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Call for Papers for San Francisco, California USA

Spring 2020 AGRO Division Patrons

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JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY

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From the Chair's Desk

Cheryl Cleveland

Greetings. I communicated with so many of you last year as the AGRO 2019 Program Chair, and now as I rotate to this year's Division chair, it continues to be my honor to serve as one of your officers. As your Division Chair, I invite you to contact me directly with your ideas, concerns, and input. Please note the AGRO updated website now has contact pages for most individuals serving the Division this year (https://www.agrodiv.org/contact-us/).

Recap of San Diego. For those of you that missed the 258th National ACS Meeting in San Diego, it was a week of beautiful weather, engaging speakers, scientific exchange, and continued progress for the AGRO Division. Talks were held in theatre style in the Convention Center in 5 dedicated bays for AGRO; a synchronized break schedule for symposia and dedicated ACS staff support contributed to a successful conduct of technical sessions. Programming included 5 full tracks from Sunday through Thursday, 54 sessions plus 4 separate award symposia. For those early in their careers, there were student travel awards, three new investigator finalists, two early career symposia, and a graduate student / post-doc luncheon. Engagement during our centrally located poster session was excellent. A second annual successful VIP (Vendor Interface Program) event and the time-honored traditions of the Blues and Brews ideation and the AGRO Social rounded out the week.

AGRO Website. Have you seen our newly updated website agrodiv.org? Much work has gone into making the redesign stylish and more functional as well. Kudos to Laura McConnell and Cathleen Hapeman for their vision and energy to spearhead the revision to one of our division's key assets. Changes include an improved ability for the AGRO Communication Team to update information directly. The ability to customize and host new forms for collecting information from members has already proved useful. Future capabilities to post videos from AGRO members may also be implemented. Finally and importantly, the website is a key vehicle for communication regarding abstract submissions for the 2020 meeting and future activities.

AGRO Division Turns 50! The AGRO Division will celebrate its 50th anniversary at the fall ACS meeting in 2020. I am so grateful that this year we have Leah Riter, leah.riter@bayer.com, serving as the 2020 Program Chair for the upcoming 260th ACS National Meeting in San Francisco. Check out the symposia and Leah's message (p. 16). Plan to attend and participate.

But this meeting will be more than our typical symposia. Ken Racke and Jeanette Van Emon are leading the way for the upcoming 50th Anniversary events (see p. 5). A full day symposium, entitled *Chemistry for Sustainable Agriculture and Public Health: AGRO Evolution and Future Opportunities*, will be held on Wednesday, August 19, followed by a Gala Reception. If you are interested in volunteering, we are looking for additional help with the 50th celebration events including the special agricultural field tour, led by Heidi Irrig, heidi.irrig@syngenta.com. Volunteers for special tasks are welcome to contact Ken, ken.racke@corteva.com, or Jeanette, jmvanemon@gmail.com.

Contribute to our 50th Anniversary Gala. All AGRO members are also encouraged to contribute to the 50th Anniversary Gala via planned entries on the website. We are planning a timeline of historical facts as well as a photo collection for a slide show. And of course, we are looking for special financial sponsors. Please contact the AGRO Development Committee for additional information concerning the special sponsorships available:

Carmen Tiu, carmen.tiu@corteva.com
James Foster james.foster@eurofinsus.com
Ralph Warren, ralph.warren@basf.com

Also see the website. https://www.agrodiv.org/wp-content/uploads/2019/10/AGRO-Sponsor-Flyer_Draft_5.pdf

A Pause for VIP. The AGRO Vendor Interface Program (VIP) which has been held just prior to AGRO Blues and Brews in the last two years will be suspended for the 2020 ACS National Meeting in San Francisco. The pause is to accommodate special, one-time 50th Gala events. The VIP event will be reconsidered for the 2021 Atlanta meeting, so stay tuned.

Lunch and Learn. Eurofins sponsors these selective and informative talks for the AGRO membership. We are mid-season now, and thanks to Laura McConnell for supporting this year's selection of programming to date and to Prasesh Sharma for his recent new support. Check out the webinar links (https://www.agrodiv.org/webinars/) and sign up to participate in upcoming webinars. You can also review several previous webinars which are now posted via the AGRO YouTube account.

Award Nominations. Several Awards are currently open for nominations from AGRO members with deadlines in mid-March to beginning of April (https://www.agrodiv.org/awards/). Of note, ***AGRO Fellow*** nominations can be submitted to the Awards Committee Chair, Jim Seiber, or 2020 assistant chairs Qing Li and Jeanette Van Emon. AGRO fellow criteria include: Continued and substantial contributions of time, talents, and service to the AGRO Division of ACS and to the 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 Early Career Scientist Committee is accepting nominations until March 30, 2020. for the ***AGRO New Investigator Award*** which recognizes recent doctorates in last the five years who have produced significant accomplishments conducting research, consulting, or performing regulatory studies (p. 14). Finally, student applications for ***AGRO Education Travel Awards*** are also open (p. 15).

Volunteers. Throughout 2019, the Executive Committee asked for and received several new volunteers for both our standing AGRO committees and some special one-time events. The AGRO Division runs on volunteers, so thank you for the good membership response. During and just after the San Diego meeting, Julie Eble

and I worked on a repopulation plan of several leadership and committee positions. Please check out the AGRO Division Committee (p. 75) for new Chairs and membership changes in several committees.

Several key changes of note are: the Executive Committee has approved Brittany Rauzan as an alternate AGRO Councilor; Chris Bianca now leads the Membership Committee; Aaron Gross agreed to step on as a co-chair for the Early Career Scientist Committee; Kalumbu Malekani and Sasha Kweskin agreed to co-lead the Liaison Committee; and Prasesh Sharma has signed on for Lunch and Learn Webinars. If you are interested in general volunteering, please contact Cheryl Cleveland, cheryl.cleveland@basf.com, or Leah Riter, leah.riter@bayer.com, or check out the volunteer sign up link at https://www.agrodiv.org/get-involved/.

Elections and Participation in AGRO Governance. Each year AGRO votes in new members to the Executive Committee for a three-year term. Congratulations to James Foster, Kalumbu Malek, Mingming Ma, Pat Havens, and Ralph Warren for joining to serve for the 2020 – 2022 term. This spring, Julie Eble, julie.eble@agrodiv.org, will lead the Nominating and Election Committee for 2020 and will take nominations for our annual elections – the positions in the Executive Committee, Officers, and Councilors are always in need of good candidates.

AGRO Booth. Andy Newcombe has stepped up to run an AGRO Division booth at the upcoming National Alliance of Independent Crop Consultants (NAICC) event in San Antonio, Texas, in January 2020. He used our updated booth materials from the 2019 IUPAC meeting and San Diego meeting. Other AGRO Division members in attendance helped person the booth and promoted our AGRO 50th Anniversary Gala, 2020 programing, and the general advantages of AGRO Division membership. ***If you are interested in representing the AGRO Division at an upcoming regional ACS meeting or other conference***, similar materials can be made available; please contact Cheryl Cleveland, cheryl.cleveland@basf.com, or Cathleen Hapeman, cathleen.hapeman@usda.gov.

Division Membership. Signups at the AGRO table during the San Diego meeting added several new division members to our ranks, and we always welcome more. Do you know colleagues that would benefit from AGRO membership? Could your employer explore an AGRO membership campaign? One does not need to be an ACS member to be an AGRO Division member, and the price is $16 or less. ACS has a direct link for online division memberships (https://home.acs.org/forms/s/technical-divisions?). Please contact the Membership Chair Chris Bianca, chris.bianca@jrfamerica.com, with questions or references.

Maintenance of our membership email records can be challenging. Members can help by ensuring their ACS account profiles are up to date. ***If you have had a change in the last year, please contact ACS member services to update emails*** at service@acs.org. By updating the email through member Services, the change of email will be changed as part of the permanent member record.

In Summary. Thank you to all our volunteers and sponsors for their continued commitment to the AGRO Division. Your support of AGRO, your time, and your energy makes our division special. I am so honored to serve as your AGRO Division Chair this year.

Kalumbu Malekani, aka Malek, with Andy Newcombe, Rob Bennett, and Doug Anspaugh at the National Alliance of Independent Crop Consultants (NAICC) Annual Meeting in San Antonio.

Thank you, Gentlemen and others for representing AGRO!

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  - Fertilizers / Biostimulants
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  - REACH / Chemical Safety Assessments and
  - Reports (CSA/CSR)
  - EU Cosmetic Products Regulation (CPR)
  - EU Biocidal Products Regulation (BPR)
- Data Compensation

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- Agricultural and Food Policy Economic Impact Analysis

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AGRO 50th Anniversary

Come Join the Celebration!

260th ACS National Meeting in San Francisco

August 16 – 20, 2020

By now, you have noticed our new AGRO 50th Anniversary logo and updated website, both of which have been prepared to help recognize this important milestone for our Division. We invite you to come celebrate the 50th AGRO anniversary with members, retirees, and friends of the Division during the San Francisco ACS meeting.

By highlighting the rich history, accomplishments, and contributors of 50 years of AGRO success, we hope to educate and to inspire the next generation of our Divisional activities. To participate, please see below for 5 specific ways you can contribute to and be part of our anniversary events.

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1. AGRO HISTORICAL TIMELINE
Contribute a key milestone

- Amazing things have happened in the life of our Division, its programs, and its members, and the purpose of this effort is to capture and recognize these noteworthy events.
- To contribute a Divisional (personal or organizational) milestone, visit the AGRO website www.agrodiv.org/agro-50th-anniversary-celebration/ or contact Cheryl Cleveland, cheryl.cleveland@basf.com

2. AGRO SLIDE SHOW
Share a photo

- We would like to document the historical events and the people of our Division in pictures for sharing at the San Francisco meeting and for posting to the AGRO website.
- To contribute a photo or image, visit the AGRO website www.agrodiv.org/agro-50th-anniversary-celebration/ or contact Caitlin Rering, crering@agrodiv.org

3. 50th ANNIVERSARY SPONSORSHIP
Inspire your organization to support our celebration

- We are soliciting a limited number of sponsorships to help fund the 50th Anniversary.
- Corporate sponsorship of a Gala Table will be $800 to $1000.
- To explore sponsorship benefits, visit the sponsors page of the AGRO website www.agrodiv.org/sponsorship/ or contact Laura McConnell, laura.mcconnell@bayer.com

4. ANNIVERSARY SYMPOSIUM AND GALA RECEPTION
Plan to attend on Wednesday, August 19, 2020

- A full day symposium entitled *Chemistry for Sustainable Agriculture and Public Health: AGRO Evolution and Future Opportunities* will be held on Wednesday, August 19.
- Come hear noteworthy speakers and panelists review historic contributions of AGRO and provide future perspectives on all topics of interest to AGRO.
- The symposium will be immediately followed by our Gala Reception of food and drink to include AGRO partners, friends, and retirees.
- Watch for program information via the ACS or AGRO websites and AGRO email during late spring and summer.
- For details, contact: Jeanette Van Emon, jmvanemon@gmail.com Ken Racke, ken.racke@corteva.com

5. AGRICULTURAL FIELD TOUR
Join the adventure of exciting post-conference tour

- A full-day tour of important agricultural sites in California will be organized on Friday, August 21.
- The trip will be both scenic and educational and include short presentations at farms sites. Stops will include tomato harvesting, apple packing, and walnut processing, federal and state research plots, and UC Davis. Lunch will be at the historic Ryde Hotel in Sacramento.
- Advance tickets for preferred purchase by AGRO members, teachers, students, USDA, IR-4, and EPA will be available via the AGRO website.
- For details, contact Heidi Irrig, heidi.irrig@syngenta.com

AGRO 50th Anniversary

Celebrate our Past, Honor the Present, and Look to the Future!

ACS Fellow Awards

For outstanding achievements in and contributions to science, the profession, and the Society

ACS Fellows from the AGRO Division

2009	Glenn Fuller
2010	James N. Seiber
2011	John W. Finley
	N. Bushan Mandava
2012	Jeanette M. Van Emon
2014	Kevin Hicks
	Laura L. McConnell
	Kenneth D. Racke
2015	Rodney Bennett
	John J. Johnston
2016	Aldos C. Barefoot
2017	Stephen O. Duke
2018	Cathleen J. Hapeman
2019	Joel R. Coats
	Steven J. Lehotay
	Beth A. Lorsbach

AGRO Division Fellows

For 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

1971	Louis Lykken
	Tom H. (Bucky) Harris
	Herman Beckman (Posthumous)
1972	Wendell F. (Bud) Phillips
	Don G. Crosby
	Elvins Y. Spencer
1973	Mr. Roger C. Blinn
	Philip C. Kearney
	Julius J. Menn
1974	Morton Beroza
	James P. Minyard, Jr.
	Joe C. Street
1975	Hank F. Enos
	Maurice B. Green
	Charles H. Van Middelem
1976	Marguerite L. Leng
	Jack R. Plimmer
	Gerald G. Still
1977	Gustave K. (Bob) Kohn
1978	S. Kris Bandal
	Paul Hedin
1979	Rodney D. Moss
1980	G. Wayne Ivie
	John B. Siddall (Posthumous)
1981	Robert M. Hollingworth
	Gino J. Marco
1983	John Harvey, Jr.
1985	Henry Dishburger
	Richard C. Honeycutt
1986	Gunter (Jack) Zweig
1987	Willa Garner
1988	Jan Chambers
	James Seiber
1990	Joseph Fenyes
1991	Nancy N. Ragsdale
1992	Don Baker
	Joel Coats
	Guy Paulson
1993	Larry Ballantine
1994	James Heitz
	Ralph Mumma
	Willis Wheeler
1996	John Bourke
1998	Hank Cutler
	Paul Giesler
2000	Barry Cross
2001	Robert Hoagland
2003	Judd O. Nelson
2005	Rodney Bennett
2006	Terry D. Spittler
2007	John M. Clark
	Ann T. Lemley
	R. Donald Wauchope
2008	Allan S. Felsot
2011	Laura L. McConnell
2012	Jeffrey J. Jenkins
	John J. Johnston
2013	Stephen S. Duke
	Cathleen J. Hapeman
	Kenneth D. Racke
	Teresa A. Wehner
2014	Aldos C. Barefoot
	Jeanette M. Van Emon
2016	Kevin J. Armbrust
	Del A. Koch
	Sharon K. Papiernik
	Pamela J. Rice
2017	Diana Aga
	Jay Gan
	Marja Koivunen
	Steven J. Lehotay
	Thomas M. Stevenson
2018	John J. Beck
	Julie E. Eble
2019	Leah S. Riter

AGRO Awards Committee Report

Jim Seiber, Chair

The recipient of the 2020 ACS International Award for Research in Agrochemicals, which is sponsored by Corteva Agriscience, is. **Qing X. Li,** Professor, Department of Molecular Biosciences and Bioengineering, College of Tropical Agriculture and Human Resources, University of Hawai'i at Mānoa. He will receive this award for his research in proteomics, environmental chemistry, and biotechnology. The award will be presented at a symposium organized by Sharon Papiernik at the 260th National ACS Meeting in San Francisco. The winner of the 2020 AGRO Award for Innovation in Chemistry of Agriculture will be announced in March.

