest problem in communication is the illusion that it has been accomplished." Agrochemicals involve many scientific and business disciplines from the product discovery, efficacy studies, laboratory toxicity and environmental fate testing, field studies, modeling, risk-benefit evaluation, risk characterization, labeling, product use, ambient monitoring, university research, and public education. Each discipline seems to have its own language and jargon. Different organizations have different standards, objectives, and methodologies for testing and evaluation. Language barriers can exist every step of the way.

The purpose of this symposium is to discuss how science and environmental risk are managed and communicated to multiple stakeholders across a wide range of disciplines and expertise to achieve safe product use, transparent and effective registration, and stewardship.

The symposium should be educational to anybody involved in agrochemical research, use, risk assessment, risk management, and decision making.

Suggested Topics

- Strengths and weaknesses inherent in lab studies, field studies, and predictive models
- Communicating variability and uncertainty
- Correlation versus causation
- Investigating 6(a)2 incidents
- Risk in perspective with other stressors
- Ancillary information and weight of evidence
- Does the tiered approach aid or hinder risk communication?
- Case studies in risk-benefit decisions
- Risk management and communication
- Multi-stakeholder communication success stories
- Overcoming communication barriers across disciplines

For further information, contact the organizers

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RNAi and Gene Editing - Utilization for Enhanced Crop Production

Purpose of Symposium

Since the American scientists Andrew Fire and Craig Mello were awarded the Noble Prize for their discovery of a mechanism that can degrade mRNA from specific genes, numerous scientists have studied applications of this novel technology. This mechanism, RNA interference, is activated when RNA molecules occur as double-stranded pairs in the cell. Double-stranded RNA activates biochemical machinery which degrades those mRNA molecules that carry a genetic code identical to that of the double-stranded RNA.

RNA interference and gene editing are now powerful tools that provide unique opportunities in agriculture. Both technologies utilize the sequence specificity of RNA to either change gene expression or edit a gene or genome. This symposium will provide a platform for communication about RNAi and Gene Editing in agriculture – applications, opportunities, and challenges. Government, academic, and industry researchers are encouraged to share the unique perspectives from their sector or highlight outcomes collaborations or working groups. Other ACS Divisions that might be interested are ANYL, ENVR, and AGFD.

Suggested Topics

- RNAi/Gene editing applications including enhanced food nutrition and production, pest control and crop protection, and other applications
- Regulatory strategies for registration and stewardship of RNAi or gene editing products such as global harmonization and regulatory implications
- New opportunities and challenges
- Analytical challenges and solutions including sample integrity, sample preparation, qualitative and quantitative analysis, and GLP compliance
- Communication of new technology to the public, including managing perception and education

For further information, contact the organizers

Paul Reibach, Smithers Viscient, 508-295-2550, preibach@smithers.com Martin Ruebelt, Monsanto Company, 636-737-7004, martin.c.ruebelt@monsanto.com



Strategies for Radiolabeling Agrochemicals in Regulatory Studies and Advanced Techniques for Characterization

Purpose of Symposium

The purpose of the symposium is to bring together scientific dialogue and knowledge exchange amongst international experts on strategy for radiolabeling agrochemicals in regulatory studies and advanced techniques for characterization. Radiolabeled agrochemicals are used to support various regulatory metabolism and fate studies, which is a vital part of product registration and stewardship. The success of a radiolabeling strategy requires the consideration and balancing across scientific justifications, route and cost of radiosynthesis, and regulatory acceptability, which could be a challenging task. In addition, the analytical technique associated with the radiolabeled material analysis is also a critical component during agrochemical discovery and development. Please join this symposium to provide your technical knowledge, experience, and/or regulatory insight on this exciting and challenging area. Topics to present include, but are not limited to, strategy and trends of the labeling position selection, specific activity, scale of synthesis, and advanced techniques for purification and characterization of radiolabeled agrochemicals.

Regulators are encouraged to attend as well to provide guidance on what they view as acceptable criteria for regulatory studies. Another ACS division which may benefit from this symposium is ENVR.

Suggested Topics

- Strategy for the labelling position selection, overview, and case studies
- Trends and regulatory acceptability of labelling strategy
- Advanced analytical techniques for purification and characterization of radiolabeled or stable isotopic labeled compounds
- Viewpoints and considerations of regulators on acceptable criteria of radiolabeled materials for environmental fate and metabolism studies
- Techniques for detection and analysis of radiolabeled materials

For further information, contact the organizers

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Structure-Stability Relationship of Xenobiotics

Purpose of Symposium

Biotic and abiotic stability of xenobiotics including agrochemicals can influence their biological activity and environmental fate. Thus, elucidation of chemical properties of xenobiotics containing different chemical moieties in relation to their stability is of great interest among scientists in industry and academia. This symposium will present recent findings that address some of the following suggested topics. The goals are to gain a better understanding of molecular basis of stability of xenobiotics and to learn how structural changes of certain compounds can impact their stability and beyond.

Even though the topics related to agrochemicals are within the scope of the symposium, other divisions including AGFD, ENVR, and TOXI might be interested in this symposium as the scientific outcomes can be applied to their chemistries of interest in other biological systems.

Suggested Topics

- Structure-stability relationship of structurally-related xenobiotics in abiotic environment
- Structure-stability relationship of structurally-related xenobiotics in biological matrices
- Factors affecting abiotic or biotic stability of xenobiotics
- Impact of structural modification of compounds on their stability and biological activities
- Impact of structural modification of compounds on their stability and environmental fate
- New technology or tool to study abiotic and biotic stability of compounds
- Modeling to predict structure-stability relationship of xenobiotics

For further information, contact the organizer

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Surfactant and Colloid Science as Applied to Agrochemical Formulations

Purpose of Symposium

This symposium highlights industry's and academia's pursuit to provide globally applicable agrochemical formulation solutions through surface and colloidal chemistry. We invite both industry and academic scientists who research agrochemicals and their applications as well as those affiliated with other divisions such as Agricultural and Food Chemistry, Colloid and Surface Chemistry, Environmental Chemistry, or Organic Chemistry, whose technologies are in non-crop applications, to exchange perspectives between industries.

Advances in plant nutrition and crop protection formulation science provide improvements in bioefficacy, uptake, compatibility, and physical stability, and complement specific requirements for active ingredients, tank mixtures, local regulations, plant genetics, climate, and geography. In addition, methods for evaluating formulation processing and stability save time on R&D and predict failure modes in realworld situations.

With new and changing technological tactics and issues impacting the industry (e.g., demand for sustainable technologies, changing regulatory environment, resistance, extreme weather, etc.), it is an intriguing time to explore ways excellent product designs meet the needs of a more populated and prosperous world.

Suggested Topics

- Drift and volatility solutions for products paired with the novel dicamba- and 2,4-D-resistant genetics
- Innovative surfactant and dispersant tools for formulations
- Green agrochemical formulations and biopesticides
- Particle size effects in ag formulations, including nanotechnology for ag formulations
- Regulatory issues for formulations, including environmental fate and metabolism
- Adjuvant technologies for efficient uptake/translocation
- Synergies and challenges in multi-active ag formulations
- Methods for evaluation of formulation stability
- Field studies of novel formulations
- RNAi-based formulation development and testing
- Seed treatment and coating technologies
- Formulations for plant nutrition enhancement
- Microencapsulated pesticides for improved worker safety and prolonged release
- Compatibility agents for complex tank mixtures

For further information, contact the organizers

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Synthesis and Chemistry of Agrochemicals: ACS Industrial Chemistry Award Symposium in Honor of George P. Lahm

Purpose of Symposium

This symposium is being organized to honor Dr. George P. Lahm of FMC for his receipt of the ACS Award in Industrial Chemistry. The symposium will highlight recent research in the synthesis and chemistry of agrochemicals. Talks which describe the design, isolation, synthesis, biology, and/or structure-activity relationships of new chemistry targeting crop protection or animal health are welcomed. Lectures focusing on synthesis of ¹⁴C and ³H-labeled agrochemicals are also invited.

These sessions are jointly sponsored with the Industrial Chemistry Division and may be of interest to members of ENVR and AGFD.

Suggested Topics

- Insecticides: Agronomic, Urban, or Animal Health
- Herbicides
- Fungicides
- Nematicides

For further information, contact the organizers

Tom Stevenson, FMC, thomas.stevenson@fmc.com Sameer Tyagi, Syngenta, sameer.tyagi@syngenta.com



The Role of Monitoring Data in Advancing Regulatory Risk Assessment

Purpose of Symposium

Monitoring program data and the associated interpretation is critical in evaluation chemical exposure profiles in environmental risk assessment. The purpose of this symposium is to advance techniques and methodologies toward characterization and implementation of monitoring data in risk assessment with a special focus on surface water monitoring programs and watershed and edge-of-field models.