Nominations for the 2022 International Award for Research in Agrochemicals and the 2021 AGRO Award for Innovation in Chemistry of Agriculture are being sought. The nomination criteria for these awards can be found on pages 9 and 10, respectively.

The winner of USDA-ARS Sterling Hendricks Memorial Lectureship will be announced in March 2020. This year the lectureship will be hosted by AGRO and co-sponsored by AGFD. The 2020 Kenneth A. Spencer Award will be announced in March as well. Nominations for the 2021 awards are now being accepted (pp. 11 – 12).

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 2019 will be announced in early spring, both of whom will present lectures at the ACS National Meeting in San Francisco. The call for nominations of papers published in 2020 will be solicited from AGRO and AGFD members and from the public through the *JAFC* website beginning in late Fall 2020 (p. 13).

The 2019 winner of the AGRO New Investigator Award was **Edmund Norris**, post-doctoral research scientist with Jeffrey Bloomquist at University of Florida. He is interested in the development of novel repellents and insecticidal formulations that may circumvent insecticide resistance, while primarily focusing on natural products as his inspiration. This award, which is sponsored by Valent, 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 2020 New Investigator Award are currently being accepted (p. 14).

AGRO has also established an endowment fund in collaboration with Bayer US LLC, Crop Science Division to promote an understanding of the role of chemistry in agriculture for students. The 2019 1st, 2nd, and 3rd place winners were **Christopher Fellows** (Louisiana State University, Daniel Swale), **Shiyao Jiang** (University of Florida; Gainesville, Jeffrey Bloomquist), and **Rui Chen** (Louisiana State University, Daniel Swale), respectively. Applications for the Student Travel Awards are now being accepted (p. 15).

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

Call for Nominations
AGRO Division Fellow Award

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

Criteria shall be –

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

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

Submit nominations electronically to:

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

Past Awardees of the 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, Champaign-Urbana
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 M. 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
2019 Vincent L. Salgado, BASF, Research Triangle Park, North Carolina
2020 Qing X. Li, University of Hawai'i, Mānoa, Hawai'i

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CALL FOR NOMINATIONS
ACS INTERNATIONAL AWARD FOR RESEARCH IN AGROCHEMICALS
SPONSORED BY CORTEVA AGRISCIENCE

2022 Fall ACS National Meeting in Chicago, Illinois USA

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 2022 Fall National ACS Meeting in honor of the awardee.

Special thanks to our sponsor for their generous contribution!

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Agriculture Division of DowDuPont

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

2021 Fall ACS National Meeting in Atlanta, Georgia

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 262nd National ACS Meeting in August 2021 in Atlanta, Georgia.

SPECIAL THANKS TO OUR SPONSOR FOR THEIR GENEROUS CONTRIBUTION!

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PAST AWARDEES OF THE AGRO 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, University of Hawai'i, Mānoa, Hawai'i
2018 Vincent L. Salgado, BASF, Research Triangle Park, North Carolina
2019 Pamela G. Marrone, Marrone Bio Innovations, Davis, California

CALL FOR NOMINATIONS
2021 STERLING B. HENDRICKS MEMORIAL LECTURESHIP
Sponsored by USDA-Agricultural Research Service
Co-Sponsored by AGFD & AGRO Divisions

The Agricultural Research Service (ARS), USDA's principal in-house scientific agency, is seeking nominations for the 2021 Sterling B. Hendricks Memorial Lectureship Award. This award is also co-sponsored by the American Chemical Society (ACS).

Established in 1981, the Hendricks Memorial Lectureship honors the memory of Sterling B. Hendricks (1902-1981) by recognizing 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 lecture is a forum for a presentation on a scientific topic, trend, or policy issue related to the chemical science of agriculture. Presenting the lecture is a requirement of the honor. The award includes an honorarium of $2,000, a bronze medallion, and expenses to present the lecture.

The 2021 Award will be presented on August 25, 2021 at the ACS National Meeting in Atlanta, Georgia, prior to the lecture. The Divisions of Agrochemicals (AGRO) and Agricultural and Food Chemistry (AGFD) co-sponsor the lecture, and in 2021, AGFD will host the lecture.

Nominees may be outstanding senior scientists in industry, university, consulting, or government positions. *Current ARS employees are not eligible.* 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*

Please send the completed package in pdf format to HendricksLecture@usda.gov

The deadline for nominations is **January 15, 2021**.

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
1990 Roy L. Whistle, Purdue University, West Lafayette, Indiana
1991 Peter S. Eagleson, Massachusetts Institute of Technology, Cambridge, Massachusetts
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
2019 John W. Finley, Louisiana State University, Baton Rouge

Call for Nominations
2020 Kenneth A. Spencer Award
Sponsored by ACS Kansas City Section

The Kansas City Section of the American Chemical Society is soliciting nominations for the 2020 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://kcacs.sites.acs.org/spencerawardapplication.htm

Submit nominations to Jon Tally
via email or request for a Dropbox, jonftally@gmail.com

Or via USPS to:
Jon Tally
808 SW Lake Pines Drive
Lee's Summit, MO 64082

Past Kenneth A. Spencer Award Winners

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, Gainesville
1981	John Speziale, Monsanto Agricultural Products Co.
1982	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. Bremner, Iowa State University
1987	Hector F. DeLuca, University of Wisconsin, Madison
1988	Boyd L. O'Dell, University of Missouri, Columbia
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
1993	Bruce 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
2018	Thomas M. Stevenson, FMC, Wilmington, Delaware
2019	Thomas Sparks, Corteva (ret.), Indianapolis, Indiana

JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY

CALL FOR NOMINATIONS

2021 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 2020 (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 2021 ACS National Meeting in Atlanta, Georgia

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 (less than 500 words)
- Suggestion of a category AGFD or AGRO
- The words "*JAFC* nomination" in the subject 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 2021, and the award will be presented at the Fall 2021 ACS National Meeting held in August in Atlanta, Georgia.

Send your nominations to
jafcaward@acs.org

Deadline for nominations
January 15, 2021

CALL FOR APPLICANTS
2020 AGRO DIVISION
NEW INVESTIGATOR AWARD
Sponsored by Valent

2020 Fall ACS National Meeting in San Francisco, California

The AGRO Division seeks nominations for the New Investigator Award (NIA) to be awarded at the ACS meeting in San Francisco, California, in August 2020. The purpose of the New Investigator Award is to recognize scientists who have obtained a doctoral degree and are actively conducting academic, industrial, consulting, or regulatory studies.

The Division is interested in work on all aspects of agrochemicals which are broadly defined to mean pesticides of all kinds (*e.g.*, chemical pesticides, biopesticides, pheromones, chemical attractants, fumigants, plant incorporated protectants, and disinfectants) as well as biotechnology-derived crops (*e.g.*, Bt crops, Roundup Ready crops, etc.). The categorical areas of study related to agrochemicals are very broad and encompass environmental chemistry, toxicology, exposure assessment, risk characterization, risk management, and science policy. Studies of veterinary pharmaceuticals and antibiotics are included in the Division's mission. The Division encourages submissions related to public health protection as well as crop, livestock, aquaculture, and wildlife protection.

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

The Process:

- To be eligible for the award, the scientist must have obtained his or her doctorate no more than five years before the time of the Fall ACS National Meeting. Thus, for 2020, applications will be considered from ***scientists who have obtained their doctorates no earlier than the year 2015.***
- A panel consisting of at least three AGRO members will chose up to three finalists based on their extended abstracts, 1-page *curricula vitae,* and letter(s) of recommendation.
- ***Each finalist will receive up to $1275 for travel and meeting expenses.***
- Each finalist will deliver an oral presentation (which will be judged by the panel) in one of the AGRO Program symposia. The winner, who will receive a plaque, will be chosen after all finalists have presented their papers.

To Apply for the New Investigator Award:

1. Submit a **2500-character abstract** to a symposium in the AGRO Division using the ACS Meeting Abstracts Programming System (*http://maps.acs.org/).*
2. Submit an **extended abstract (maximum 2 pages) describing the candidate's research/studies** to the NIA Coordinator. Include the impact (or potential impact) of the results as it pertains to issues of concern to AGRO.
3. Submit a 1-page ***curriculum vitae***.
4. Submit at least **one letter of recommendation** from a current supervisory scientist (*e.g.*, post-doctoral mentor, a business manager, departmental chair).
5. Deliver an oral presentation in an appropriate symposium at the 260th ACS National Meeting in San Francisco, California.

Deadline:
The extended abstract, *curriculum vitae*, and letter(s) must be received by the New Investigator Award (NIA) Coordinator no later than **March 30, 2020**.

For more information, please contact:
Sasha Kweskin, NIA Coordinator
Bayer US LLC, Crop Science Division
sasha.kweskin@bayer.com

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

CALL FOR APPLICANTS
2020 AGRO DIVISION EDUCATION TRAVEL AWARDS
Sponsored by Bayer US LLC, Crop Science Division

UNDERGRADUATE & GRADUATE STUDENT RESEARCH

Travel Support for Student Posters and Senior Grad Student Oral Presentations

2020 Fall ACS National Meeting in San Francisco, California

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 2020 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 260th ACS Fall National Meeting, which will be held in August 2020 in San Francisco, California. 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.

Oral Presentations: 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.

To apply, students should submit the following no later than March 30, 2020:

1. A **2500-character abstract** formatted according to the directions given at the ACS Meeting Abstracts Programming System (*http://maps.acs.org/*). Be sure to include name of the applicant, applicant's address, and applicant's e-mail address.

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

   posters@agrodiv.org

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

2. A two-page extended abstract giving more detail of the research/presentation. For a sample extended abstract, visit *http://www.agrodiv.org/graduate-students/.*

3. A short letter of nomination from the faculty advisor that verifies current enrollment of the student.

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

   posters@agrodiv.org

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

For more information, please contact the co-organizers:

Marja Koivunen
AMVAC Chemical Corporation
Davis, California
tel: 530-574-1837
email: mekoivunen@gmail.com

Aaron Gross
Virginia Polytechnic Institute and State University
Department of Entomology
Blacksburg, Virginia
tel: 540-232-8448
email: adgross@vt.edu

Abstracts will be reviewed by the Education Committee.
Applicants will be notified of their selection status in May 2020.

Special thanks to our sponsor for their generous contribution!

Notes from the Program Chair

Leah Riter
leah.riter@bayer.com

The AGRO program at the 260th National ACS Meeting and Exposition in San Francisco, California, will be held August 16 – 20, 2020. The theme for this meeting is *Moving Chemistry from Bench to Market*. Two of the sub-topics, sustainability and green chemistry, align particularly well with the mission of the AGRO Division.

We are set for an exciting program this year. We have over 45 proposed symposia organized by about 120 scientists representing academia, government, and private sectors. I thank all our dedicated and enthusiastic symposia organizers for their expertise, time, and effort in leading this delightful scientific exchange.

The **50th Anniversary of the AGRO Division** will be celebrated at the San Francisco meeting. There will be several technical and social events at the conference that will highlight the past five decades and the future of agricultural innovations. Below are two events that you may want to incorporate into your ACS conference calendar.

50th Anniversary Symposium and Gala, Wednesday, August 19. A full-day symposium is being organized by Jeanette Van Emon, Rodney Bennett, Ken Racke, and Jim Seiber to celebrate the 50th anniversary of the AGRO Division. Speakers will include noteworthy leaders and AGRO alumni from industry, academia, and government agencies. A gala reception will immediately follow this symposium (p. 5).

Agricultural Field Tour, Friday, August 21. We will tour the diverse agricultural landscapes of northern California as part of AGRO's 50th anniversary celebration. University of California professors will give an overview of modern agricultural practices and the advancements made over the past 50 years. In addition, this tour will provide an opportunity to interact with growers, extension agents, and scientists in a variety of agricultural settings. There will be limited spots available on this tour, so make sure to sign up early. Contact Heidi Irrig, heidi.irrig@syngenta.com, for more information.

Awards. While in San Francisco, we will recognize the significant achievements of our colleagues in agrochemical research. **Qing X. Li** will be awarded the ACS International Award for Research in Agrochemicals in a symposium organized by Sharon Papiernik, Michael David, and Ji Li. The USDA-ARS Sterling Hendricks Memorial Lectureship will be hosted by AGRO Division on Tuesday, August 18, and will be co-sponsored by AGFD. The speaker will be announced in March. In addition, the award winners for the 2020 AGRO Innovation Award and the Journal of Agricultural and Food Chemistry Best Paper Award will be embedded in AGRO symposia. The winners will be announced in early spring.

Early Career Opportunities.
AGRO Education Awards for Student Travel provides funding for students who present their research at the National ACS meeting. The deadline for applications is March 30, 2020. Thank you to Marja Koivunen and Aaron Gross for co-organizing this award program.

AGRO New Investigator Award (NIA) recognizes scientists who have obtained a doctoral degree in the last five years and have produced significant accomplishments conducting research, consulting, or contributing to regulatory efforts. Full application packages are due by March 30, 2020. Thank you to Sasha Kweskin for organizing this award program.

Early Career Symposia Series provides funds for symposia within the AGRO program that are organized by and feature speakers who have attained their highest degree earned within the last 10 years. We are delighted to welcome three Early Career Symposia to our Fall 2020 Program: *Semiochemical Communications in Agricultural Ecology* organized by Nurhayat Tabanca and Yunfan Zou, *Statistical Modelling and Analysis for Agrochemical Research Data* organized by Huizhe Jin and Zijiang Yang, and *Vector Control Technologies Now and Into the Future* organized by Edmund Norris, Aaron Gross, and Daniel Swale.

AGRO Programming Support. Finally, we continue to rely on the expertise of Peney Patton (ppatton@agrodiv.org), Program Secretariat for AGRO and ENVR. Thank you, Peney, for all your help during this 2019 – 2020 planning cycle!

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

All abstracts must be 2500 characters or less
and must be submitted on-line

http://maps.acs.org

DEADLINE: March 30, 2020
THERE WILL BE NO EXTENSIONS

List of AGRO Symposia by Topic Area
260th ACS National Meeting and Exposition
August 16 – 20, 2019, San Francisco, California, USA
Moving Chemistry from Bench to Market

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

Advances in Agrochemical Residue, Analytical and Metabolism Chemistry, and Metabolomics
- 2020 ACS International Award for Research in Agrochemicals: From Pest Control to Environmental and Human Health
- Analytical Challenges Facing Developing Cannabis Industries
- Analytical Technologies Supporting Agrochemical R&D
- Impact of Evolving Instrumentation on Agricultural Science Regulation and R&D
- Non-Extractable Residues of Pesticides and Other Chemicals in Soil: Challenges, Strategy, and Regulation
- Residue Analytical Method Development for Global Use: Advances in Robust, Cost Effective, and Innovative Techniques
- Stereoisomers: Regulatory Strategies and Technical Advances
- Technologies and Predictive Tools for Metabolite Generation, Identification, and Assessment

Agricultural Biotechnology
- Everything You Ever Wanted to Know about Glyphosate: A Transparent Look at the Science
- Gene Editing in Agriculture – Leveraging new breeding tools to improve crops and their production

Agrochemical Toxicology and Mode of Action
- INSecticides and TARgets (INSTAR) Summit
- Strategies for Insecticide Mode of Action Discovery

Air Quality and Agriculture
- Contemporary Use of Fumigants

Biorationale Pesticides, Natural Products, Pheromones, and Chemical Signaling in Agriculture
- Biostimulants in Agriculture: Chemistry and Regulatory Aspects
- Natural Products as Agrochemicals
- Semiochemical Communications in Agricultural Ecology: ***Early Career Scientist Symposium***

Communication
- Communicating Science to the General Public – How to Effectively Engage

Discovery and Synthesis of Bioactive Compounds
- Computational Strategies in Modern Agrochemical Discovery and De-risking
- Synthesis and Chemistry of Agrochemicals

Ecosystem Exposure and Ecological Risk Assessment
- Evaluation of Mixtures Through the Lens of Risk Assessment
- Exposure and Effects of Chemicals and their Degradation Products in Agroecosystems
- Let's Make it Work: Balancing Both Crop and Species Protection
- Off-target Transport of Field Applied Agricultural Chemicals
- Pesticides from Bench to Market: Safeguarding Sensitive Species
- Task Force Data Generation for Risk Assessment
- Three M's of Pesticides in Surface Water: Monitoring, Modeling, and Mitigation

Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Environmental Fate, Transport, and Modeling of Agriculturally-related Chemicals
- Higher Tier Environmental Fate Studies and Modeling for Regulatory Submissions
- Statistical Modeling and Analysis for Agrochemical Research Data: ***Early Career Scientist Symposium***

Formulations, Process Chemistry, and Application Technology
- Formulation Science an Area for Practical Surfactant and Colloid Applications
- Process Research and Development in Crop Protection

Human and Animal Health Protection: Vector Control, Veterinary Pharmaceutical, Antimicrobial, and Worker Protection Products
- Vector Control Technologies Now and into the Future: ***Early Career Scientist Symposium***

Human Exposure, Health, and Risk Management

Non-Food/Feed Production and Uses of Ag Commodities and Byproducts
- Addressing U.S. Growers' Drive for Hemp Agricultural Chemicals
- Challenges and Opportunities for Insecticide Development in the Cannabis and Hemp Industry
- Modernization of Inhalation Assessments

Pesticides, Pollinators, and Non-target Arthropods
- Extending the Boundaries of Pollinator Research and Risk Assessment Methodologies for Pesticides

Regulations, Harmonization, and MRLs
- Developments in Regulatory Science – It's Testing, and It's Research
- From Cellar to Market: The Impact of Losing MRLs on Long-term Stored Food Products
- Physical Chemistry Testing Guidelines: Complex Challenges During Simple Tests

Technological Advances and Applications in Ag Science
- Drones and Disruptive Application Technologies

Special Topics and General Symposium
- Challenges of Agriculture in Developing Countries
- Chemistry for Sustainable Agriculture and Public Health: AGRO Evolution and Future Opportunities
- Effects of Climate Change on Agriculture, Species, and Agrochemical Efficacy
- Microplastics: Environmental Fate, Potential Effects, and Stewardship
- Sustainability in Agriculture: Understanding the Environmental Footprint of Developing Crop Protection Products
- Protection of Agricultural Productivity, Public Health, and the Environment (General Session)

Awards Co-sponsored with AGFD and Others
- USDA-ARS Sterling B. Hendricks Memorial Lectureship Award
- ACS Kansas City Division Kenneth A. Spencer Award
- Journal of Agriculture and Food Chemistry Article Awards

Call for Papers

260th ACS National Meeting & Exposition

August 16 – 20, 2020

San Francisco, California USA

2020 ACS International Award for Research in Agrochemicals: From Pest Control to Environmental and Human Health

Purpose of Symposium

This symposium is in honor of Dr. Qing X. Li, recipient of the 2020 ACS International Award for Research in Agrochemicals.

Modern agrochemicals are designed to be beneficial to agricultural production and protective of human and environmental health. This symposium will address worldwide research advances in agrochemicals from their discovery to their dissipation and remediation. The symposium will provide a platform to review and discuss the advantages and applications of techniques including immunochemistry, analytical chemistry, and proteomics to evaluate pesticidal activity as well as potential human and environmental health concerns. It will serve as an international network hub for colleagues working in pesticide discovery, action target identification, residue analysis, food safety, microbial transformation of pollutants, and remediation technologies. Besides AGRO, this symposium will be of interest to the ANYL, TOXI, and ENVR divisions.

Suggested Topics

- Analytical chemistry and immunoassay techniques, and their application to agrochemicals
- Pesticide residues and other potential toxins in food
- Microbial transformations of agrochemicals, including remediation technologies
- Environmental fate of agrochemicals and their transformation products
- Pesticide molecular targets of action
- Chemical proteomics in agrochemical research

For further information, contact the organizers

Sharon Papiernik, USDA-ARS, 605-693-5201, sharon.papiernik@usda.gov
Michael David, BASF, 919-547-2014, michael.david@basf.com
Ji Li, China Agricultural University, +86-10-6273-2017, liji@cau.edu.cn
Jeong-Han Kim, Seoul National University, +82-2-880-4644, kjh2404@snu.ac.kr

Submit abstracts of 2500 characters or less to

http://maps.acs.org

January 6 – March 30, 2020

Call for Papers

260th ACS National Meeting & Exposition

August 16 – 20, 2020

San Francisco, California USA

Addressing U.S. Growers' Drive for Hemp Agricultural Chemicals

Purpose of Symposium

The unprecedented explosion of the hemp industry has started a conversation between registrants, Federal & State regulators, and growers on how crop protection tools can aid in the efficient production of this crop to meet consumer demands. The classification of the many products derived from the hemp plant is a new challenge for regulators to consider. Registrants are reticent to engage in the expansion of crop protection products on this new crop without clearly defined regulations and guidance to ensure they are compliant with all State and Federal laws.

This symposium will be an opportunity for hemp producers/ processors, pesticide registrants, chemists, and other scientists to get the latest information on the current regulatory status of hemp products, registrations, tolerances, and classification by Federal and State authorities.

Suggested Topics

- Past, present, and future pesticide regulatory schemes with hemp
- Hemp and the 2018 Farm Bill
- Legality: Is it legal or not? Which portion of the crop is legal?
- Crop protection products available for use on hemp at the State versus Federal level
- Regulatory clarity on hemp and crop protection chemicals
- International experiences regulating pesticides on hemp
- Minor use experiences with similar situation
- Meeting international standards and regulations

For further information, contact the organizers

Heidi Irrig, Syngenta, 336-632-7243, heidi.irrig@syngenta.com
Jerry Baron, The IR-4 Project, 732-932-9575 ext. 4605, jbaron@njaes.rutgers.edu

Submit abstracts of 2500 characters or less to

http://maps.acs.org

January 6 – March 30, 2020

Call for Papers

260th ACS National Meeting & Exposition

August 16 – 20, 2020

San Francisco, California USA

Analytical Challenges Facing Developing *Cannabis* Industries

Purpose of Symposium

Cannabis is an extremely difficult analytical matrix. The rapid growth of the hemp and legal marijuana industries is necessitating developing robust and reliable analytical methodologies for a variety of components. Analysis of cannabinoids such as THC and CBD are needed to develop and establish proper dosing levels for medical uses. The legalization of hemp has opened the doors for the labelling and use of a wide variety of traditional agrochemicals. What safety testing is needed? What analytical methodologies are needed to support new pesticide registrations?

Analytical methodologies are needed for exogenous substances such as pesticides and growth regulators. Other contaminant testing for metals, fungal toxins, and bacteria are required at the State level and need analytical methodologies.

The many products derived from the hemp plant are a new challenge for analytical chemists to consider. Registrants are reticent to engage in the expansion of crop protection products on this new crop without clearly defined regulations and guidance to ensure they are compliant with all State and Federal laws. Acceptable methodologies are needed. In addition to AGRO, this symposium would be of interest to MEDI and AGFD.

Suggested Topics

- Past, present, and future pesticide analytical methodologies for hemp and marijuana
- Analysis of cannabinoids for medical uses
- Legal implications of cannabinoid results
- Crop protection product registration available for use on hemp at the State versus Federal level
- International experiences regulating pesticides on hemp
- Other contaminants such as metals, fungi, fungal toxins, and bacteria
- Impact of increased pyrethroid use on inhalation/oral exposures
- THC/CBD oil impact (other cannabinoids, terpenes, etc.)
- Pesticide risk assessments for cannabis consumption
- Methods for edibles and vaping

For further information, contact the organizers

Paul Reibach, PHRFECT Consult, 508-317-0108, phrfect@aol.com
Matt Hengel, The IR-4 Project, 530-867-2402, mjhengel@ucdavis.edu

Submit abstracts of 2500 characters or less to

http://maps.acs.org

January 6 – March 30, 2020

Call for Papers

260th ACS National Meeting & Exposition

August 16 – 20, 2020

San Francisco, California USA

Analytical Technologies Supporting Agrochemical R&D

Purpose of Symposium

Characterizing residue concentrations of a crop protection molecule and its metabolites in different environmental, crop, and animal matrices is essential and required during the registration process. Some newer crop protection actives are large and contain multiple functional groups and rings, while a fair number of these actives contain one or more chiral centers, which lead to increased complexity of the metabolites produced. Therefore, the qualitative and quantitative analysis of these crop protection molecules and their metabolites from various matrices becomes even more challenging. Hence, innovations in analytical tools and technologies are essential to enable researchers to accomplish these tasks efficiently.

This symposium will provide a platform to communicate and discuss cutting edge analytical technologies to enable higher throughput, more sensitive, and highly specific sample analysis from challenging matrices in E-fate, metabolism, and residue studies and early phase discovery studies. Other ACS divisions that may benefit from this symposium are ANYL, ENVR, and AGFD.

Suggested Topics

- Analysis of samples from challenging matrices, *e.g.,* compost, pollen, nectar, and crop/animal tissues
- Advances in extraction techniques and non-extractable residue (NER) characterization
- Advances in sample preparation, clean-up, concentration and chromatography techniques
- Application of recent advances in mass spectrometry tools for quantitative and qualitative analysis
- Cutting-edge mass spectrometry technologies for targeted and non-targeted metabolite identification
- Tools enabling faster method development
- Application of post-acquisition data mining techniques for metabolite Identification
- Biochemical, especially immunochemical methods for inexpensive screening and on-site analysis
- Advances in metabolomics and applications in agrochemical research

For further information, contact the organizers

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January 6 – March 30, 2020

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260th ACS National Meeting & Exposition

August 16 – 20, 2020

San Francisco, California USA

Assessment of Exposure and Effects of Chemicals and Their Degradation Products in Agroecosystems

Purpose of Symposium

Recent decades have seen increased exposure of chemicals in agricultural environments either intentionally (*e.g.*, control for weeds and pests) or un-intentionally (*e.g.*, from biosolid soil amendments and reuse of treated wastewater for irrigation). As a result, the modern agroecosystem may be exposed to a complex mixture of many chemicals at trace levels including pharmaceuticals, veterinary medicines, personal care products, industrial chemicals, and agrochemicals. Once in the soil, or even during their exposure pathway, these chemicals can be degraded or metabolized into degradants, increasing the complexity of the chemical exposome, and where their bioactivity and potential ecotoxicity remains largely unknown. Recent advances in analytical techniques, including non-targeted and high-resolution mass spectrometry, have helped scientists identify and quantify exposure as well as investigate potential pathways of degradation. These techniques can be combined with traditional and emerging ecotoxicology methods to evaluate the impacts these chemicals may have on soil health, plant productivity, and other potential risks. This symposium seeks to provide a platform for governmental, academic, and industry researchers investigating fate, metabolism, and effects of a wide range of chemicals and their degradants in the agroecosystem.

Suggested Topics

- Use of non-targeted analysis to characterize chemical exposure in agroecosystems
- Identification of chemical metabolites in agroecosystems.
- Ecotoxicity of chemicals and their degradants on non-targeted plant or microbial endpoints
- Impacts on plant-rhizosphere interactions including chemical sensing resulting from contaminant exposure
- Applications of metabolomics, and other “omics” techniques to assess effects of chemicals in agricultural settings
- Chemical uptake, metabolism and translocation in plants
- Impact of soil microbes on chemical transformations

For further information, contact the organizers

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Biostimulants in Agriculture: Chemistry and Regulatory Aspects

Purpose of Symposium

Plant biostimulant products such as seaweed extracts, protein hydrolysates, humic substances, and microbials represent a variety of chemistries due to the different raw material composition. The use of plant biostimulants as part of sustainability and IPM programs has steadily increased during recent years, and as a result of its growing importance in the global agrochemical market, agrochemical companies have begun to invest significantly in this sector. The growing interest has also resulted in several startup companies that are solely focusing on the production and marketing of biostimulants. With continuous growth, the value of the global biostimulant market is estimated to be around $5 billion by 2025.