Presentations should focus on both field and modeling investigations of environmental exposure in aquatic systems. Some emphasis should be placed on field study design and statistical analyses to address controlling variables and study results, including elements of sample frequency, timing, and quantity. Numerical modeling approaches should focus on the use of field monitoring data and ancillary supporting environmental data to synthesize and draw conclusions about chemical exposure profiles in both space and time.

This symposium will provide a forum for a collaborative assessment of the strengths and limitations of predictive watershed and edge-of-field models used by governmental agencies, industry, and academia. This symposium will be relevant to industry, government, and academia. The program will principally focus on North America, but international studies would be welcome. Members of the ENVR and AGFD divisions of ACS may be interested in this symposium.

Suggested Topics

- Field- and watershed-scale aquatic monitoring design to inform data analysis and numerical modeling approaches
- Statistical considerations in field monitoring study design
- Advances in field- and watershed-scale numerical modeling techniques using field data
- Regulatory approach of paired monitoring and modeling in current and future aquatic risk assessment
- Pesticides, nutrients, and other emerging chemicals of possible concern

For further information, contact the organizers

Daniel Perkins, Waterborne Environmental, 703-777-0005, perkinsd@waterborne-env.com Les Carver, Waterborne Environmental, 703-777-0005, carverl@waterborne-env.com Others TBD



The Role of P450s in Broad-Spectrum, Multiple Herbicide Resistance in Weeds

Purpose of Symposium

This symposium is being held in honor of Stephen Powles, the winner of the 2018 ACS International Award for Research in Agrochemicals, sponsored by DuPont Crop Protection, for his research elucidating the role of P450s in broad-spectrum multiple herbicide resistance in weeds. The symposium will feature Stephen Powles and a panel of invited speakers to present overviews and recent advances in metabolic herbicide resistance. Oral presentations are by invitation only, but posters are welcome.

Multiple mechanisms of resistance can be combined in individual plants, thus conferring complex multiple resistance. Some resistance mechanisms confer broad spectrum resistance, not only to the particular herbicide used on a weed population, but also to other herbicides, even chemically dissimilar herbicides or products not even used yet on a population. The role of cytochrome P450 enzymes and other metabolic enzymes in enhanced herbicide metabolism as a resistance mechanism will be explored. Advances in understanding the specific genes and pathways involved in metabolic herbicide resistance enable improved diagnostic methods and the development of innovations to reverse or inactivate metabolic resistance mechanisms.

Other ACS Divisions that might be interested are ANYL and AGFD.

Suggested Topics

- Evolution of metabolic herbicide resistance
- Herbicide metabolite identification
- Identification of genes conferring metabolic herbicide resistance
- Diagnostics for metabolic herbicide resistance
- Innovative technologies to inactivate metabolic herbicide
 resistance

For further information, contact the organizer

Todd Gaines, Colorado State University, 970-491-6824, todd.gaines@colostate.edu



Uses of LC-Mass Spectrometry in Agricultural Research and Development: New Trends and Best Practices

Purpose of Symposium

Advances in instrumentation, and more recently in software, have been the most important drivers in the way Agricultural Research and Development is conducted. Newer mass spectrometry instrumentation and data processing tools have provided better analyte selectivity, improved sensitivity, and higher throughput. Instruments incorporating accurate mass and high mass resolution capabilities significantly impact how studies are performed. The advances mentioned above have made lower cost instrumentation more available to laboratories in the Ag Industry, CRO's, and Academia. Accurate mass technology is now routinely used in all aspects of Agricultural R&D such as product discovery and development, product registration, and monitoring of food and environmental samples. This symposium will focus on many of these areas and the ANYL Division.

Suggested Topics

- Use of high resolution accurate mass (HRAM) instrumentation for metabolite identification
- Advanced software applications for metabolite identification and structural elucidation
- 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 multiresidue 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
- Surprise us

For further information, contact the organizers

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Vector-Borne Diseases: Role of Chemistry in Managing Risks to Humans, Domestics Animals, Aquaculture, and Wildlife

Purpose of Symposium

Chemical agents are one of many treatments that can be used to suppress vector populations, and therefore the spread of vector-borne diseases to humans, domestic animals, and wildlife. The same chemical agents have the potential to cause adverse effects to humans and non-target organisms.

This symposium is an interdisciplinary scientific forum to identify and merge the many technologies related to eradicating vector-borne diseases. The symposium should interest health specialists, entomologists, environmental scientists, and epidemiologists involved in the research and application of science related to controlling vector-borne diseases.

Suggested Topics

- Spatial technologies in tracking vectors and vector-borne diseases
- Integrated vector management
- Specific chemical agents and their uses
- Discovery of novel insecticides/acaricides
- Insect resistance
- Exposure and risk of chemicals to non-target organisms
- International and interagency collaboration
- Risk-benefit case studies
- Public outreach

For further information, contact the organizers

W. Martin Williams, Waterborne Environmental, Inc., 703-777-0005, williamsm@waterborne-env.com Aaron D. Gross, Virginia Polytechnic Institute and State University, 540-232-8448, adgross@vt.edu Daniel R. Swale, Louisiana State University, 225-578-1634, dswale@agcenter.lsu.edu



Programming Committee. As Vice Chair, I am now working with this year's Programming Committee as a continuation of the excellent work by Julie Eble as Vice Chair last year. This committee provides a forum for discussion of multi-year programming based on the standing topics of proven interest and using the topic champions to support symposium planning. It also seeks to partner through programming with other ACS Divisions and other national and international partners.

One key activity of the Programming Committee is to maintain and update the Topic List and Topic Champions. Topic Champions are needed to: a) act as a general resource as an expert in their given area, b) identify timely symposia topics, and c) support specific symposium through identification of and/or mentoring of co-organizers.

Specific to this time of year, the Programming Committee is supporting Program Chair Julie Eble for the 256th ACS National Meeting to be held in Boston, Massachusetts, August of 2018, with over 35 planned symposia. As symposia are being finalized, please consider active participation through submitted talks and posters.

Vendor Interface Program (VIP). New for the Boston meeting, the Programming Committee is discussing creation of a new forum for interaction. The proposed goal is to provide vendors with an opportunity to interact specifically with AGRO members in a face-to-face setting within a designated time and hotel space. Vendors would each have a table with multiple seats to meetand-greet the membership and to display promotional materials. This type of event has been recommended by several of our members, so we are eager to make it a reality. Details and costs are still being worked out, but a letter of inquiry to potential vendor participants will be sent shortly.

Preparing for San Diego. Looking ahead, I am delighted to be your AGRO Division Program Chair for the 258th ACS National Meeting in San Diego in August 2019. Given the importance of agriculture in California and that the overall theme for this meeting is *The Chemistry of Water*, I anticipate numerous rich and meaningful symposia. In preparation, the AGRO division will continue the time-honored tradition of collecting programming ideas at the annual Program Planning Meeting, Blues and Brews Happy Hour, during the national meeting in Boston this August. We look forward to hearing from you in this fun, face-to-face live forum.

Finally, there is no need to wait until August. I would love to hear from members directly, so please feel free to contact me at cheryl.cleveland@basf.com if you have additional ideas on: Long Term Programming, the Topic Champions List, the new VIP pilot, or any ideas related to programming for the San Diego National meeting in 2019 or beyond.

Future ACS National Meetings

255th ACS National Meeting & Exposition March 18-22, 2018, New Orleans, Louisiana The Food, Energy, Water Nexus 256th ACS National Meeting & Exposition August 19-23, 2018, Boston, Massachusetts Nanoscience, Nanotechnology & Beyond 257th ACS National Meeting & Exposition March 31-April 4, 2019, Orlando, Florida Chemistry for New Frontiers 258th ACS National Meeting & Exposition August 25-29, 2019, San Diego, California Chemistry of Water 259th ACS National Meeting & Exposition March 22-26, 2020, Philadelphia, Pennsylvania Macromolecular Chemistry: The Second Century 260th ACS National Meeting & Exposition August 23-27, 2020, San Francisco, California Chemistry from Bench to Market 261st ACS National Meeting & Exposition March 21-25, 2021, San Antonio, Texas 262nd ACS National Meeting & Exposition August 22-26, 2021, Atlanta, Georgia 264th ACS National Meeting & Exposition

August 21-25, 2022, Chicago, Illinois

Thinking about organizing a symposium for a National Meeting?