The aim of this symposium is to provide an update on the biostimulant research and regulatory aspects to the AGRO audience. It will present up-to-date information on the current research on the chemistry, mode of action, and the signaling pathways that lead to improved stress tolerance, nutrient uptake, and crop yield quantity and quality, as well as on the latest developments in the regulatory framework for biostimulants in the U.S. and other geographies. Besides AGRO, this session will be of interest to AGFD, BIOL, and ENVR members of ACS.

Suggested Topics

- Chemistry of plant biostimulants: seaweed, protein hydrolysates, humic substances, microbials, and small molecules
- Analytical methods for biostimulants
- Methods for Biostimulant research in the laboratory, greenhouse, and field
- Modes of action of plant biostimulants
- Plant signaling pathways and physiological processes relevant to biostimulants
- Biostimulants in abiotic stress tolerance
- Biostimulants in improved plant nutrient uptake and use efficiency
- Biostimulants in improved quantity and quality of crop yield
- Regulation of biostimulants in the U.S. and other geographies
- Future of biostimulants

For further information, contact the organizers

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Challenges and Opportunities for Insecticide Development in the Cannabis and Hemp Industry

Purpose of Symposium

With the passage of the 2014 and 2018 Farm Bills, hemp (*Cannabis sativa* L.) is now being grown within the United States over a much broader geographic area and for different uses, which has launched the cannabis and hemp industries into the forefront of the U.S. and global economic market. Within the past 3 years, a large number of arthropod pest species have been documented to feed on hemp in the United States, yet significant knowledge gaps regarding mechanisms to control these pests, insecticide-plant interactions, and plant chemistry has restricted our ability to advance pest management on the crop. This symposium will highlight some of the most prominent research at the intersections of agrochemicals and commercial hemp/cannabis production.

Contributors will discuss various aspects of the cannabis/hemp industry with a specific focus on the current state of the field and direction for future growth of the agrochemical field. The goal of this symposium is to bring together experts to discuss the latest technologies and advancements in the fields of agrochemicals, insect pest complexes, and plant chemistry in cannabis that will provide a platform for knowledge dissemination, bolster collaboration, and develop future research projects.

Suggested Topics

- Synthetic insecticides for pest control
- Biopesticides in hemp production
- Cannabis terpenes and plant chemistry
- Insecticide-plant interactions

For further information, contact the organizers

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Challenges of Agriculture in Developing Countries

Purpose of Symposium

Farming practices, pesticide use, and regulatory requirements for pesticide registration can vary from country to country. This intersection of practices, use, and regulations presents unique challenges in developing countries. Examples of challenges include applying farming technologies to small fields, inability to follow pesticide label due to language barriers, use of counterfeit products, and unclear/inaccessible regulatory requirements. As a result, in many cases, pesticides either are not used appropriately, or important pest control technologies are not available to the farmer.

Environmental scientists, academics, government officials, and regulators with interest in agriculture in developing countries would benefit from learning more from each other about country-specific practices, regulations, as well as challenges and strategies for effective use of pesticides. This symposium is open for collaboration with other divisions such as ENVR and AGFD.

Suggested Topics

- Unique farming practices and pesticide use patterns in developing countries
- What are the datasets, models, and tools available to evaluate cropping and pesticide use patterns?
- Applicability and transferability of studies and risk assessments conducted across developing countries
- Regulatory landscape in developing countries and opportunities to increase transparency
- Pesticide stewardship and agronomic policies in developing countries
- Balancing between economic value and environmental sustainability
- Overcoming language barriers to improve environmental safety of farming
- Different crop diseases or pests in developing countries
- Safety aspects

For further information, contact the organizers

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Chemistry for Sustainable Agriculture and Public Health: AGRO Evolution and Future Opportunities

Purpose of Symposium

This full-day symposium is being organized as part of the celebration of the 50th anniversary of the Agrochemicals Division (AGRO) planned for the San Francisco ACS meeting, and will immediately be followed by a gala reception open to all AGRO members and invited guests.

Since it achieved full ACS Division status in 1970, AGRO has served as the nexus of scientific exchange related to chemistry in the service of sustainable agriculture and public health. Through its technical programs at national meetings, special workshops and symposia, educational initiatives, awards, and publications, AGRO has had major impacts on the development of agriculture in the U.S. and worldwide.

Invited symposium speakers, including noteworthy leaders and AGRO alumni from industry, academia, and government agencies, will review historic developments and contributions as well as provide perspectives on what to expect in the future for all topics of interest to AGRO. By highlighting the rich history, accomplishments, and contributors of 50 years of AGRO success, we hope to both educate and inspire the next generation regarding Divisional activities and participation.

Please plan to come celebrate the 50th AGRO anniversary with members, retirees, and friends of the Division during the San Francisco ACS meeting.

Important note: *Oral presentations for this symposium will be by invitation-only, but we actively invite poster contributions.*

Suggested Topics

- Historic contributions of AGRO to worldwide innovation and sustainable agriculture
- Evolution of agriculture and crop protection in the past 50 years
- The biotech revolution and its impact on agriculture
- The most important challenges and opportunities for AGRO contributions and programs of the future
- Farming and crop protection in the emerging digital age
- Land grant universities and changing models of education
- The role and contribution of USDA and federal research
- Advancements and outlook for regulation of agrochemicals
- Advances in formulation and application technologies
- Agrochemical environmental assessments - from observation to prediction
- Changing consumer expectations for food safety and information
- Public health and urban pest management trends and directions
- Evolution and consolidation of the crop protection and seed industry
- Impacts of legislation and legal actions on agriculture and crop protection

For further information, contact the organizers

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Communicating Science to the General Public: How to Effectively Engage

Purpose of Symposium

To help secure much needed innovation in agriculture, scientists and farmers have new and different responsibilities today. They must be able to recognize how values, perceptions, and human behaviors affect public opinion, and consider effective ways to engage with a diverse audience in this complex environment. Traditional science communication around agriculture is no longer adequate. In this symposium we will hear from experts to discuss this paradigm, we will explore ways to establish trust and greater credibility with consumers and we will look at ways to better utilize novel science communication tools such as social media, videos, and interactive websites.

Scientists from AGRO, AGFD, ENVR, and AACT should consider participation.

Suggested Topics

- Why/Where/How should scientists engage
- Barriers to engaging in communication
- Understanding different communication styles
- Principles that can lead to successful and effective science communicators
- Impact of the global landscape on communication
- Novel science communication tools

For further information, contact the organizers

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Computational Strategies in Modern Agrochemical Discovery and De-risking

Purpose of Symposium

Both today's and tomorrow's agrochemical research efforts will revolve around providing innovative chemical solutions that will sustain global food security without compromising safety. Traditional agrochemical discovery pipelines have shown diminishing returns as pest species continue to evolve resistance to most marketed chemistries. Additionally, increased regulatory policy stringency, in addition to public health initiatives in academia, industry, and government laboratories have made historic discovery platforms data-rich but difficult to navigate. As the tools for laboratory biochemical / cellular / biological interrogation and research evolve, accompanying computational and "digital science" tools must be developed and integrated to enable enhanced extrapolation and insight across platforms. This evolution can enable novel and progressive discovery pipelines from molecular elucidation through product risk assessment and launch.

With a highly competitive agrochemical business landscape, being able to integrate experimental and computational tools for both discovery and de-risking is of utmost importance. The goal of this symposium is to provide a platform for scientists in agrochemical discovery (computational and experimental chemists) as well as de-risking (toxicology, regulatory) to present their latest research results.

In addition to the AGRO community, this symposium would be of interest to the MEDI, COMP, and TOXI divisions of ACS.

Suggested topics include but are not limited to

- Practical approaches to competitive-inspired chemistry: who does it, why do it, and how to do it?
- Novel modalities in modern agrochemistry (*e.g.*, PROTAC, peptidomimetics)
- AI and machine learning in discovery and de-risking
- Modeling meets DNA-Encoded Libraries – Hit verification, modeling, and characterization
- Adaptive intelligent systems for molecular *de novo* design and drug discovery
- Public computational toxicology tools, models, and data resources and dashboards of the present and a glimpse to the future: where to find them and how to use them for discovery and de-risking
- Capturing and mining agrokinetic data for optimizing bioavailability and ADME in multiple targets (*e.g.*, weed, insect, and disease control)
- Pesticide resistance: impacts on discovery/de-risking and developing solutions with resistance breaking potential
- Toward pesticide-wide metabolomics: Identifying key metabolic pathways and predicting metabolic degradation products for pesticide targets
- Experimental counter-screens and computational de-risking strategies for humans, off-targets, and/or beneficial species (*e.g.*, bees, ladybugs)

For further information, contact the organizers

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August 16 – 20, 2020

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Contemporary Use of Fumigants

Purpose of Symposium

Fumigants are useful chemicals for pest control in soil and in harvested foods. A leading fumigant, methyl bromide, is being phased out under international regulation of the Montreal Protocol due to stratospheric ozone depletion potential. A search is on for alternative fumigants that are effective, and which are safe for applicators, workers, and by-standers.

This symposium addresses contemporary research issues surrounding the use of fumigants across the globe, but particularly in California, where environmental and agricultural perspectives converge. As fumigation science occurs in all three phases across a multitude of environments, the intent is to welcome scientists and policy makers from a variety of disciplines, including: environmental, toxicology, entomology, food science, soil science, and analytical.

In addition to AGRO, this symposium would be of interest to ENVR and AGFD divisions.

Suggested Topics

- Gas measurement
- Gas dispersion and reactivity models
- Residue methods
- Target and non-target toxicology
- Registration and tolerance issues
- Novel fumigants
- Fumigant alternatives
- Crop trade barriers

For further information, contact the organizers

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Developments in Regulatory Science: It's Testing, and It's Research

Purpose of Symposium

To obtain regulatory approval for sales of a crop protection product, a large set of data characterizing the properties, environmental behavior, hazard and potential risk resulting from the potential use of the substance is required. The studies for generating this information are generally executed under well-defined testing guidelines. However, regulatory scientists performing these studies inevitably encounter scientific challenges in study design and execution when answering key questions about the attributes of the tested compound.

This symposium seeks to explore how the application of the principles of good scientific methods and practice are applied to address these challenges within a constrained testing environment. Papers are encouraged encompassing all disciplines of regulatory science, including environmental fate and metabolism, residue chemistry, ecotoxicology, analytical methods, toxicology, and product chemistry. This session will be of interest to regulatory scientists in industry and contract testing organizations, academics, and government scientists. Sharing of ideas and experiences from other ACS divisions such as ANYL, TOXI, and ENVR is encouraged.

Suggested Topics

- Application of hypothesis development and testing to regulatory science research
- Employing experimental design principles for optimal and efficient study execution
- Case studies describing experiments outside of typical guideline testing while still ensuring compliance with regulatory expectations
- Design of advanced studies to provide answers to non-standard regulatory questions
- Optimization of current and development of new regulatory test designs and guidance
- Development of tiered testing strategies
- Application of advanced statistical techniques to data generated in regulatory science studies

For further information, contact the organizers

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Drones and Disruptive Application Technologies

Purpose of Symposium

This symposium is intended to facilitate dialogue among scientists to examine the opportunities and challenges associated with the use of unmanned aerial vehicles (UAVs, aka drones), ultra-low volume (ULV), and other novel application technologies to enhance efficiency and sustainability in agriculture. Presentations related to pesticide application technologies, fertility, pollination, field scouting, and other related topics are encouraged.

The symposium will provide a forum for interactions among academia, industries, and government agencies. It will enhance understanding of novel application technologies and related activities that have implications for agricultural and related industries, public interest, and the environment, as well as stimulating progress toward developing these new technologies on a sustainable path. This symposium may be of interest to other divisions such as ENVR and ANYL.

Suggested Topics

- Unmanned aerial vehicles (UAVs, aka drones) in agriculture – application technologies and scouting
- Unconventional uses of UAVs
- Crop input technologies with ultra-low volume (ULV) applications
- Environmental sustainability, novel formulations
- Tailored solutions to reduce crop input
- Regulatory aspects of application technologies – risk assessment and best practices
- Evaluation of in-field performance, off-target drift, operator exposure, etc.
- Model development associated with UAV application

For further information, contact the organizers

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Effects of Climate Change on Agriculture, Species, and Agrochemical Efficacy

Purpose of Symposium

The ever-increasing speed of climate change demands both knowledge and discourse to prepare ourselves for the impact. This symposium explores research into that impact on crops and nutritional value, agricultural practices, species, water scarcity, and other issues.

Due to the global nature of climate change, national and international perspectives are welcome. Agrochemical scientists as well as members of AGFD and ENVR and anyone interested in this important issue may wish to attend.

Suggested Topics

Typical topic areas with the context of climate change may include:

- Impact on agrochemical environmental fate and behavior
- Changes in the geographic pattern of beneficial and pest species
- Influence of changing weather patterns on crops
- Modeling climate change impacts on agriculture, species, and agrochemical efficiency
- Changes in nutritional value of crops
- Water issues including both scarcity and flooding
- Relevant current U.S. and global policy issues
- Evaluation and or suggestions for future U.S. and global policy issues

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. Presented information is 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 application techniques 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
- 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
- Novel laboratory or field fate study designs
- Characterizing the fate of biopesticides

For further information, contact the organizers

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Evaluation of Mixtures Through the Lens of Risk Assessment

Purpose of Symposium

Evaluating environmental risks of mixtures of potential stressors can be difficult and complex. Both can arise from the uncertainties in temporal and spatial aspects of environmental exposures, as well as poorly understood interactions in non-target organism effects. Therefore, an active area of research continues to be assessing the potential impacts of agrochemicals mixtures to nontarget organisms. Advancements in exposure and toxicity modeling approaches have the potential to reduce uncertainties and improve the relevance of risk estimates when assessing mixtures of agrochemicals.

During this session, research relating to environmental modeling of mixtures, additivity models, and their use in evaluation of risk to nontarget organisms will be discussed. Outcomes from this session will include recommendations to address regulatory issues in the area of mixture assessments and recommendations on the design, analysis, and interpretation of mixture studies. This session will interest environmental toxicologists, environmental modelers, risk assessors, and risk managers.

Suggested Topics

- Approaches to model combined environmental mixtures in aquatic and terrestrial environments
- Case studies to assess risks of agrochemical mixtures to nontarget organisms
- Environmental assessment of discrete tank mixtures to nontarget organisms
- Current regulatory issues related to mixture assessments
- Selection of non-interaction modes in environmental risk assessment
- Approaches for the design, analysis, and interpretation of environmental risks of mixtures to nontarget organisms

For further information, contact the organizers

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Everything You Ever Wanted to Know about Glyphosate: A Transparent Look at the Science

Purpose of Symposium

Glyphosate has become the primary tool for weed management in the United States and much of the world. This valuable tool is at risk due to several issues such as evolved resistance and perceived environmental and health issues.

The risks and benefits of glyphosate to agriculture and the environment, as well as its risks in human health will be discussed by an array of experts. The outcome should be a better science-based understanding of the actual risks and benefits of glyphosate. This symposium should be of interest and benefit to toxicologists, agriculturalists, food scientists, and environmental scientists. Some members of AGFD and ENVR members will have an interest in the symposium.

Suggested Topics

- Effects of glyphosate on crops and soil
- Glyphosate resistance
- Glyphosate in soil and water
- Glyphosate's role in agriculture
- Environmental safety
- Human exposure and risk
- Glyphosate in food
- Human toxicity

For further information, contact the organizers

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Extending the Boundaries of Pollinator Research and Risk Assessment Methodologies for Pesticides

Purpose of Symposium

This symposium is focused on novel or unique test organisms, innovative research methods, and groundbreaking approaches to how the effects of pesticides on pollinators are evaluated at the individual, community, and population levels, with the common goal of speaking to how these improvements can allow us to re-think, advance, or standardize pollinator risk assessments (PRA).
While there are good reasons to focus PRA on a single surrogate species, the honey bee, there is growing concern for non-Apis pollinators given reported global declines in entomofauna, and there is increasing interest among regulatory authorities (EPA, PMRA, and EFSA) in accounting for potential impacts of pesticides on unrelated pollinators, such as birds and bats.

While toxicity and exposure testing underpins PRA, new approaches, including the use of models to enhance data interpretation, or application of -omics research to broaden taxa, are of interest for this session.

Other ACS Divisions that might be interested: ANYL, ENVR, AGFD.

Suggested Topics

- Advances in understanding how the science of pesticide effects on pollinators is evolving, and how it contributes to the practice of PRA
- Development of reliable laboratory protocols for non-*Apis* bees and lepidopteran pollinators
- Development of reliable field protocols for pollinator toxicology studies
- Validation or use of models to simulate the effects of pesticides and other stressors or enhance data interpretation
- Advances in epidemiological modeling of pollinator populations, communities, or plant-pollinator interactions
- Use of -omics to understand the range of effects on pollinator species and/or identify species with potential unique sensitivities not represented by honey bees

For further information, contact the organizers

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Formulation Science: An Area for Practical Surfactant and Colloid Applications

Purpose of Symposium

This symposium covers industry, government, and academia advancements on formulation solutions through surface and colloidal chemistry as well as application technologies.

The target audience for this symposium includes scientists interested in the application of surfactant and colloid science to develop formulations and application technologies that benefit from surfactant and colloid science to deliver solutions across industries.

Participants in this symposium will have the opportunity to gain insights into the challenging formulation science of traditional chemical active ingredients (agrochemical, pharma, personal care, etc.) as well as microbial/biological solutions and even the viability of premixes between them.

The symposium will explore how sustainability could influence novel delivery systems and end user product performance as well as application technologies and their optimization methods.

This symposium may be of interest to both AGRO and COLL divisions.

Suggested Topics

- Formulating complex multi-active ingredient products, including biologicals
- Advances in additives and adjuvants to improve performance or mitigate adverse effects of actives, including microbial, biological, and/or sprayable RNAi
- Advances in delivery system technology (*e.g.*, nanotechnology, controlled or triggered release)
- Formulations that compatibilize small molecule and biological mixtures
- Offsite drift reduction through management of formulation physical-chemical properties
- Formulating to optimize coating treatment processing/performance (*e.g.*, paints, seeds treatment, powder/liquid coatings)
- Precision and customized delivery (*e.g.*, sensor development, real time monitoring of applications, variable rate application, and drone applications)

For further information, contact the organizers

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August 16 – 20, 2020

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From Cellar to Market:
The Impact of Losing MRLs on Long-term Stored Food Products

Purpose of Symposium

Since the mid-1980s, there has been a growing interdependence among countries as a result of the integration of trade, finance, people, and ideas into one global marketplace. Technological advances, lowered transportation costs, and fast global communication have been some of the drivers. There has also been increasing liberalization of trade and capital markets, with the World Trade Organization (WTO) playing a role in promoting fair trade to overcome protectionism. The world population is estimated to increase to approximately 9 billion by 2050, which translates into a huge demand for food/feed. For the production and trade of agricultural commodities to meet this demand, global harmonization of MRLs is critical, and over the past several years the Agriculture and Food industry have been working on addressing this highly complex issue, with multiple stakeholders and many contributing factors.

There has been mixed success through these efforts. However, there is an important category of product which has a unique challenge. These are long shelf-life products, and in some cases the monetary value of these products goes up with time. The purpose of this symposium is to discuss challenges, opportunities, and threats associated with food and beverage products due to missing MRLs and varying Channels of Trade regulations across different markets.

Suggested Topics

- The impacts of deleting MRLs or no transition periods, especially in long shelf-life products
- Explanation of importing countries' regulatory systems or how countries use Codex. Can an ideal state of global MRL harmonization ever be reached?
- Definition of pesticide residues and the regulatory status of "dual-use" substances: Pesticide vs. Biocide
- Degradation curves and what they really mean? Impacts of degradation products that might be shared with other sources (*e.g.*, sodium)
- Label use vs. actual use, and impacts to pesticide residues on raw agricultural commodities and finished products
- Analytical methods used for enforcement, their sensitivity and chasing zero
- Old agrochemical chemistries vs. new agrochemical chemistries – are chemistries today safer and more sustainable?
- Agrochemicals approved for "organic" – pros and cons compared to synthetic chemistries and consumer perception of "safer" agrochemicals
- Fighting pest resistance while balancing consumer perception, safety, and efficacy

For further information, contact the organizers

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Gene Editing in Agriculture: Leveraging New Breeding Tools to Improve Crops and Their Production

Purpose of Symposium

CRISPR and other gene editing technologies are now powerful breeding tools that provide unique opportunities in agriculture. These technologies utilize the sequence specificity of RNA to edit specific genomic loci, regulate the expression of specific genes, or introduce allelic variations to achieve desired consumer focused benefits (*e.g.*, taste, nutrition, and appearance), agronomical benefits (*e.g.*, yield and disease resistance), and environmental benefits (*e.g.*, reduction in food waste and its impact on carbon footprint). This symposium will provide a platform for communication about gene editing in agriculture – technology advancement, applications, opportunities, and challenges. Government, academic, and industry researchers are encouraged to share the unique perspectives from their sector, or to highlight outcomes of collaborations or working groups. Besides AGRO, this session will be of interest to AGFD and BIOL members of ACS.

Suggested Topics

- CRISPR/gene editing applications, including enhanced food nutrition and production, disease resistance and crop protection, and other applications
- Status of the local and international regulatory policies and the implications on international trade
- New opportunities and challenges
- Analytical challenges and solutions including tools and strategies for traceability and detection of commercial gene editing products in the food supply
- Communication of new technologies to the public, including managing perception and education

For further information, contact the organizers

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Higher Tier Environmental Fate Studies and Modeling for Regulatory Submissions

Purpose of Symposium

Robust environmental fate (efate) studies and environmental modeling play a critical role in pesticide registration processes worldwide. Generally, a standard set of efate experiments (following OECD guidelines) and modeling routines (*e.g.*, FOCUS models, PWC) are used for this purpose. However, higher tier studies/modeling are more frequently required for complex efate challenges or to demonstrate a safe use of a product.

Some efate/ modeling options for higher tier are as follows i) inverse modeling to derive kinetic (aged) sorption parameters in lab/field studies, ii) higher tier leaching experiments, *e.g.*, column/lysimeter studies, (iii) using modeling approaches to address non-extractable residue issues, and (iv) predicting outcome of outdoor water sediment studies using data from aqueous photolysis and dark water sediment studies, etc.

This symposium is of interest to scientists from industry, governmental agencies, and academia, with backgrounds in efate/metabolism, modeling, risk assessment, field dissipation studies, etc. Higher tier approaches, strategies, and findings will be presented. The goal is to understand the acceptability of efate higher tier studies and modeling approaches by different regulatory agencies around the world and their impact on registration.

Suggested Topics

- Time dependent sorption studies
- Inverse modeling of field studies to determine non-equilibrium input parameters
- Metabolite (applied as parent) field dissipation studies
- Groundwater monitoring
- Column/Lysimeter studies
- GIS and geospatial modeling
- irradiated water sediment studies
- Modified Surface water mineralization test
- Harmonization of efate studies/modeling

For further information, contact the organizers

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Impact of Evolving Instrumentation on Agricultural Science Regulation and R&D

Purpose of Symposium

Modern agricultural science research is heavily dependent on advanced instrumentation and software technologies to characterize a molecule with respect to its structure, function, mode of action, etc. Advances in all analytical technologies including NMR, chromatography (LC and GC), mass spectrometry, IR, and Raman, combined with modern software tools and computing power, have enabled researchers in academe and industry to discover and develop newer crop protection molecules with good safety profiles and high efficacies, to breed new crop varieties with improved desired characteristics (*e.g.*, yield, nutrition), and to introduce crops with non-native traits. The advances in analytical technologies have been critical in enabling the agroscience industry to meet newer regulations that push these analytical tools to the limit of detection.

This symposium will provide a platform to provide an historical perspective on analytical instrumentation and to discuss emerging, cutting-edge analytical technologies that will serve the needs of future for agroscience R&D. Other ACS divisions that may benefit from this symposium are ANYL, ENVR, and AGFD.

Suggested Topics

- Trace the development of analytical technologies (MS, NMR, IR, UV, Raman, LC, GC, hyphenated techniques) over the past 50 years and their impact on agroscience R&D
- Impact of modern analytical tools on agroscience R&D
- Analytical technologies for biologicals such as biomarkers, proteins, and genes
- Impact of software; advances in computation on agroscience R&D
- Analytical tools to meet newer regulations
- How have changes in regulations been driven by advances in instrumentation
- Cutting-edge sample preparation

For further information, contact the organizers

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INSecticides and TARgets (INSTAR) Summit

Purpose of Symposium

The INSecticides & TARgets (INSTAR) Summit was initiated in 2016 as a component of the AGRO division programming at the ACS National meeting as a platform for scientists to share their knowledge and expertise for the discovery of insecticide chemistries, and their development, registration, and delivery as sustainable management solutions for insect pests. This initial effort stimulated the formation of an INSTAR liaison group to organize an annual INSTAR Summit as part of the AGRO division programming at the ACS National meeting.

The purpose of the Summit is to highlight research from early-to-senior career scientists across academic, industry, and government sectors as a mechanism to stimulate focused discussions on knowledge gaps, future directions, and deliverable solutions to challenges related to insecticide science. The Summit will provide a series of special topic presentations that focus on innovative comparative toxicology and functional genomics approaches for the purpose of identifying insecticide targets, chemistries, and resistance mechanisms that will lead to the development of insect pest management strategies.

To complement these presentations, a joint poster and networking session will be provided for the Summit attendees to highlight their research activities. Following the special topic presentations, an interactive Q & A panel session will be organized for the attendees to not only ignite a debate on the future directions of insecticide targets, chemistries, and resistance, but engage these scientists in collaborative research and training opportunities for insect pest management.

Suggested Topics

- New and novel insecticide targets
- New and novel chemistry for insect control
- Natural products for biorational control
- 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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Let's Make it Work:
Balancing Both Crop and Species Protection

Purpose of Symposium

Growers are faced with increasing and changing pest pressures requiring advanced crop protection products to maintain and increase productivity. Likewise, species listed under the Endangered Species Act (ESA) are threatened by a variety of stressors requiring novel approaches to protect and enhance habitat and lead to eventual recovery. The agricultural chemistry industry is exploring strategies and implementing projects that provide access to pest management tools while directly benefiting species and providing additional environmental benefits. Advances have provided opportunities to develop techniques to identify sensitive areas needing protection, reduce unintended pesticide exposure, and optimize land use and production. Under the FIFRA/ESA framework, opportunities exist to implement avoidance, minimization, and mitigation measures, including conservation offsets. Industry strategies for going forward should be clear and well-defined for successful implementation and measurable results.

Pesticide registrants and end-users must balance both crop and species protection. This symposium will focus on how ESA species impact assessment and consultation processes intersect with the FIFRA risk assessment process, including use and usage of pesticides, and other relevant data resources. Pesticide registrants, pesticide users, regulatory and wildlife management agency staff, and conservation-based organizations that attend the AGRO and ENVR sessions of the ACS meeting will find this session noteworthy and educational.

Suggested Topics

- How to avoid, minimize, and mitigate in the context of the ESA Section 7 Consultation process
- Industry-wide strategy for effective registrations, including effective Section 7 Consultations, and delivery of conservation measures
- How product labels link with species protection
- State-led certification and conservation programs
- Tools, data, and environmental models which quantify species impact assessments to inform the FIFRA/ESA registration
- Successful grower stories of balancing crop protection and species stewardship, including participation in ecosystem services markets.