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
- 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

AGRO Programming Committee Standing Programming and Champions Cheryl Cleveland, 2018 Programming Committee Chair

Additional Volunteers Needed for the 2019 San Diego Meeting

Contact: cheryl.cleveland@basf.com

PROGRAM AREAS

Advances in Agrochemical Residues, Analytical and Metabolism Chemistry, and Metabolomics Kevin Armbrust, armbrust@lsu.edu Lisa Buchholz, Imbuchholz@dow.com Tao Geng, tao.geng@monanto.com Mingming Ma, mma3@dow.com Leah Riter, Monsanto, leah.s.riter@monsanto.com Agricultural Biotechnology Jennifer Anderson, jennifer.anderson@pioneer.com Jeff Hughes, jeffrey.a.hughes@monsanto.com Molly Miller, molly.miller@basf.com Agriculture in Urban and Peri-urban Environments: Food Production, Structural Protection, Turf and Ornamentals, Water Reuse, and Down-the-Drain Chemistries Jay Gan, jgan@ucr.edu Pam Rice, pamela.rice@ars.usda.gov Agrochemical Toxicology and Mode of Action John Clark, jclark@vasci.umass.edu Ralf Nauen, ralf.nauen@bayer.com Air Quality and Agriculture Rod Bennett, rodbennettdac@gmail.com Christopher Bianca, chris.bianca@jrfamerica.com Cathleen Hapeman, cathleen.hapeman@ars.usda.gov Patrick Havens, phavens@dow.com Jim Seiber, jnseiber@ucdavis.edu **Biorational Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture** John Beck, john.beck@ars.usda.gov Joel Coats, jcoats@iastate.edu Aaron Gross, adgross@vt.edu **Developments in Integrated Pest Management and Resistance Management** Tory Anderson, tanderson44@unl.edu Jeff Bloomquist, jbquist@epi.ufl.edu Si Hyeock Lee, shlee22@snu.ac.kr **Discovery and Synthesis of Bioactive Compounds** Thomas Stevenson, thomas.m.stevenson@fmc.com John Beck, john.beck@ars.usda.gov **Ecosystem Exposure and Ecological Risk Assessment** Patrick Havens, phavens@dow.com Amy Ritter, rittera@waterborne-env.com Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals Saptashati Biswas, sbiwas.phd@gmail.com Jay Gan, jgan@ucr.edu Mingming Ma, mma3@dow.com Jayanta.nag, jayanta.nag@arysta.com Pam Rice, pamela.rice@ars.usda.gov

Formulation and Applications Technology Danny Brown, dmbrown@landolakes.com Patrick Havens, phavens@dow.com Jeff Hughes, jeffrey.a.hughes@monsanto.com Scott Jackson, Scott.Jackson@valent.com Erdal Ozkan, ozkan.2@osu.edu Matt Meredith, matthewmeredith34@gmail.com Ricardo Acosta Amado, racostaamado@dow.com Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial, and Worker **Protection Products** Steve Lehotay, steven.lehotay@ars.usda.gov Aaron Gross, adgross@vt.edu Teresa Wehner, t.a.wehner@att.net Human Exposure, Health, and Risk Assessment Cheryl Cleveland, cheryl.cleveland@basf.com Mike Krolski, mike.krolski@bayer.com Curt Lunchick, curt.lunchick@bayer.com Claire Terry, cterry@dow.com Nakia Smith, nakia.smith@syngenta.com Amy Ritter, rittera@waterborne-env.com Non-Food/Feed Production and Uses of Ag Commodities and Byproducts Tao Geng, tao.geng@monsanto.com Cathleen Hapeman, cathleen.hapeman@ars.usda.gov Pesticides, Pollinators, and Non-target Arthropods Allan Felsot, afelsot@wsu.edu Christopher Bianca, chris.bianca@jrfamerica.com Joe Wisk, joseph.wisk@basf.com **Regulations, Harmonization, and MRLs** Philip Brindle, philip.brindle@basf.com Heidi Irrig, heidi.irrig@syngenta.com Ken Racke, kracke@dow.com Nakia Smith, nakia.smith@syngenta.com Carmen Tiu, tcarmen@dow.com Science Communication Jennifer Anderson, jennifer.anderson@pioneer.com Cathleen Hapeman, cathleen.hapeman@ars.usda.gov Leah Riter, Monsanto, leah.s.riter@monsanto.com **Technological Advances and Applications in Agricultural** Science (e.g., Nanotechnology and Biocontrol Agents) Danny Brown, dmbrown@landolakes.com Tao Geng, tao.geng@monsanto.com Jeff Hughes, jeffrey.a.hughes@monsanto.com Rai Kookana, Rai.Kookana@csiro.au Mingming Ma, mma3@dow.com

GENERAL SESSION

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



PROGRAMMING & OUTREACH ACTIVITIES

2018 – 2020

Activity/Event	Leaders/ Champions	Status	Actions Required
2018 AGRO Lunch and Learn Webinar Series	Claire Terry	Seminars have been scheduled	Sign up to attend webinars
54 th North American Chemical Residue Workshop July 22 – 25, 2018 Naples, Florida www.nacrw.org	Steve Lehotay	 Program to be released in February 2018 Co-Sponsored by AGRO 	 Submit abstracts for oral presentations by April 15, 2018, and poster presentations by June 1
256th ACS National Meeting August 19 – 23, 2018 Boston, Massachusetts	Julie Eble	More than 30 symposia are being organized	 Submit abstracts at http://maps.acs.org Abstracts due March 12, 2018
2018 – 2019 AGRO Lunch and Learn Webinar Series	Claire Terry	Proposals for next season are welcome	Proposals for webinars are being accepted
14th IUPAC International Congress of Crop Protection Chemistry May 19 – 24, 2019 Ghent, Belgium www.iupac2019.be	Pieter Spanoghe pieter.spanoghe@ ugent.be	Details to be released later in 2018	 Check official website and sign-up for IUPAC 2019 News
258th ACS National Meeting August 25 – 29, 2019 San Diego, California	Cheryl Cleveland	 Watch the AGRO eNewsletter for planning session information at the Boston meeting 	 Volunteers and champions NEEDED!! Symposia proposals due November 15, 2018
260th ACS National Meeting August 23 – 27, 2020 San Francisco, California	2019 Vice Chair	 Watch the AGRO eNewsletter for planning session information at the Boston and San Diego meetings 	Volunteers and champions NEEDED!!

2018 Lunch and Learn Webinar Series



Geoff Scott, University of South Carolina Urbanization and Climate Change: A Recipe for Disaster for Coastal Ecosystem and Human Health Co-organized with ACS Environmental Chemistry Division

Moderated by George Cobb, Baylor University February 1, 2018, at 12:00 PM EST (5PM GMT)



Jeff Bloomquist, University of Florida Mechanisms of Synergism for Increased Insecticidal Action Winner of 2017 ACS International Award for Research in Agrochemicals

Moderated by John Clark, U. Massachusetts, Amherst March 14, 2018, at 12:00 PM EST (5PM GMT)



Judy LaKind, LaKind Associates, LLC Carol Burns, Cian O'Mahony, Crème Global & Carol Burns, Burns Consulting

> Exposure Data Quality in Environmental Epidemiology: 2,4-D as a Case Study

Moderated by Ken Racke of Dow AgroSciences April 11, 2018, at 12:00 PM EST (5PM GMT)

Check the website for more information - www.agrodiv.org



SPECIAL THANKS TO OUR SPONSOR FOR THEIR GENEROUS CONTRIBUTION!

Save The Date July 22-25, 2018



55th North American Chemical Residue Workshop www.NACRW.org Naples Grande Beach Resort Naples, Florida

Bringing Scientists together to develop and validate better methodologies



NORTH AMERICAN CHEMICAL RESIDUE WORKSHOP



CROP PROTECTION CHEMISTRY

CROP PROTECTION: EDUCATION OF THE FUTURE GENERATION



scientific themes in crop protection iupac2019.be

Belgium has most castles/ square km in the world









hour by train to visit Bruges, Brussels or Antwerp



delegates from 51 different countries





presentations

oosters



The International Union of Pure and Applied Chemistry (IUPAC) will celebrate its Centenary throughout 2019

Participate in the Celebration!



• Periodic Table of Younger Chemists

Nominate a young chemist who embodies the mission and core values of IUPAC. Nominations to open in February 2018

• Periodic Table Challenge

Test your knowledge of the elements and compete with chemists around the globe. Launches in January 2019

• Global Women's Breakfast Join in a global networking event on a single day in 2019

Essential Tools

Learn more about the essential tools for chemists that have been developed by IUPAC volunteers

Plan Your Own Event
 Register your event on the IUPAC100 calendar

Check out www.iupac.org/100 for more details

Tell us your IUPAC story on Twitter @IUPAC or on Facebook #IUPAC100

AGRO Division Officers, Councilors, and Executive Committee

AGRO DIVISION OFFICERS



Division Chair Scott Jackson 925-948-2934 scott.jackson@valent.com



Program Chair Julie Eble 484-431-6978 julie.eble@eblegroup.com julie.eble@agrodiv.org



Vice Chair Cheryl Cleveland 919-547-2407 cheryl.cleveland@basf.com



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



Treasurer

Del A. Koch 660-248-1911 dkoch@agrodiv.org

AGRO Division Past Chairs

Henry J. Dishburger

1969	Donald G. Crosby
1970	Elvins Y. Spencer
1971	Wendell Phillips
1972	Philip C. Kearney
1973	Roger C. Blinn
1974	Charles H. Van Middelem
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 lvie
1984	Robert M. Hollingsworth
1985	John Harvey, Jr.