For further information, contact the organizers

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Microplastics: Environmental Fate, Potential Effects, and Stewardship

Purpose of Symposium

Plastics benefit our society and quality of life, but the occurrence of microplastic (<5mm) pollution in aquatic and terrestrial ecosystems is a growing global concern. Examples of sources of microplastic contamination to the environment include textiles, personal care and home products, plastics, and application of fertilizer, plastic mulch, and sewage sludge to agricultural fields. Adverse effects to aquatic ecosystems have been documented, but less is known regarding the impact to terrestrial ecosystems, agricultural soil, human health, and our food supply.

This symposium will discuss the current science, research, potential impact, risk assessments, stewardship, regulations, policies, and sustainable solutions for microplastic environmental contamination in aquatic and terrestrial ecosystems, considering both urban and agricultural settings. We invite researchers, scientists, regulators, policy makers, and people interested in microplastics to participate in this symposium.

Suggested Topics

- Occurrence of microplastics: local, national, global
- Benefits and concerns of plastics and microplastics
- Environmental fate, modeling, and risk assessments of microplastics
- Stewardship and solutions to mitigate concerns of microplastics
- Monitoring and analytical methods
- Policy and regulation of microplastics
- Bio-based plastics, polymers, and sustainable solutions
- Wastewater and stormwater management of microplastics
- Microplastics and agriculture, impact to food security?

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Modernization of Inhalation Assessments

Purpose of Symposium

Recent advances in dosimetry models for inhaled particles and gases and new approach methodologies (NAMs) based on *in vitro* tools promise to improve and modernize the inhalation risk assessment paradigm. Recently refined frameworks employ exposure alignment across different experimental platforms to support accurate evidence integration. Uncertainty is reduced through integrating hazard and exposure characterization resulting in human health risk assessments that are precise, accurate, and health-protective.

This symposium will bring together new knowledge on various components of human health and exposure assessments, including inhalation exposure modeling, aggregate exposure and adverse outcome pathways, *in vitro* to *in vivo* extrapolation (IVIVE), risk characterization, and mitigation approaches, as well as information on newly available or refined datasets. This symposium will improve knowledge and identify research needs on these critically important topics.

Presentations describing original research, novel risk assessments approaches, and cases studies which address these and related topics are encouraged. The symposium will provide a platform for interaction and discussion between academic researchers, industry professionals, and regulators involved in conducting human health and risk assessments of inhaled agents. In addition to AGRO, this session will be of interest to TOXI members of ACS.

Suggested Topics

- New generation advances in dosimetry models for inhalation risk assessments (*e.g.*, hybrid physiologically Based Pharmacokinetic - Computational Fluid Dynamic (PBPK CFD), multipath particle dosimetry (MPPD) model for vapors)
- Human *in vitro* tools for human risk assessments (*e.g.*, MucilAir™, etc.)
- Examples of modernized workflows including systematic review and AEP or AOP
- Case studies for refined inhalation assessments
- Data generation and characterization of human-relevant particle size distributions

For further information, contact the organizers

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Natural Products as Agrochemicals

Purpose of Symposium

Natural products offer diverse classes of compounds that can be used as agrochemicals or as templates for the development of potent agrochemicals. These agrochemicals can possess antifungal, insecticidal, and phytotoxic activities, as well as plant growth stimulation activities. The sources for such compounds can be from microbes, marine organisms, and higher pants. The purpose of this symposium will be to exchange scientific ideas among scientists who are working in this field. This symposium will be limited to invited speakers nationally and internationally. The scientists who attend this symposium will be able to foster collaborations and exchange scientific ideas.

Suggested Topics

- Fungicides that can be used in pre- and post-harvest applications of agricultural produce
- Herbicides from plants and microbes that can replace synthetic, environmentally harmful herbicides
- Algicides that can be used in aquaculture
- Possibility of interests in industry in further development of potent compounds that can be developed as commercial products

For further information, contact the organizers

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Non-Extractable Residues of Pesticides and Other Chemicals in Soil: Challenges, Strategy, and Regulation

Purpose of the Symposium

The purpose of this symposium is to provide a forum to present the latest advances in research on non-extractable residues (NER) of pesticides and other chemicals such as pharmaceuticals in soil and other media, and their impact on risk assessment in the context of regulation.

There are several challenges for NER environmental risk assessment. First of all, it is difficult to clarify the nature of NER or determine major contributing molecular entities. Second, it is a challenge to determine NER's binding mechanisms – physically entrapped, covalent bonded, or bio-fixed. Third, techniques for measuring NER's mobility, bioavailability, and ecotoxicity are still lacking. Challenges also vary from one molecule to another.

Characterization of NER is mandatory under regulation. Recently, the US EPA and the European Chemicals Agency (ECHA) have published a guidance/discussion paper on NER and its characterization. However, the guidance on environmental risk assessment is still limited.

This symposium intends to bring together scientists from academia, industry, and regulatory agencies to share their insights and formulate strategies on NER in its speciation, mobility, bioavailability, and ecotoxicity, and build up a scientific foundation for environmental risk assessment.

Submissions from other ACS divisions such as ENVR, AGFD, and ANYL are also welcome.

Suggested Topics

- Sequential matrix-altering or destructive extraction methods for characterization of non-extractable residues in soil
- Methods for determining the biogenic fraction of NER and their impact on risk assessment
- Speciation of major molecular entities contributing to NER via kinetics modeling
- Techniques to determine binding mechanisms of NER in soil and other environmental media
- Leaching studies to determine potential mobilities of NER
- Methods to determine bioavailability and ecotoxicity of NER
- Tiered strategy for NER environmental risk assessment
- Latest developments in NER regulation
- Practical experiences and lessons learned from the EPA guidance and ECHA discussion paper

For further information, contact the organizers

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Off-target Transport of Field Applied Agricultural Chemicals

Purpose of Symposium

Emerging technologies and increased scrutiny of off-target transport of applied agricultural chemicals require adaptation of innovative and creative approaches to meet changing regulatory and stewardship requirements. The purpose of this symposium is to leverage our understanding of off-target transport of agricultural chemicals (including pesticides, fertilizers, veterinary medicines/nutrients), discuss study designs and best practices for existing and emerging guideline studies, and identify methods to incorporate available data and modelling approaches into risk assessment, risk management, and regulatory decision making.

The symposium should be of interest to scientists, risk assessors, modelers, and fate experts from academia, industry, and government agencies involved in designing laboratory and field studies, modelling and model development, risk assessment, stewardship, and database management. This symposium is open for collaboration with other divisions such as ENVR and ANYL.

Suggested Topics

- Designs to capture mass balance or movement of field applied pesticides/manure/fertilizers
- Differentiation of off-target sources and impact on receiving waterbodies, sensitive crops, or endangered species
- Leveraging available monitoring data to help inform regulatory decision making
- Reconciling model predictions with monitoring data
- Higher-tier field study designs and model development for assessing exposure
- Product stewardship and/or realistic farming practices to mitigate off-target transport (drift, runoff/erosion, volatilization)
- Leveraging digital farming technologies for targeted application and reduction of field emissions

For further information, contact the organizers

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Pesticides from Bench to Market: Safeguarding Sensitive Species

Purpose of Symposium

By the time a pesticide registration package is submitted to the US EPA for review under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), years of work have been completed by the pesticide manufacturer. This includes chemistry discovery efforts, new product labeling development, efficacy and field trials, evaluating human health and drinking water safety, non-target toxicity testing, and market and benefit analysis. This data development process has many safeguards in place to ensure that pesticide products submitted for registration have met at least a minimum level of human health and environmental protection standards. Additional protection measures are implemented during EPA's registration process, and through subsequent consultation with the US Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS), if potential threats to species listed under the Endangered Species Act are identified. Once an end use label is registered, implementation or use may be further impacted by state and local actions responsive to local conditions and concerns

This symposium will follow pesticides from discovery to end-user application and explore various steps along the way that ensure environmental and non-target species protection. Pesticide registrants, agencies responsible for pesticide review and approval, end-users, researchers, and others attending the AGRO and ENVR sessions will find this session informative.

Suggested Topics

- Components of product discovery
- Field trials and efficacy testing
- Market research and benefits assessments
- Decisions on labeling
- Avoidance, minimization, and mitigation options
- How end user choices are made and why
- State and local actions responsive to local conditions

For further information, contact the organizers

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Physical Chemistry Testing Guidelines: Complex Challenges During Simple Tests

Purpose of Symposium

The physical chemistry testing guidelines are meant to define important properties that define hazard assessments, prerequisites for other relevant tests, and guidance information for optimizing other relevant tests. The studies for generating these properties are generally short duration studies with well-defined endpoints. However, the nature of some test materials makes adhering to the guidelines and/or achieving said endpoints challenging.

This symposium seeks to define the testing guidelines and explore challenges that are faced during the determination of physical chemistry properties of compounds, and especially the methods and experimental designs that are used to overcome these challenges. Papers are encouraged to address any of the regulatory product chemistry guidelines and the different types of compounds that are tested by them. This session will be of interest to regulatory scientists in industry, contract testing organizations, as well as academic and regulatory scientists. Sharing of ideas and experiences from ACS divisions such as ANYL, TOXI, and ENVR are encouraged.

Suggested Topics

- Test designs of different product chemistry studies to meet global registration requirements
- Defining and identifying impurities in batch analysis studies
- Testing mixtures in studies meant for test substances that are of high purity
- Designing/performing preliminary experiments to set up studies for success
- Case studies describing experiments where design changes were necessary to achieve the study endpoints
- Use of different types of analytical methods in the performance of product chemistry studies and challenges they might add

For further information, contact the organizers

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Process Research and 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. Crop protection process chemists must develop processes to deliver large volumes of active ingredient, typically in the range of hundreds of metric tons per year that meet relatively low-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 process analytical technology (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 organizers

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

Purpose of Symposium

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

The General Session therefore allows our members and other scientists to submit papers even though a specific symposium topic is not offered.

This year, only poster presentations are possible; every attempt will be made to group papers into "mini-symposia" within this session.

Suggested Topics

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

For further information, contact the organizer

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Residue Analytical Method Development for Global Use: Advances in Robust, Cost Effective, and Innovative Techniques

Purpose of Symposium

The goal of this symposium is to share practical and novel approaches for the development of analytical methods for residue analysis of various sample types including soil, water, crop commodities, bee matrices, etc.). This symposium will initiate discussion about different approaches for developing methods, guideline requirements for global use, and new technologies to provide cost-effective and high through-put analytical methods for the analysis of field samples.

Representatives from industry, academia, and government are invited to share their perspective on analytical method development for residue analysis. Other ACS divisions which may benefit from this symposium are ANYL, ENVR, and AGFD.

Suggested Topics

- Analytical methods for challenging sample types (*i.e.*, unusual matrices, *e.g.*, hop, body fluids, processed food fractions or ingredients)
- Extraction efficiency of incurred residues: principles and approaches for various analyte classes and sample types
- Utilization of new technologies in residue analytical methods (*e.g.*, HRMS, Ion mobility, DART/DESI, Flow injection Analysis)
- Multi-residue methods for residue analysis, global perspective, advantages and limitations.
- Automation for routine analysis
- Challenges and best practices for analytical method transfer and implementation

For further information, contact the organizers

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January 6 – March 30, 2020

Call for Papers

260th ACS National Meeting & Exposition

August 16 – 20, 2020

San Francisco, California USA

Semiochemical Communications in Agricultural Ecology

Early Career Scientist Symposium

Purpose of Symposium

Chemical signals (semiochemicals) play an important role in communication among plants, insects, pests, and microorganisms, including bacteria and fungi. Although there has been steady research on this subject over the last two decades, identification of functional components is needed for many new discoveries. Therefore, research focused on a wide range of complex chemical interactions between organisms is still critical.

This symposium will highlight the research of graduate students, post-doctoral fellows, and early career scientists from academic, industry, and government backgrounds. Participants are encouraged to share their latest research results, challenges, and novel experimental approaches for studying ecological interactions and agriculturally-related issues. The forum will also provide an opportunity to strengthen professional networks among early career scientists and serve as a platform to foster future collaborations. Ecologists, chemists, entomologists, biologists, plant physiologists, plant pathologists, and environmental engineers will benefit from the presentations. This symposium welcomes participants from other ACS divisions, such as AGFD, ANYL, BIOL, BIOT, and ENVR.

Suggested Topics

- Semiochemicals for insects and pests; pheromones; allomones; kairomones; synomones; olfaction; electrophysiological responses; host-plant location, mating behavior
- Plant perception and response; volatile cues for plant-plant communication; herbivore-induced volatiles; predator-prey interactions; belowground communication; social communication
- Symbiotic interactions: insect-microbe chemical ecology; belowground interactions and soil microbes
- Collection, isolation, and structural elucidation of volatile and non-volatile semiochemicals; synthesis of semiochemicals
- Ecological implications of flowering communication; impacts of volatile organic compounds (VOCs) on plant-pollinator interactions in natural and agricultural landscapes; floral volatiles and visitors; chemical signals for bumblebees
- Integrated pest management (IPM) strategies for agricultural pests: development of synthetic blends or formulations; efficacy of synthetic lures; new futuristic technologies for pest monitoring and control systems; nanotechnology for insect pest control; new products from bench to market

For further information, contact the organizers

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Statistical Modeling and Analysis for Agrochemical Research Data

Early CareerScientist Symposium

Purpose of Symposium

With the improvement of computational power and availability of statistical software, more statistical models and approaches are being developed and applied in scientific research, including the agrochemical field. The purpose of this symposium is to facilitate the communications of scientific information and cutting-edge knowledge about the statistical models and data analysis approaches for experimental design and data analysis. A secondary goal is to provide a platform for postdoctoral and early career scientists to present their latest research results and to serve as a platform to foster future collaborations.

Researchers who adapt models from other disciplines or propose new approaches for analyzing agrochemical data are welcome to present their latest work. Researchers, policy makers, consultants, and industrial manufacturers can discover more cost-efficient ways for experimental design, monitoring, data analysis, and risk assessment. Agricultural and environmental software companies might be interested in commercializing the proposed methods. Other divisions, such as ENVR and AGFD might also be interested in this symposium.