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

1986

COUNCILORS

Rodney Bennett, rodbennettdac@gmail.com Jeanette Van Emon, vanemon.jeanette@epa.gov Kevin Armbrust, Alternate, armbrust@lsu.edu Stephen Duke, Alternate, stephen.duke@ars.usda.gov

EXECUTIVE COMMITTEE MEMBERS

2016 – 2018

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

2017 - 2019

Michelle Hladik, mhladik@usgs.gov Qing Li, qingl@hawaii.edu Kalumbu Malekani, kmalekani@smithers.com Paul Reibach, preibach@smithers.com Amy Ritter, rittera@waterborne-env.com

2018 – 2020

John Beck, john.beck@ars.usda.gov Aaron Gross, adgross@vt.edu Leah Riter, leah.s.riter@monsanto.com Yelena Sapozhnikova, yelena.sapozhnikova@ars.usda.gov Tianbo Xu, tianbo.xu@bayer.com

2003 2004	Jeanette Van Emon 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
2017	Jay Gan

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 committee members are being sought

AGRO Division Committees

AWARDS COMMITTEE

James Seiber, Chair, 530-752-1141, jnseiber@ucdavis.edu MEMBERS: John Casida, Janice Chambers, John Marshall

Clark, Joel Coats, Steve Duke, Bruce Hammock, Ernest Hodgson, Robert Hollingworth, Ralph Mumma, Hideo Ohkawa, Sharon Papiernik, Nancy Ragsdale, Will Ridley, David Soderlund, Don Wauchope, Izuru Yamamoto, Scott Yates

Bylaws Committee

Rodney Bennett, rodbennettdac@gmail.com Jeanette Van Emom, vanemon.jeanette@epa.gov

COMMUNICATIONS COMMITTEE

Cathleen Hapeman, Chair, *PICOGRAM* Editor 301-504-6451, cathleen.hapeman@ars.usda.gov Jeff Jenkins, Public Relations 541-737-5993, jeffrey.jenkins@oregonstate.edu Laura McConnell, Co-Webmaster 919-549-2012, laura.mcconnell@bayer.com Sharon Papiernik, Awards Coordinator 605-693-5201, sharon.papiernik@ars.usda.gov Leah Riter, Social Media Coordinator 636-737-9331, leah.s.riter@monsanto.com Yelena Sapozhnikova, eNewsletter Coordinator 215-233-6655, yelena.sapozhnikova@ars.usda.gov Claire Terry, Co-Webmaster 317 337 3493, cterry@dow.com

DEVELOPMENT COMMITTEE

Carmen Tiu, Co-Chair, 317-337-4941, tcarmen@dow.com James Foster, 925-948-2930, james.foster@valent.com Scott Jackson, 925-948-2934, scott.jackson@valent.com Del Koch, Ex Officio/Treasurer, 660-248-1911 dkoch@agrodiv.org Laura McConnell, Webmaster, 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, 515-294-4776, jcoats@iastate.edu Del Koch, Ex Officio/Treasurer, 660-248-1911 dkoch@agrodiv.org *MEMBERS:* Kevin Armbrust, Al Barefoot, Barry Cross, Scott Jackson, Ken 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, Chris Peterson, Amy Ritter, Jim Seiber, Keith Solomon, John Unsworth

MEMBERSHIP COMMITTEE

Leah Riter, Chair, 636-737-9331, leah.s.riter@monsanto.com *MEMBERS:* John Beck, Steven Lehotay, Daniel Swale

2018 NOMINATING COMMITTEE

Jay Gan, Chair, 951-827-2712, jgan@ucr.edu Pamela Rice, 612-624-9210, pamela.rice@ars.usda.gov Cathleen Hapeman, 301-504-6451 cathleen.hapeman@ars.usda.gov

PROGRAMMING COMMITTEE (see p. 60 for listing)

Cheryl Cleveland, Chair, 919-547-2407 cheryl.cleveland@basf.com

Webinar SubCommittee

Claire Terry, Chair, 317-337-3493, cterry@dow.com MEMBERS: John Clark, Steve Duke, Laura McConnell

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@fmc.com

STRATEGIC PLANNING COMMITTEE

To be reconstituted

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, multiyear 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

AGRO Division Combined Governance Meeting Sunday, August 20, 2017, 5 PM Washington Renaissance Hotel Penn Quarter Room

Minutes

Sharon Papiernik, Secretary; Leah Riter, Recorder

ATTENDANCE

- Officers; Scott Jackson, Program Chair; Julie Eble, Vice Chair; Del Koch, Treasurer; Rodney Bennett, Jeanette Van Emon, Councilors; Aldos Barefoot, Kevin Armbrust, Alt. Councilors
- *Executive Committee Members (EC):* Cheryl Cleveland, Michelle Hladik, Heidi Irrig, Qing Li, Mike Krolski, Paul Reibach, Leah Riter, Amy Ritter, Tom Sparks, Tom Stevenson
- *Committee Chairs:* Diana Aga, Joel Coats, Cathleen Hapeman, Steve Lehotay, Laura McConnell, Ken Racke
- Guests and Committee Members: Andrew Coates, Steve Duke, Aaron Gross, Edmund Norris, Martin Ruebelt, Collin Wang
- 1. Introductions and welcome Julie Eble
- 2. Roll Call Leah Riter
- **3. Programming/program chairs** Scott Jackson, Julie Eble, and Peney Patton
 - Washington, DC Programming Scott Jackson a. Challenges encountered this year were discussed to make improvements for next year. Program Chair suggests pairing experienced symposia chairs with new volunteers that have never chaired a symposium. Additionally, it was suggested that we implement a process where symposia chairs review guidance and sign a document that they understand the rules of chairing symposia. Issues encountered this year included following financial guidance (only reimbursement for early registration fee), proper communication with invited speakers what fees and travel expenses for which they will be responsible, and reimbursement process (documentation needed and timing).
 - b. Boston Programming *Julie Eble* Discussed in Programming Committee report
 - c. Program Administration Peney Patton The AGRO half-day support (\$500) is no longer enough to pay one Full Meeting registration (\$535) or two 1-day registrations (\$270 each). As a division, we may want to reconsider the session allotment amount. The group discussed the options for potentially increasing the support provided by AGRO for symposia. Although the \$500 is more than most divisions provide, it is no longer enough to pay one full meeting registration (\$535) or two 1-day registrations (\$270 each). It was noted that organizers can find other sources of funding such as symposium sponsors. The idea of a more centralized way that allows more flexibility could be implemented in

the future since funding needs depend on the type of symposium.

MOTION: AGRO should increase the allotment for each session organizer from \$500 to \$700 for 1 year only. The Division will conduct a thorough analysis for subsequent years. Passed.

4. Elections – Cathleen Hapeman

Nomination Committee reports that the election was held in June. Officers and Executive Committee members are as follows: 2018 Vice Chair: Cheryl Cleveland, 2018 Secretary: Sharon Papiernik, 2018 Treasurer: Del Koch, 2018-2020 Councilors: Rodney Bennett and Jeanette Van Emon, 2018-2020 Alternate Councilors: Kevin Armbrust and Stephen Duke, 2018-2020 Executive Committee Members: John J. Beck, Aaron Gross, Leah S. Riter, Yelena Sapozhnikova, and Tianbo Xu, New 2017-2019 Executive Committee Member: Kalumbu Malekani.

- 5. Strategic Planning Julie Eble and Ashli Brown Johnson (Ashli not attending)
 - a. Goal 1 Outreach Steve Duke

A group of volunteers met to execute strategic planning goal 1. Their recommendation was to form an AGRO liaison committee to collaborate with other organizations. Liaisons who are members of both AGRO and partner organizations will be used to develop partnerships with other organizations. Approximately 20 partner organizations have been identified at this point. Partnership Committee needs to be formally instituted.

MOTION was raised to institute. Vote passed. A teleconference is planned for this fall to kick off this effort.

- b. Goal 2 - Membership - Steve Lehotay Membership committee chair Steven Lehotav summarized the membership statistics that can be found in the membership committee report. AGRO currently has 1271 members. A survey has been prepared, but has been postponed due to other surveys in progress for AGRO division. The idea of better logistics to sign up as a member was discussed; however, the current system is standardized across all divisions. Membership committee will evaluate routes for recognition for symposia chairs and design of a member centric web design so people can sign up, or the committee can be more interactive in the future. MOTION: Leah Riter will assume the membership committee chair position. Passed.
- c. Goal 3 Programming Julie Eble The progress of the programming committee was reviewed, including launch of strategic multi-year planning. Details can be found in the programming committee report.
- Communication path forward Julie Eble The team discussed the observation that communication gaps have created gaps in organizational knowledge and energy. Communication strategy is summarized in *PICOGRAM* and website; Program Chair will touch on it at Blues and Brews and social.
- 6. Co-sponsored meetings: NACRW Steve Lehotay AGRO and the North American Chemical Residue Workshop have traded ads in the *PICOGRAM* and NACRW program

book for many years, and we can expand upon this fair trade relationship. Just as AGRO sponsors the Latin American Pesticide Residue Workshop poster awards, we have the opportunity to do the same with NACRW. MOTION: AGRO and NACRW will exchange \$1,000 worth of sponsorship with each other: AGRO will sponsor \$250 for NACRW poster awards (two at \$125 each) and \$750 for

7. Treasurer's Report - Del Koch (ACS report - \$0 entries removed)

sponsorship to include NACRW putting AGRO on their website and on the relevant poster awards. In return, AGRO will provide the \$1,000 equivalent for NACRW to sponsor two sessions of its choice on the AGRO program each year. NACRW will be listed as the sessions' sponsor on the web and the program book as is standard for sponsored sessions. Passed.

Income	2016	2017 to Date	2018 Budget?
1. Contributions			
A. Meeting Grants	\$20,000.00	\$6,500.00	\$20,000.00
B. Meeting Awards	\$19,000.00	\$4,000.00	\$15,000.00
E. Innovative Project Funding	\$2,000.00	\$7,500.00	\$5,000.00
F. Donations	\$15,000.00	\$8,965.00	\$15,000.00
G. Other Contributions (webinar sponsor)	\$6,000.00	\$6,000.00	\$6,000.00
H. New Member Commissions	\$195.00	\$75.00	\$200.00
I. Rebate from ACS for Councilor Travel	\$5,314.52	\$2,269.19	\$5,000.00
Total Contribution Income	\$67,509.52	\$35,309.19	\$66,200.00
2. Membership Dues			
A. February Dues Payment	\$8,111.00	\$8,693.08	\$8,700.00
B. August Dues Payment	\$6,171.42	\$0.00	\$6,300.00
D. Annual Division Allocation from ACS	\$30,376.28	\$18,967.99	\$25,000.00
Total Dues and Assessment Income	\$44,658.70	\$27,661.07	\$40,000.00
5. Conferences/Workshops/Meetings			
Conferences/Workshops/Meetings	\$7,187.99	\$0.00	\$0.00
Total Income from Conferences	\$7,187.99	\$0.00	\$0.00
6. Investment Income (Operating Account)			
B. Dividend and Interest from Securities through 6/30/17	\$42,954.95	\$47,006.33	\$25,000.00
Total Investment Income	\$42,954.95	\$47,006.33	\$25,000.00
8. Royalties			
Royalties	\$1,682.10	\$152.08	\$1,500.00
13. All Other Revenue			
All Other Revenue (reversal of wire transfer)	\$16,479.00	(\$16,466.50)	\$0.00
Total All Other Revenue	\$16,479.00	(\$16,466.50)	\$0.00
TOTAL INCOME FROM ALL ACTIVITIES	\$180,472.26	\$110,128.67	\$132,700.00
Expenses	2016	2017 to Date	2018 Budget?
4. National Meeting Expenses			
A. Speaker Fees and Per Diem	\$33,836.65	\$1,660.00	\$35,000.00
B. Guest Registrations	\$3,745.00	\$0.00	\$4,000.00
C. Speaker Breakfast/Lunch/Dinner	\$1,000.00	\$0.00	\$0.00
D. Other Speaker Costs	\$0.00	\$0.00	\$0.00
E. Planning Expenses	\$12,760.96	\$4,469.00	\$10,000.00
F. Social Events	\$26,949.53	\$0.00	\$27,000.00
G. Audio/Visual Equipments	\$2,575.77	\$0.00	\$7,000.00
H. Other	\$5,394.13	\$2,318.62	\$5,000.00
Total National Meeting Expenses	\$86,262.04	\$8,447.62	\$88,000.00
Expenses (continued)	2016	2017 to Date	2018 Budget?
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5. Investment Expenses			
Investment Expenses	\$2,341.23	\$0.00	\$2,500.00
Total Investment Expenses	\$2,341.23	\$0.00	\$2,500.00
7. Publication Expenses			
B. Newsletters/Ballots - printing	\$24,039.30	\$10,220.00	\$25,000.00
E. Postage and Shipping	\$7,923.85	\$4,520.94	\$10,000.00
Total Publication Expenses	\$31,963.15	\$14,740.94	\$35,000.00
8. Conferences / Workshops/ Meetings			
B. Other Activities (2016 Web/Pacifichem 2017 Web/Peru Lect)	\$18,762.39	\$9,800.00	\$7,000.00
Total Conferences/Workshops	\$18,762.39	\$9,800.00	\$7,000.00
9. Administrative Expenses			
C. Councilors	\$6,900.50	\$3,242.44	\$7,000.00
D. National Meeting Travels/Meals	\$1,060.64	\$773.93	\$6,500.00
E. Communications (Postage, website, telephone, etc.)	\$4,889.93	\$3,164.97	\$5,000.00
F.DLC/P2C2 Expenses	\$742.20	\$0.00	\$1,500.00
G. Office Supplies and Operations (checks, misc.)	\$23.70	\$0.00	\$50.00
Total Administrative Expenses	\$13,616.97	\$7,181.34	\$20,050.00
10. Other Expenses			
Other Expenses (wire fees)	\$25.00	\$190.00	\$500.00
Total Other Expenses	\$25.00	\$0.00	\$500.00
TOTAL EXPENSES	\$152,970.78	\$40,169.90	\$150,550.00
GAIN (LOSS), OPERATING ACCOUNT	\$27,501.48	\$69,958.77	-\$17,850.00

- 8. Councilor's Report Jeanette Van Emon and Rod Bennett
 - a. Last national ACS meeting in San Francisco showed good acceptance of electronic programming. The meeting had 19K attendees, with 15K downloads of mobile application, and 2.5K purchase of paper copies program. New mobile application will be launched before the next meeting in New Orleans.
 - b. This meeting had approximately 11,600 attendees with 282 exhibitors. ACS is considering ways to increase traffic on expo floor. While overall ACS meeting attendees are decreasing, student attendees are rising. The national meeting has 120 concurrent sessions, which causes increased expense, AGRO Division may want to think strategically about the number concurrent sessions we host.
 - c. To encourage retention of ACS members, ACS is considering an auto-renewal of membership as some people who allow their memberships to lapse report that it is unintentional.
 - d. Our Councilor who serves on the ACS Committee for Divisional Affairs (DAC) encouraged AGRO to increase number of IPG applications up to 2 IPG per year and suggested that AGRO can collaborate with other divisions to increase chance of funding. ACS website is going through revision soon.
 - e. Divisions should get predominant positions on website, will have a news feed interface. DAC website will now have access of program and membership committee across divisions.

f. In the recent past, AGRO has had several issues with ACS regarding programming, etc. Councilors urged that when issues arise, AGRO members should contact them, and they will try to help resolve them.

9. Secretary's Report – Sharon Papiernik

- a. AGRO provided these comments to the DAC regarding potential changes to the Division Allocation formula (discussed in Councilor's Report?), "We interpret the new programming formula to include no direct tie-in to the number of symposia, or the number of oral presentations. We consider these items more deserving of incentivization than the number of attendees at the oral sessions for a couple reasons. First, either of these would be a straightforward metric, whereas the attendance is subject to estimation error. Second, the total attendance at concurrently-held sessions might be artificially low due to those attendees who would have attended another session as well, had it not been concurrent. Our opinion is that the diversity, breadth, and number of oral programming sessions are things that should be rewarded. Barring this sort of change, perhaps the number of members attending and number of posters presented could be given equal weight as total attendance (i.e., 33.3% each)."
- b. John Johnston and Heidi Irrig submitted an IPG proposal that was approved for funding in the amount of \$7,500, Agrochemical Outreach: Education, Networking and Career Enhancement.

- c. 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 Washington, DC, meeting.
- **10.** Awards Committee Jim Seiber
 - a. See PICOGRAM for full report.
 - b. Instructions and deadlines for award nominations are in *PICOGRAM*. The Vice Chair is responsible for ensuring nominations of 2 AGRO members for AGRO Fellow.
 - c. Spencer award (sponsored by KC section of ACS). Cosponsored by AGFD and AGRO. Eckhard Hellmuth (coordinator) suggested that Steve Duke be on committee.

MOTION: Steve Duke is AGRO's appointee for the Spencer Award committee; requesting confirmation from EC. Vote to confirm passed.

- **11. Communications** Cathleen Hapeman
 - a. PICOGRAM

Spring and Fall *PICOGRAM* were published in 2017. An outline of the Strategic Plan appeared in both issues.

- Webmaster Laura McConnell Claire Terry from Dow working with Laura on updating. She will take over as lead for webinars. Looking for people to help with webinar series. Considering next generation of technology to update webinar series, consult with ACS.
- c. eNewsletter is run by Yelena Sapozhnikova. Send all announcements directly to Yelena.
- d. Social media *Leah Riter* Leah needs content; please send pertinent information to Leah.