Suggested Topics

- Application of novel statistical approaches for agrochemical studies
- Analysis, and how to maximize the information from drone generated field data
- Bayesian approach and utilization of prior knowledge
- Statistical techniques for agrochemical experimental design
- Errors and uncertainties in model structure, parameters, and measurements
- Risk assessment and risk management
- Evaluation of current regulatory statistical approaches and its implications

For further information, contact the organizers

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Stereoisomers: Regulatory Strategies and Technical Advances

Purpose of Symposium

Placement of safe and effective plant protection products on the market has been increasingly challenging. Recently, EFSA has issued regulatory guidance on risk assessments for plant protection product (PPP) active substances that have stereoisomers as components or impurities, or that generate transformation products that may have steroisomers.

This symposium will provide a platform to discuss regulatory strategies for risk assessments of PPP active substances or impurities containing stereoisomers and those active substances generating transformation products that may have steriosomers, including data generation and assessments. Also, analytical methods and technologies for the determination of actives, impurities, and transformation products in formulations and in plant, animal, and environmental samples involving separations of steroisomers (diastereomers and optical isomers) by chromatography or other techniques will be discussed. Other ACS divisions that may benefit from this symposium are ANYL and ENVR.

Suggested Topics

- Regulatory strategies for risk assessments of plant protection product active substances containing stereoisomers as components or impurities or generating transformation products that may have stereoisomers, data generation, and assessments
- Chiral separation technologies for agrochemical actives, impurities, and transformation products
- Advances in analytical technologies for separation of stereoisomers (small molecules)
- High-throughput analysis of chiral compounds (small molecules) at trace levels
- Proposals or examples of how to conduct risk assessment of stereoisomeric residues
- Case studies where stereoisomers were evaluated

For further information, contact the organizers

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Call for Papers

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Strategies for Insecticide Mode of Action Discovery

Purpose of Symposium

In the face of a changing regulatory landscape and the threat of resistance development, there is a need for the continued search for novel pest control solutions that prove at the same time efficacious and safe to non-target organisms. In this session we hope to engage public and industry scientists in an open discussion and idea exchange around advances in insecticide discovery and target deconvolution. Mode of action elucidation strategies as well as target-based screening approaches will be discussed that might support the development of new active ingredients.

This symposium would be of interest to AGRO researchers, regulators and administrators interested in insecticide mode of action and discovery, and may also be of interest to AGFD, BIOL, and MEDI members of ACS.

Suggested Topics

- Mode of action elucidation strategies and impacts to product advancement and/or registration strategies
- Target deconvolution methods
- Target mining
- *In silico* screening
- *In vitro* screening
- Nature-inspired approaches
- Computational approaches

For further information, contact the organizers

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Sustainability in Agriculture: Understanding the Environmental Footprint of Developing Crop Protection Products

Purpose of Symposium

Sustainability in agriculture is critical due to the growing population and rising size of the food value chain. The environmental footprint of crop protection products spans from synthesis and selection of analog to customer end use of applying the crop protection product in the field. Green chemistry principles are applicable throughout this entire span.

This symposium highlights the environmental footprint of developing crop protection products and efforts in the field to improve the sustainability. Papers are encouraged from all areas within discovery and development of crop protection products that address design of molecules, characterization of molecules, analytical assessment, formulation development, regulatory guidelines, biologicals, and application of product. Sharing of ideas and experiences from ACS divisions such as ANYL, COLL, ENVR, MEDI, and ORGN are encouraged.

Suggested Topics

- Biologicals as sustainable products
- Digital tools for precision application and optimizing use of resources
- Design and synthesis of active ingredients
- Manufacturing of active ingredients
- Development of formulation
- Application of crop protection products
- Green approaches to nitrogen fertilizer
- Regulatory influences and sustainability guidelines

For further information, contact the organizers

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San Francisco, California USA

Synthesis and Chemistry of Agrochemicals

Purpose of Symposium

The ability to develop new active ingredients for use as crop protection products will be fundamental in meeting the dietary needs of a growing population. In addition to realizing ever-increasing potency requirements against key pest species, modern agrochemicals must also clear highly stringent regulatory milestones in order to reach the market.

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 chemistries targeting crop protection or animal health are welcomed. Lectures focusing on regulatory-guided analog design, process route development, and/or synthesis of ^{14}C and ^{3}H-labeled agrochemicals are also invited.

Suggested Topics

Suggested topics for this symposium include, but are not limited to:

- The discovery and synthesis of insecticides, herbicides, fungicides, or nematicides
- The structure-activity relationships (SAR) of new agrochemicals
- Mode-of-action studies for the identification of new agrochemicals
- Process route development to new crop protection products
- Synthetic methodology development in the context of agrochemical development
- The isolation, structure determination, and biological characterization of natural products with insecticidal, herbicidal, fungicidal, or nematicidal activity
- Novel route development for the preparation of radiolabeled agrochemicals
- Utilization of synthesis and scaffold design to meet regulatory requirements

For further information, contact the organizers

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Task Force Data Generation for Risk Assessment

Purpose of Symposium

Data generation for regulatory decision making, particularly for risk assessment purposes, has become both complicated and expensive for the regulated community. Additionally, comparing data generated by a wide variety of submitters, often using different protocols and methodology, makes regulatory decision making difficult. One approach to addressing these problems is for the regulated community to collaborate to generate a common dataset of exposure values that can then be used by regulators in their evaluation of individual products.

This symposium will highlight the formation, operation, and data submission of Task Forces formed to answer specific regulatory questions, along with the regulatory use of the submitted data.

Suggested Topics

- History and updates of Activity-based Task Forces
- History and updates of Compound-based Task Forces
- Regulatory use of Task Force data
- Data exclusivity and data compensation for Task Force generated data
- International use of Task Force data
- Opportunities for future Task Forces

For further information, contact the organizers

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Technologies and Predictive Tools for Metabolite Generation, Identification, and Assessment

Purpose of Symposium

During agrochemical or drug discovery stage, it is critical to elucidate metabolic soft spot and biotransformation pathways, which could impact biological efficacy and toxicity. However, metabolite identification and assessment remain an extremely challenging task due to the trace level and the complexity of the biotransformation. To overcome these challenges, especially under the more stringent regulatory environment, it becomes imperative to have innovative, efficient, and cost-effective approaches to generate and predict metabolites for further characterization and informed analog advancement decision. In addition, early understanding of the major metabolic pathway makes it more efficient in regulatory metabolism studies for new pesticide registration.

This symposium will provide a platform to communicate and discuss *in vitro* and *in vivo* technologies for generating metabolites and predictive *in silico* tools to facilitate agrochemical or drug discovery and development. Other ACS divisions that may benefit from this symposium are ANYL and ENVR.

Suggested Topics

- Emerging technologies for generation of metabolites including enzymatic, catalytic, and electrochemical methods
- Cost-effective and robust *in vivo* and *in vitro* technologies to generate metabolites
- *In silico* predictive tools for metabolite identification and assessment
- Innovative pilot metabolism study designs in animal, soil, and plant
- Latest techniques for isolation and purification of metabolites
- Advances in analytical technologies for identification of metabolites
- High throughput metabolite identification approaches
- Quantitative structure-activity relationships (QSAR) models for predicting metabolism

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Three M's of Pesticides in Surface Water: Monitoring, Modeling, and Mitigation

Purpose of Symposium

As new pesticide products enter the market for pest control in agricultural and urban landscapes, it is imperative to understand the sources, transport pathways, and associated human health and ecological risks posed by pesticide applications. Equally important is the ability to potentially mitigate the risk to surface waters, which receive direct pesticide inputs from agricultural and urban landscapes, as well as wastewater treatment plant effluent. Monitoring programs must aim to provide robust data necessary for source identification, trend analysis, and management practice evaluations to support institutional decision making. Model capabilities are continually improving in their ability to predict concentrations along the transport pathway, associated ecological risks to sensitive aquatic species, and design effective mitigation strategies. In order to effectively alleviate the risk to ecological endpoints, mitigation strategies need to be developed with a clear understanding of the extent and sources of the contamination, as well as the physico-chemical and socio-behavioral processes driving the pollutant loading. Evaluations of the effectiveness of management practices allow for further refinements to both monitoring design and model parameterizations. This symposium welcomes submissions that highlight the intersection of monitoring, modeling, or mitigation efforts related to pesticides in surface water.

Suggested Topics

- Interactions between monitoring and model development influencing mitigation design
- Source identification and transport mechanisms responsible for pesticide loading in surface waters
- Pesticides in wastewater treatment systems as potential source to surface waters
- Observed and modeled ecological impacts of contamination
- Data analysis to evaluate extent of contamination and success of implemented mitigation measures
- Monitoring prioritization, methodology, and statistical analysis methods
- Evaluations of mitigation strategies including physical BMPs and regulatory strategies

For further information, contact the organizers

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Call for Papers

260th ACS National Meeting & Exposition

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Vector Control Technologies Now and Into the Future

Early Career Scientist Symposium

Purpose of Symposium

As vectors of human and plant pathogens evolve resistance to currently utilized control chemistries and technologies, it is imperative that researchers develop innovative means to mitigate the health and economic burden in the agricultural and public health sectors. This symposium will highlight early-career investigators and their research programs that aim to develop innovative techniques that reduce the impact of arthropods affecting public/veterinary health and agriculture. Research focusing on controlling rodents and their contribution to human and veterinary disease transmission are also welcome. Contributors will discuss the importance of characterizing biochemical targets and pest biology for the development of repellents, insecticides/acaricides, rodenticides, and novel technologies aimed at controlling future vector/rodent populations. The goal of this symposium is to bring together new and established investigators in the field of vector management and insecticide/acaricide or rodenticide development to bolster collaboration and future research projects. A section of this symposium will highlight the research of early career scientists who are developing novel vector control chemistries and technologies.

Suggested Topics

- Insect-host interactions and repellents
- Overcoming insecticide resistance
- Bringing new products to market
- Biochemical targets of future insecticides
- Agricultural disease vector control

For further information, contact the organizers

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January 6 – March 30, 2020

AGRO Strategic Programming Committee
Standing Programming and Champions

Additional Volunteers Needed for the 2021 Atlanta Meeting

Qing Li, 2020 Committee Chair; qingl@hawaii.edu

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Regulations, Harmonization, and MRLs
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Technological Advances and Applications in Agriculture (*e.g.*, Nanotechnology, Biocontrol Agents, Endophytes and Microbiomes)
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ADDITIONAL SYMPOSIA AT MOST NATIONAL MEETINGS

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

Comments from the Vice-Chair

Qing Li, 2021 Program Chair
qingl@hawaii.edu

As the recently elected 2020 Vice-Chair, I plan to leverage my experiences and interactions that I have had as a long time AGRO member to prepare for the work as your 2021 Program Chair. I am particularly excited about the 2021 meeting in Atlanta, Georgia, as AGRO's 50th Anniversary will enable us to further advance and to achieve a new level of excellence. I have enjoyed working with all AGRO officers and committee members.

Programming Committee. The Strategic Programming Committee, chaired by the Vice-Chair, provides an ongoing forum for discussion of multi-year programming based on the standing topics of proven interest. The committee also discusses ways to partner through programming with other ACS Divisions and other national and international partners.

A key activity of the Programming Committee is to maintain a volunteer list of topic champions in support of symposium planning. Topic Champions are needed to: a) serve as a general resource as an expert in their given area, b) identify timely symposia topics, and c) support specific symposia through identification of and/or mentoring of co-organizers. In addition to the national programming, we are also interested in any ideas our membership would suggest in connecting AGRO better with the ACS Regional meetings in your area.

To Atlanta and Beyond. The overall theme for the Atlanta meeting is ***Resilience of Chemistry***. The AGRO program will also have influences from our 50th anniversary celebration. A key opportunity to discuss programming ideas will be at the Blues and Brews brainstorming session Tuesday night, August 18, at the San Francisco Moscone Center. We look forward to hearing from you in this fun, face-to-face live forum.

Finally, there is no need to wait until Blues and Brews if you have a great idea! I would love to hear from you directly at any time, so please feel free to contact me if you have ideas related to programming in the next few years.

PROGRAMMING AND OUTREACH ACTIVITIES 2020 – 2021

Activity/Event	Leaders/ Champions	Status	Actions Required
2019 – 2020 AGRO Lunch and Learn Webinar Series	Laura McConnell	• Several seminars are scheduled for spring • Proposals for webinars for the 2020 – 2021 are being accepted	• Watch for eNewsletter announcements and sign-up to participate
8th International Weed Science Congress Bangkok, Thailand June 21 – 26, 2020 www.iwsc2020.com		• Abstract submission underway	• Submit abstracts by February 28, 2020
57th North American Chemical Residue Workshop July 26 – 29, 2020 Fort Lauderdale, Florida www.nacrw.org	Steve Lehotay	• Program to be released in February 2020 • Co-Sponsored by AGRO	• Submit abstracts for: **Oral presentations by March 31, 2020** **Poster presentations by April 21, 2020**
260th ACS National Meeting August 23 – 27, 2020 San Francisco, California	Leah Riter	• Call for Papers on the AGRO website • Abstract submission underway	• Submit abstracts by March 30, 2020 • Plan to attend the 50th Anniversary activities
Pacifichem 2020 December 15 – 20, 2020 Honolulu, Hawai'i www.pacifichem.org	John Johnston Ken Racke	• AGRO sponsoring 11 symposia • Call for Papers on the AGRO website	• Submit abstracts by April 1, 2020
262nd ACS National Meeting August 22 – 26, 2021 Atlanta, Georgia	Qing Li	• Planning underway • Symposia proposals (Call for Papers) due November 15, 2020	• Volunteers and champions NEEDED!! • Attend Blues and Brews in San Francisco

2019 – 2020 Lunch and Learn Webinar Series

AGRO provides free and open access to webinar recordings on our website to encourage use by educators, regulators, policy-makers and researchers. Recordings from over 50 scientists are now available on the AGRO website. Topics range from insecticide discovery to advances in measuring pyrethroids, weed resistance, seed treatment, chemical ecology, protecting pollinators, and natural products.

Webinar topics are selected and organized by the AGRO Webinar Committee made up of government, academic, and industry scientists. Topics can be proposed at any time to the committee members John Clark (jclark@vasci.umass.edu), Steven Duke (sduke@olemiss.edu), Laura McConnell (laura.mcconnell@bayer.com), Paul Reibach (phrfect@aol.com), and Prasesh Sharma (prasesh.sharma@bayer.com).