12. Programming Committee Report – Julie Eble

a. Committee Structure

The analysis from the Strategic Planning indicated that AGRO programming should cover multiple years. Although this is not a new suggestion for AGRO, implementation has been lacking. The single issue that contributes most significantly to problems with implementation is the loss of organizational knowledge due to new officers who spend one year in each of their four roles and then roll off. To address this issue, the committee determined that, while the Programming Committee membership will continue to be established anew by the Vice Chair each year, that membership will include three long-term members representing academia, industry, and government who will serve a minimum of three years. All other members serve a one-year term. The three long-term members who have agreed to serve in this capacity are:

- John Clark Academia
- Ken Racke Industry
- Cathleen Hapeman Government
- b. In addition, the Committee established the role of Liaisons to fulfill responsibilities in the areas of: Inter-Divisional Programming, Hot Topics and Educational Programming, National and International Activities, and Inter-Divisional Programming. These roles are currently being performed by:
 - International Activities Ken Racke
 - Educational Programming John Clark
 - Hot Topics Aaron Gross

- Interdepartmental Programming Open
- National Programming Open
- c. Multi-year focus: Changes to Op Manual, Liaisons, Champions, Survey
 - i. A full description of these changes including the duties of the liaisons has been prepared, discussed at the March Committee meeting, and submitted for updating of the Operational Manual available on the AGRO website.
 - ii. Peney Patton and Mike Krolski prepared a multiyear listing of programming spanning five years based on listings where we have attendance data. These listings were submitted to existing topic champions for review and approval. Subsequent analysis indicated that several symposia were missing from the compiled list as a result of missing attendance forms. In addition, multiple topic champions are now inactive and/or unresponsive. The committee subsequently decided to revise the list of topics to make them more meaningful and to solicit more broadly for interested topic champions.
 - iii. Under the premise that members may be more likely to see themselves as champions for a narrower topic and to give clearer focus to topics which historical data showed a high level of interest, the committee revised the list which now includes 17 topics. To obtain broader exposure to candidates for topic champions, we approached the ACS about polling our members. The results will be compiled and published in the *PICOGRAM*. See Appendix 1.
- d. Educational and Hot Topic Liaisons John Clark and Aaron Gross
 - i. ACS also recently provided the Liaison for Educational Programming, John Clark, results from an additional survey of our membership on their interests in this area. The results of the survey are included as Appendix 2.
 - ii. These results, the results of the Outreach Goal from the Strategy Planning Session on partners (Goal 1 Strategy 2), and input from discussion at the business meeting will be used to complete Goal 3 Strategy 3, which has an expected delivery date of 12/31/2017. That Strategy is "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."
 - iii. Attended the Society of Toxicology National Meeting in Baltimore, Maryland, 3/11-16/2017. Attended a satellite educational conference on Metabolic Syndrome and talked with a number of educational symposium organizers. These are highly focused sessions, usually attended by industry individuals needing certification or credits in some fashion. Very expensive, \$800-1000 per person per session. I think that some AGRO members, like me, would be interested in attending these workshops/seminars, but I do not think we

will have the numbers necessary to make it pay for itself as of now.

- iv. Will attend the National ESA meeting in Denver this fall. Have spoken with Professor Kun Yan Zhu, Kansas State University, who will Chair Session B, Insect Physiology. Biochemistry and Toxicology, and is interested in interaction with AGRO. We will develop a plan at this meeting.
- e. International Liaison Ken Racke
 - The Outreach Goal Committee is now finalizing its charter. The decisions from this group will identify key partners and have much positive impact on improved multi-year programming in numerous topic areas. Interactions between the two committees will build a broad base for our organizational knowledge and will be another method to foster a longer term view of programming.
 - ii. Other international efforts are handled by the International Committee. Our liaison, Ken Racke, keeps the committee informed (details covered in international committee report).

13. Development (Public Relations) – Scott Jackson

- Carmen Tiu has taken over as chair of the development committee. James Foster from Valent has also joined. Additional members are welcome.
- Fundraising: 22 patrons sponsored 24 events at ACS 2017, for a total of \$52,495. This is a 44% increase relative to 2016.
- 14. Early Career Scientist (Education) Diana Aga/Marja Koivunen
 - A total of fifteen applications for travel grants were received by the deadline. Besides students with poster presentations, advanced grad students with an oral presentation were also eligible for the travel awards. Based on the extended abstracts and letters of recommendation, all fifteen applicants were selected to receive an \$825-travel award (\$600 to help with the travel and accommodation costs plus \$225 as a re-imbursement for conference registration cost). The amount of travel funds awarded to 11 posters and 4 oral presentations this year totaled \$12,375.
 - 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.
 - 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, 2nd 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. All students willing to give an oral paper instead of a poster confirmed their eligibility beforehand as advised in the call for abstracts.

15. Finance Committee - Joel Coats

- a. The investment portfolio of the Agrochemicals Division is doing very well. As of the end of the last quarter, our Educational Trust Fund has \$477,000 in it; our Spectrum Income Fund has \$173,000 in it. These investment assets total \$650,000. Before the 2008 recession, the total value was \$580,000, but as of the end of 2008, its value was \$415,000. Since that time, our portfolio has grown by 57% to the current value of \$652,000.
- b. The Educational Trust Fund is managed by J.P. Morgan; 80% of it is in stocks (large caps, index funds, and global equities); the other 20% is in cash and fixed income instruments, mostly bonds. The growth of this fund from the end of 2008 till the most recent quarter was 77%.
- c. The Spectrum Income Fund is managed by T. Rowe Price. It has experienced a 42% increase in value since the end of 2008.

16. International Activities Committee – Ken Racke/Jay Gan

- a. Recent activities: 6th Latin American Pesticide Residue Workshop, San Jose, Costa Rica (14-17 May 2017). There were about 500 attendees from across Latin America. About 170 papers were presented (3/4 were posters), and AGRO sponsored two \$500 poster awards. The IUPAC-organized risk assessment workshop that included several AGRO members (Felsot, Ritter, Solomon, Unsworth) included 40 participants from 13 countries. See https://laprw2017.fundacionucr.ac.cr/index.php/en-us and read the workshop report by Steve Lehotay on page 54 in Vol 92 of the *PICOGRAM*.
- b. Future Plans
 - i. Based on new AGRO Strategic Plan, the Committee wishes to establish relationships with international organizations leading to 3 symposia during the next 3 years
 - ii. AGRO Programming at ACS National Meeting in Boston, MA, 19-23 August 2018: Potential for inclusion of the IUPAC Award for Advances in Harmonized Approaches to Crop Protection Chemistry to include the award presentation and associated symposium. Will be seeking an international co-sponsor for this event.
 - iii. 7th Latin American Pesticide Residue Workshop will be held in Brazil in the spring of 2019: Continuing sponsorship of poster awards by AGRO will be proposed
 - iv. 14th IUPAC International Congress of Crop Protection Chemistry, 19-24 May 2019, Ghent, Belgium: Previously planned for Brazil in 2018, however organizers withdrew plans. Lead organizer is Pieter Spanoghe of the University of Ghent (pieter.spanoghe@ugent.be). Laura McConnell and Ken Racke are members of the Organizing Committee. Will explore ways that AGRO can be most highly involved. Consider organizing a "pre-Belgium" symposium at the 2018 Boston ACS meeting. See www.iupac2019.be
 - v. Pacifichem 2020, Honolulu, Hawaii, December 2020: The International Chemical Congress of Pacific Basin Societies. AGRO planning a major

involvement with Pacifichem in lieu of the *Pan-Pacific Pesticide Conference*, previously coorganized by AGRO. Draft symposium proposals to be developed by end of 2017. Contact International Committee with ideas. ACS organizing contact is Diane Ruddy.

- vi. Seeking possible collaboration with other international partner organizations. Initial contact made with EuCheMs (European Chemical Sciences), which sponsors International Conference on Chemistry and the Environment (ICCE). Laura McConnell is contact for this activity.
- vii. Laura McConnell is co-chair of IUPAC 2019 Conference (100th anniversary of IUPAC), which will enable collaborations with AGRO. There will be on-line activities all year. They're trying to get the UN to approve the International Year of the Periodic Table. Rodney Bennett suggests that the team consider IPG for international collaborations.

17. Membership Committee – Steve Lehotay

- a. Membership in AGRO, currently at 1271, has stopped the long decline and has slowly increased since 2005. The free AGRO memberships given in 2008 and 2014 to FPRW and IUPAC attendees, respectively, probably helped somewhat to increase membership. Membership logistics with ACS need improvement. Membership tracking spreadsheet templates and plots have been prepared for continuation in the future. If desired, data gaps in the historical record may be filled if the documentation is gathered.
- b. The membership committee now has its own email address (membership@agrodiv.org).
- c. The outgoing committee chair stressed that AGRO needs to improve communications between committees and among membership in AGRO. AGRO would benefit from a Volunteer Coordinator to know what tasks need to be done and find volunteers to do the tasks.
- IPG Updates Daniel Swale/Lacey Jenson (Cathleen Hapeman reporting), Julie Eble/Ashli Brown Johnson, John Johnston/Heidi Irrig
 - a. IPG for New Investigators' Symposia Cathleen Hapeman
 - This has been completed and final report filed.b. IPG for Strategic Planning *Julie Eble*
 - This has been completed and report will be filed. c. IPG for Agrochemical Outreach: Education, Netwo
 - c. IPG for Agrochemical Outreach: Education, Networking and Career Enhancement – John Johnston This symposium to be held Tuesday focuses on how federal agencies work together to assure safety of pesticides. Staffers from Capitol Hill have paid registrations; graduate student awardees invited to learn about career opportunities. Trade groups and pesticide companies are invited. Amazon gift card raffles are planned to encourage attendance. Survey will be used for assessment of success. Depending on feedback, may design an overview for Capitol Hill attendees.

19. Comments from Attendees

a. New ACS Position Statement on Chemical Risk Assessment and Regulatory Decision Making – *Laura McConnell*

- b. Diana Aga suggested that letters of appreciation be sent to the immediate supervisors of committee chairs and co-chairs as acknowledgment of the value they bring to AGRO. The idea was warmly received by the group, and a formal vote was deemed not necessary to implement.
- 20. Transfer of Chair, Recognition of Outgoing Chair Gavel was passed to Scott Jackson. Papiernik will mail a certificate to Jay Gan to recognize his service as Division Chair.

AGRO Conference Call December 11, 2017, 12 -2 PM CST Minutes

Sharon Papiernik, Secretary

ATTENDANCE

- *Officers*; Scott Jackson, Chair; Julie Eble, Program Chair; Cheryl Cleveland, Vice-Chair; Jay Gan, Past Chair; Del Koch, Treasurer; Sharon Papiernik, Secretary; Rodney Bennett, Councilor; Stephen Duke, Alt. Councilor
- Executive Committee Members (EC): John Beck, Aaron Gross, Michelle Hladik, Qing Li, Paul Reibach, Leah Riter, Amy Ritter, Yelena Sapozhnikova, Thomas Sparks,Thomas Stevenson, Carmen Tiu
- Committee Chairs and Members: Cathleen Hapeman, Marja Koivunen, Laura McConnell, Pam Rice
- 1. Follow-up from DC Business Meeting Peney Patton/Julie Eble:
 - a. Peney has been following up on letters of appreciation to be sent to supervisors of AGRO committee chairs and officers. Not all AGRO volunteers have responded to provide the mailing address of their supervisors. If people haven't responded with that information, then the letter will be sent to the volunteer only.
 - b. Letters of appreciation will not be sent to symposium chairs for the 2017 program because we have little information to go on. This would be an option for 2018 if the appropriate information would be gathered. Patton and Eble will try to get a form together to enable letters of appreciation to be sent to supervisors of symposium organizers in 2018.
 - c. Discussion suggested that this should be formalized to ease the process, and perhaps should be incorporated into the Operations Manual.

ACTION: Rodney will add to the Operations Manual a process for letters of appreciation.

- 2. Program Chair report Julie Eble
 - a. Poster Session
 - i. Eble spoke with Karen Miller (new ACS director of Meetings and Expositions) and had a follow-up with another ACS M&E staffer, Nicole Fisher, regarding having a vendor exhibition in Boston near AGRO programming at the hotel. Eble expressed appreciation that in recent years the AGRO poster session was located at the hotel,

near AGRO oral talks. Fisher indicated the posters will only be at the exhibition hall in the future. Eble requested that AGRO programming be hosted in a hotel close to the exhibition hall, especially if they are going to insist that the AGRO poster sessions be held at the exhibition hall. Miller and Fisher stressed that AGRO will be within walking distance. We are also requesting to be co-located with ENVR.

- ii. Rodney Bennett and others reminded the participants that in recent years AGRO has indeed located our poster and oral sessions in the same hotel. Cathleen Hapeman stated that AGRO has had good success with all posters being in a separate session that exceeds 2 hours and with no oral talks scheduled at that time; she encouraged Eble to consider scheduling the programming in a similar way in 2018.
- iii. Eble requested the assistance of the Councilors in bringing AGRO's request to ACS. Bennett suggested that one specific request be taken to ACS for consideration. The requests might be different if we are located at the convention center versus a hotel. A participant noted that last year, the AGRO-only poster session was in a huge room; it made the poster session seem very small. The question was raised whether posters be colocated with ENVR or have the room appropriately sized for the number of posters. ENVR's poster session is Wednesday evening. There are issues outside the control of ACS or AGRO regarding hotel staffing, room options, etc.

ACTION: Hapeman will provide information to Eble and Patton on where poster sessions were held in previous years to provide evidence of precedence.

ACTION: Patton, Eble, Bennett, and Van Emon will negotiate with ACS Meetings and Expositions regarding the location of AGRO posters; that group is given tacit approval to make the determination on the best solution.

3. AGRO Vendor Exhibition in Boston – Julie Eble

- a. Eble reported that Miller and Fisher from ACS presented 2 different suggestions regarding an agriculture-specific vendor exhibition: (a) A pavilion at the exhibition center that would include vendors with tabletop exhibits, or (b) Vendors could sponsor a breakfast or lunch session within AGRO. For example, they could pool their money to fund the food and drinks and have an open house reception in which the contributing vendors provide tabletop displays to discuss their services with potential customers. This could be held at the AGRO hotel.
- b. Attendees expressed support for an event at the AGRO hotel. Several participants have attended conferences with a structure like this. It connects appropriate vendors/service providers to the technical programming but keeps salesmanship out of the technical program. Vendors who don't have the resources for dedicated sponsorship could pool their resources to get face time with potential customers. It's a great opportunity for people to get together. Could posters also be located in this room immediately before/after/during the open house? It may be advisable to have sponsors

coordinate with hotel directly on the details regarding room assignment, food, etc. If this is a success, in future years, this should be coordinated through the Development committee to avoid confusion; perhaps this could be offered as part of sponsorship packages.

ACTION: Eble and Cheryl Cleveland will assemble a small team (to include Paul Reibach, Leah Riter, others?) to identify potential vendors, check into options, and provide information to sponsors who will organize a reception. Sponsors can weigh in at will throughout the process.

4. Sponsorship – Carmen Tui

- a. Sponsorship in 2017 was a success, so the same process will be followed in 2018. A letter was sent to sponsors, the list being based on previous sponsorships. Tui asked for updates on levels of sponsorship, and new/different names to add to mailing list.
- b. Hapeman needs by January 5 a list of entities purchasing advertisements in the spring Picogram. Ad content is needed by January 15. Tui did not solicit any ads for the spring Picogram and didn't know she should be. Laura McConnell noted that in previous years, she sent a letter to spring Picogram advertisers asking if they wanted to continue. Tui indicated that she and a volunteer (James Foster from Valent) would be happy to take this into the Development committee given the appropriate guidance.

ACTION: Carmen and Laura will resolve offline the solicitation of advertisements for the spring Picogram.

c. Typically, a blanket request is sent to sponsors without specifying spring or fall sponsorship. It is difficult to keep track of who wants what and when. McConnell is interested in an online form for sponsorship so that sponsors could choose options, upload ad copy, and be invoiced. She recently approached the AGRO website developer and they responded that they could provide this service, but no further details are available at this time.

ACTION: McConnell will get more information from the web developer regarding online sponsorship forms. She will report back to the group at the next meeting.

5. Programming for Boston – Julie Eble

Eble reported that she received 33 draft calls for papers for Boston. There are some areas in which she did not receive any symposium proposals. The proposals are very strong on environmental fate (5 symposia). She has reached an agreement with ENVR for co-sponsorship of 4 symposia: 2 with ENVR as lead and 2 with AGRO as lead. In this equal arrangement, there would be no exchange of funds required.

6. Partnership with SETAC - Pam Rice

a. Pam Rice reported on progress with SETAC regarding co-programming. SETAC is co-sponsoring 2 symposia in ENVR's program concerning issues of emerging contaminants in water. Question: AGRO could provide nominal sponsorship, but should AGRO collaborate on these sessions to stimulate collaboration with SETAC? We could switch the sessions we co-sponsor (instead of the 2 already identified) or co-sponsor these in addition. Although these SETAC-sponsored symposia are not directly related to agrochemicals, they are applicable to our technical programming. Providing co-sponsorship of a few hundred dollars is a nice gesture to support further building of SETAC/ENVR/AGRO partnerships. MOTION: AGRO will co-sponsor at \$250 each 2 symposia (\$500 total commitment) of SETAC programming hosted by ENVR. AGRO will be collaborative co-sponsors of these 2 sessions on emerging contaminants in water in addition to the 2 ENVR symposia already identified for co-sponsorship. Motion passed by voice vote.

Rice continued: The SETAC chemical interest group b. has a standing agreement with ENVR in which each organization provides a travel stipend to the winner of the student poster competition so that they can attend the meeting of the other organization. To encourage SETAC members toward AGRO, AGRO could give SETAC award winners access to AGRO programming, lunch and learn, etc. AGRO could develop a one-pager on the Division targeted toward SETAC interests, and encourage ideas that suit both organizations for future standing or special co-programming/collaboration. Keith Solomon is the official AGRO-SETAC liaison. Solomon will lead; Rice will assist, and others are welcome to be involved. Because there's no financial request and no commitment from AGRO, Solomon and Rice are empowered to continue exploring and building the relationship with SETAC. Steve Duke noted that the Liaison Committee does not expect to be involved in particular partnerships; this is up to the individual liaisons. Bennett pointed out that this is an excellent opportunity for an IPG, especially with the potential for international outreach and for generating new ACS members. The deadline for IPG proposals is July 1, 2018, for funding in 2019.

ACTION: Steve Duke will help Pam Rice with IPG paperwork with guidance from Rodney Bennett.

7. Strategic Planning Liaison Committee update – Steve Duke

The committee has current/pending relationships with 24 organizations; only a few organizations that have been identified as potential partners have no liaison assigned. The committee has a one-page standard operating procedure for partnership. The SETAC discussion above is a model for other liaisons to develop joint programming where appropriate.

8. New business

John Clark is planning to put together an IPG proposal for a summit at the 2018 meeting. Make sure all reports from previous IPGs are filed so that new proposals can be submitted.

9. Recurring business:

ACTION: Sharon Papiernik developed a monthly list of AGRO activities to guide and inform AGRO leaders; she will send the document to officers for updates, then to the EC and committee chairs.

Councilor Report for the 254th National Meeting & Exposition Washington, DC August 2017

Jeanette M. Van Emon and Rodney Bennett, Councilors

Please contact Jeanette and Rodney if you have a particular concern or would like further information on any of the issues below. They would enjoy hearing from the AGRO membership!

254th ACS National Meeting. The 254th ACS National Meeting held in Washington, DC, August 20-14, 2017, was a success on several levels. The theme of the meeting was *Chemistry's Impact on the Global Economy* which was highlighted in several symposia. The meeting was well attended with:

nu. The meeting	wao won au
Attendees	7,938
Students	2,997
Exhibitors	1,068
Expo only	475
Guest	426
Total	12,904

Updates on specific-AGRO issues.

- We are working on finding answers regarding satellite vendor opportunities for AGRO. This concept was presented to the Meetings & Exposition (M&E) Committee of the Council (Jeanette sits on this committee). The ACS staff has not been able to provide specific details on this and what they consider to be appropriate activities for a satellite location. Perhaps AGRO can be a test case.
- Another issue that directly impacts AGRO is the poor promotion of the Fall ACS meeting as AGRO only programs in the Fall. This was brought up at the M&E Committee and to the Executive Vice-President of ACS Membership. It was acknowledged that ACS is not doing a good promotion job, and it was promised that this would be examined. No word yet though.
- Another important area is the ever-increasing footprint of the national meetings. ACS wants to reduce space allocations and is looking for ways to do so. The Technical Programming sub-committee of M&E is considering how this can be done with minimal impact to all Divisions. One issue being looked at is the parity of posters and oral sessions. If you have any suggestions, please give them to Jeanette and Rod. It has been difficult to get information on this and other issues due to the loss and reorganization of ACS staff. We have our work cut out for us.

Probationary Division of Space Chemistry. One issue generated a lot of discussion was the formation of the Probationary Division of Space Chemistry. The Council defeated a proposal from the Committee on Divisional Activities that it establish a probationary Division of Space Chemistry, effective January 1, 2018. Many divisions said that they already program in this area, and a new division would take away from their programming. It was discussed that divisions should do a better job of highlighting and informing ACS members of the programming areas they encompass. It was also discussed that this information should be readily available to non-ACS members looking for a home to present their research, especially when it may not be obvious to non-members that ACS has such a great breadth of topic areas.

Copyright issues. A presentation was given on an important issue on copyright enforcement effort that ACS is undertaking regarding the commercially-operated network known as ResearchGate. ACS general council (Flint Lewis, Secretary and General Council) has determined that "ResearchGate amasses, modifies and openly distributes millions of copyrighted journal articles without permission or license." It is felt that this "seriously threatens the sustainability of scientific publishing." ACS and other publishers have tried to work with ResearchGate using "an approach that would facilitate the sharing of published articles on its site in ways that respect the publishing agreements between journals and authors," but their attempts have failed. Litigation is being pursued by ACS and Elsevier. Please consult the informational website, www.responsiblesharing.org to learn more. Legal enforcement measures are not directed at researchers but ResearchGate.

Other Council Business. Ballots for the 2017 fall national election were stated to be distributed on September 29, with a voting deadline four weeks later, on October 27. In a change of procedures, all members with an email address on file and eligibility to vote will receive an electronic ballot with the option to request a paper ballot. Those members with no email address on file will be sent a paper ballot with the option to still vote

electronically. The ACS election vendor, Survey & Ballot Systems, will send three email reminders during the voting period to those who have not voted as of the reminder date.

Budget and Finance.

- The Society's 2017 Probable 1 Projection calls for a Net from Operations of \$25.3 million. This is \$2.1 million favorable to the Approved Budget and \$1.6 million higher than 2016. Total revenues are projected to be \$553 million, which is \$2.4 million unfavorable to the budget, but 5% higher than the prior year. Total expenses are projected at \$527.6 million, which is \$4.5 million favorable to the budget, and 4.9% higher than 2016.
- The Budget and Finance Committee also considered several program funding requests for 2018, and on its recommendations, the Board subsequently approved funding for the ACS Online Course in Laboratory Safety and the New Faculty Workshop Series for inclusion in the 2018 Proposed Budget and the 2019-2020 Forecast.
- Additional information can be found at www.acs.org. Click 'About ACS,' then 'Financial,' which will lead you to several years of the Society's audited financial statements and IRS 990 filings.

Actions of the Board of Directors. On the recommendation of the Society Committee on Budget and Finance, the Board voted to approve the advance member registration fee for national meetings held in 2018 at \$475, and to authorize two new program funding requests: an ACS Online Course in Laboratory Safety and a New Faculty Workshop Series.

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-atLarge to be filled on the Executive Committee. This Committee shall nominate candidates for each of the following offices to be filled: Councilor, Alternate Councilor, Secretary, and Treasurer. This Committee shall submit a report in writing to the Chair of the Division for preparation of the ballot to be mailed to the membership. Additional nominations may be made in writing by any group of at least five members and presented to the Chair of the Division not less than three months prior to the fall meeting.

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

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

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

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

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

Bylaw IV. Councilors

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

Bylaw V. Committees

Section 1. There shall be a Program Committee, consisting of three or more members, one of whom shall be the Chair-Elect of the Division, who shall serve as Chair of the Committee. A second member of the Committee shall be the Vice-Chair. The Program Committee shall have the entire responsibility for organizing the program of papers for all Division meetings. It shall work cooperatively with other Divisions of the SOCIETY and other bodies in planning joint sessions and symposia of mutual and timely interest. Section 2. There shall be a Membership Committee of three or more members. This Committee shall aggressively promote membership in the Division by members of the SOCIETY.

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

the annual meeting. This Committee shall advise the Executive Committee on financial resources.

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

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

Section 6. There shall be a Communications Committee of at least three members. This Committee shall be responsible for coordination of the communication and publication activities of the Division, (including newsletter, *PICOGRAM*, and other Division publications). **Section 7.** Special committees may be appointed to consider, conduct, and report upon such special matters as may be delegated to them.

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

Bylaw VI. Dues

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

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

Bylaw VII. Subdivisions

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

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

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

Section 4. Funds. The necessary expenses for each Subdivision shall be authorized by the Executive Committee of the Division from Division funds and shall be paid by the Treasurer of the Division upon the usual authentication.

Bylaw VIII. Meetings

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

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

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

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

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

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

Bylaw IX. Papers

Section 1. The Program Committee may approve or reject papers submitted for presentation before any meeting of the Division. Section 2. The rules for papers presented before meetings of the SOCIETY as outlined in the Bylaws and Regulations of the SOCIETY shall govern the Division.Bylaw X. Amendments

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

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

Bylaw XI. Dissolution

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



AGRO DIVISION Chemistry *for and from* Agriculture www.agrodiv.org

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, 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

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

<u>Full page ads</u> 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.

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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

Previous issues may be viewed on the AGRO website.

2017 Awards in Washington DC



ACS International Award for Research in Agrochemicals – Jeffrey Bloomquist Presented by Julie Eble, AGRO Vice-Chair



AGRO Award for Innovation Chemistry of Agrochemicals – Qing X. Li Presented by Julie Eble, AGRO Vice-Chair



JAFC Best Paper Award – Nikola Pavlović (right) and Wan Chan (below) Presented by Thomas Hofmann (left), JAFC Editor

J Agric Food Chem 2016; 64:5928–5934.





USDA-ARS Sterling Hendricks Lectureship Award – John Pickett Presented by Steven Kappes, USDA-ARS, Associate Administrator, National Programs

PICOGRAM V. 93 Call for Papers



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