Upcoming Webinars

Pamela G. Marrone, Ph.D.
Marrone Bio Innovations
2019 AGRO Award for Innovation in Chemistry of Agriculture
History, Status and Future Potential of Natural Products for Pest Management and Plant Health
April 15, 2020, 12 PM to 1 PM Eastern US Time

Eliza Dunn, M.D.
Bayer
The Role of Pesticides to Protect Public Health and the Food Supply
May 5, 2020, 12 PM to 1 PM Eastern US Time

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Future ACS National Meetings

259th ACS National Meeting & Exposition
March 22-26, 2020, Philadelphia, Pennsylvania
Macromolecular Chemistry: The Second Century

260th ACS National Meeting & Exposition
August 16-20, 2020, San Francisco, California
Moving Chemistry from Bench to Market

261st ACS National Meeting & Exposition
March 21-25, 2021, San Antonio, Texas
Bonding Through Chemistry

262nd ACS National Meeting & Exposition
August 22-26, 2021, Atlanta, Georgia
Resilience of Chemistry

263rd ACS National Meeting & Exposition
March 20-24, 2022, San Diego, California
Evolving Biomolecular Science

264th ACS National Meeting & Exposition
August 21-25, 2022, Chicago, Illinois
Sustainability in a Changing World

266th ACS National Meeting & Exposition
August 13-17, 2022, San Francisco, California
Theme TBD

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
- Some funding to help with travel and/or non-member registrations

7 EASY STEPS FOR ORGANIZING A SYMPOSIUM

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

July 26 - 29, 2020

Marriott Harbor Beach Resort

Fort Lauderdale, Florida USA

JOIN US!

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

Submission Deadlines:
Oral presentations: March 31; Poster presentations: April 21
NACRW Student Scholarships: April 21

Manuscripts related to the meeting may be considered for publication
in a special section of *Journal of Agricultural and Food Chemistry*

www.nacrw.org

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

Pacifichem 2020

The 2020 International Chemical Congress of Pacific Basin Societies

Honolulu, Hawai'i, USA
December 15 - 20, 2020

A CREATIVE VISION FOR THE FUTURE

Chemistry is, and always should be, a creative enterprise, providing us with unique and unprecedented innovations to make human society happier, healthier and more sustainable. In addition to being a discovery science, chemistry allows us, through limitless combinations and permutations of the over 100 elements, to create new substances and materials that nature has not yet seen in the 13.5 billion-year history of our universe and to employ them in the betterment of our Earth.

Pacifichem 2020 will create an active forum and a productive platform where thousands of papers in more than 250 symposia will disclose state-of-the-art, cutting edge findings in chemistry and related multidisciplinary areas that inspire active discussion and opportunities for international collaboration, thereby promoting creativity and a clear creative vision for chemistry.

CORE CHEMISTRY: A focus on the core areas of chemistry has been maintained in all previous Pacifichem Congresses. For Pacifichem 2020, these Core Chemistry areas will include:

Analytical; Organic; Inorganic; Physical, Computational and Theoretical; Macromolecular and Biological Chemistry; Materials Science; Nanotechnology; Chemical Education and Communication; and Chemical, Biological, and Biomedical Engineering

CHEMISTRY FOR GLOBAL CHALLENGES: This subtheme emphasizes the important mission of chemistry: a science that contributes to the human society and helps to create a better world for the future. The Global Challenges topic areas for Pacifichem 2020 will provide symposia and forums for new, emerging, futuristic, and/or multidisciplinary areas in:

Chemistry for Sustainability; Chemistry of Energy; Chemistry of Health Care; and Artificial Intelligence, Big Data and Beyond

AGRO is Leading 11 Symposia at Pacifichem 2020

Analytical

- Recent Developments in the Analysis of Pesticide Residues in Foods: Advances and Challenges

Chemistry for Sustainability

- Agricultural Sustainability: The Critical Links between Chemistry, Exposure Assessment, Risk Assessment, and Regulations
- Chemistry and the Rice Field Ecosystem
- Deciphering Chemical Signals and Omics for Sustainable Pest Management
- Developments in Pesticide Ecological Risk Assessment Approaches in the Pacific Rim
- Emerging Technologies and Advances in Measuring and Assessing the Environmental Fate of Pesticides and Other Agrochemicals
- New Formulations and Application Technologies of Pesticides in Sustainable Plant Protection: From Theory to Practice
- Pesticide Residues in Food: Advancing Global Standards that Facilitate Trade and Ensure Consumer Safety
- Proteomics and Metabolomics in Agricultural, Environmental, and Public Health Sciences
- Rodenticide Environmental Fate and Nontarget Effects
- Toward the Chemistry of Plant Growth Regulators

SUBMIT ABSTRACTS

https://pacifichem.org/technical-program/abstract-submission/
January 1 – April 1, 2020

- Before submitting an abstract, ***Create an Account*** on the 2020 Pacifichem Abstracts System. https://pacifichem2020.abstractcentral.com
- Abstracts must be submitted to one of the approved symposia listed on the website. Note the symposium's Topic Area, Title, and Symposium ID #.
- Abstracts are limited to 2,000 characters (~ 250 words).
- Symposia in the technical program will accept both Oral and Poster type abstracts.
- Abstracts are officially submitted on the last step of the abstract submission process. Abstracts left as a Draft or incomplete will not be considered or reviewed.
- All abstract submissions will be reviewed for acceptance by the symposium organizers.

Analytical

- **Recent Developments in the Analysis of Pesticide Residues in Foods: Advances and Challenges (#23)**

Organizers

Yelena Sapozhnikova (yelana.sapozhnikova@usda.gov), Lijun Han, Machiko Saka

Summary

Ever increasing global food trade places greater demands on the quality of traded food commodities. Numerous analytical laboratories operate around the world to test food for pesticides and to ensure it meets food safety regulatory standards. Tolerances, or maximum residue limits (MRLs), for pesticides are established and harmonized between countries to comply with international food safety regulations. Efficient, high throughput, accurate, and sensitive methods for analysis of hundreds of pesticide residues are needed to provide fast turnaround time while keeping testing cost reasonably low.

This symposium will bring together analytical chemists to share new developments, advances, and challenges in the analysis of pesticide residues in complex food samples. Recent developments in residual analysis of pesticides, including sample processing, sample preparation, instrumental analysis, data processing, and reporting will be the focus.

Chemistry for Sustainability

- **Agricultural Sustainability: The Critical Links between Chemistry, Exposure Assessment, Risk Assessment, and Regulations (#151)**,

Organizers

Jeanette Van Emon (jmvanemon@gmail.com), Amanda Wheeler, Sungroul Kim, Peng Wang

Summary

Sustainability in agriculture relies in part on regulated pesticide use which, in turn, requires a scientific understanding of the complex relationships between pesticide use, human exposures, and associated health outcomes. There is an increasing international interest in using an integrated approach of environmental measurements, human exposure data, and results from epidemiology research to understand the potential for human health risks associated with crop protection products. At the same time, the uncertainties in analytical data, variability in data quality, incongruent objectives and study designs, as well as a lack of transparency in reporting (on both methodological study components and results), all adversely impact our ability to use the collective information as the basis for public health decisions. Thus, guidance and approaches for assessing data and study quality (including data related to analytical measurements, exposure assessments, and health outcomes) are being developed internationally, principally in the United States and Europe.

However, the Pacific Rim countries also have a major role to play in both the development and use of these approaches. This symposium will describe the state of the science in disciplines of chemistry, exposure assessment, biological mechanisms, and epidemiology that play a role in these various guidance documents. Critical gaps in the science that hinder our ability to sustainably use crop protection products will be examined. The unique aspects of pesticide use and regulation in Pacific Rim countries, as well as data needs specific to the region, will be discussed.

- **Chemistry and the Rice Field Ecosystem (#138)**

Organizers

Kevin Armbrust (armbrust@lsu.edu), George Cobb, Hirozumi Watanabe, Na Zheng, Aixin Hou

Summary

The rice field environment offers a unique system to investigate the behavior of chemicals in aquatic ecosystems as well as to investigate the chemical and biological processes occurring within these systems. Rice constitutes a staple food source for a large portion of the global population and the chemistry of these systems will impact chemical behavior of pesticides used to enhance production as well as contaminants such as arsenic and other metals that can potentially enter into and accumulate in grains. Regional and geographic differences in soil and water chemistry combined with differences in management practices will dramatically impact a chemical's partitioning between air, water, sediment and biota as well as its degradation within each of these phases. These differences can also impact carbon sequestration within the paddy ecosystem.

This symposium will cover the unique chemistry of this system and its impacts on chemicals used in it or coming from it. Specific topics of interest will include 1) water, sediment, and biological environmental chemistry of the rice ecosystem, 2) rhizosphere dynamics and influences on chemical speciation, degradation, and uptake including chemical contaminant accumulation in grains, 3) pesticide degradation and fate in rice paddies, and 4) regional and geographic differences and challenges impacting chemicals used in rice culture and management including regulatory challenges, weed control, rice disease, and insect pressures.

- **Deciphering Chemical Signals and Omics for Sustainable Pest Management (#130)**

Organizers

Charles Cantrell (charles.cantrell@usda.gov), Kazuhiko Matsuda, Leslie Weston, Hiroshi Nakano

Summary

This symposium will be focused on the development of natural products and omics-based technologies for sustainable pest management in natural settings, crops, pastures, livestock, and human systems. Featured speakers will present examples of possible commercial importance for pest management and innovative approaches to the study of pest management using natural products as the basis for pest control or for future commercialization of sustainable pesticides.

- **Developments in Pesticide Ecological Risk Assessment Approaches in the Pacific Rim (#144)**

Organizers

Amy Ritter (rittera@waterborne-env.com), Wenlin Chen (wenlin.chen@syngenta.com), Xingang Liu, Patrick Havens, Keith Solomon, Heather Simmons

Summary

Sustainable agricultural production is critically dependent on the availability of modern crop protection technologies including pesticide and other agrochemicals. Over the past decade or so, rapid growth in agricultural outputs has substantially boosted pesticide use in the Pacific Rim, especially in the Asian Pacific countries/regions of emerging economy. However, increased pesticide application has also raised concerns over potential ecological impact which has lead to rapid developments in country-specific regulatory policies and ecological risk assessment (ERA) approaches to aid management decision

making. With the richest biodiversity and most diverse cultural practices in the region, ecological risk assessment methodologies and modeling tools must be developed to reflect the local real-life conditions in each specific region/country.

A core package of assessment data that is universally considered scientifically valid or was obtained under similar environmental conditions in various parts of the world needs to be identified and shared to reduce redundancy and increase efficiency of often scarce technical and regulatory resources. However, it is also imperative that the principle of risk-based assessments be consistently applied in the process of risk characterization and decision making.

This symposium will provide a forum for knowledge exchange and scientific dialogue among regulatory authorities, industry, and academia to enhance understanding of the current ecological risk assessment developments in the region. Symposium discussions are expected to stimulate development of risk-based assessment paradigms that are locally fit, globally collaborated, and applied consistently in the process of risk characterization and decision making.

Suggested topics:

- Overview of ecological risk assessment methodologies and use of ERA in the regulatory process in the Pacific Rim
- Exposure characterization: tiered system, modeling tools and standard exposure scenario development, uncertainty analysis
- Effect characterization: endpoint determination, reference species relevant to local/regional ecosystems, bioavailability for endpoint refinement, uncertainty factors
- Methods for risk characterization: risk quotient versus probability
- Use of laboratory studies and field data: standard/guideline studies versus special/higher tier studies, use of field data to inform/validate models, Crosswalk - using data for similar environmental conditions in different countries. What data can or cannot be shared with different geography?
- Assessment of metabolites
- Mitigation and risk management
- Using weight-of-evidence to characterize studies in support of regulation of pesticides

- **Emerging Technologies and Advances in Measuring and Assessing the Environmental Fate of Pesticides and Other Agrochemicals (#146)**

Organizers

Mingming Ma (mingming.ma@corteva.com), Amy Ritter (rittera@waterborne-env.com), Xiaoxia Lu, Xiangwei Wu, Jinxia Liu, Kim Jeong-han

Summary

The presence of pesticides and other agrochemicals in the environment is a concern due to their potential adverse effects on the ecosystem and general public health. Understanding the environmental fate of these contaminants helps to establish sound science-based regulations and to develop effective management practices. After application, pesticides and other agrochemicals may become airborne, permeate the soil, enter bodies of water, or be taken up by plants and animals, depending on the physical and chemical properties of the agrochemicals and environmental conditions. Pesticides may also be broken down or transferred to other matrices by further processes. Characterization of the environmental fate is challenging because of the complex interactions between the agrochemicals and the environments.

This symposium will focus on emerging technologies and advances in measuring and assessing the environmental fate of pesticides and other agrochemicals. Potential topics include but are not limited to the following:

- New technologies and approaches for experimental measurements
- State-of-the-art characterization of environmental fate;
- Novel methods to predict and quantify environmental fate processes
- Approaches to bridge laboratory studies to field-observed behavior
- Bioavailability: measurement, quantification, adsorption, mechanisms of interactions of agrochemicals with soil particle
- Distribution, uptake, transport and metabolism of emerging agrochemicals

- **New Formulations and Application Technologies of Pesticides in Sustainable Plant Protection: From Theory to Practice (#143)**

Organizers

Pat Havens (pat.havens@corteva.com), Lidong Cao, Andrew Hewitt

Summary

In recent decades, the growth of agriculture in the Pacific Rim and the concurrent adoption of modern farming practices has led to an increased use of crop protection technologies, including chemical pesticides and other agrochemicals. With this increase in pesticide use, there is a heightened potential for off-target movement and unintended ecological or human health effects. To mitigate this concern, the development of new formulations and application technologies continues to be a very active field of research.

Researchers and agrochemical producers are actively designing formulations with improved features that allow optimized delivery of the product to the target pest while minimizing undesirable off-target effects, including controlled release technologies, improved environmental behavior, and the use of environmentally-friendly, micro- to nano-scale materials. Significant advances in application technology, adjuvant chemistry, and application practices have also increased the effectiveness and sustainability of agrochemical applications.

This symposium seeks to enhance the knowledge exchange in this active research area between industry, government, and academia. Suggested topics include, but are not limited to:

- Enhanced formulation technologies to optimize biological activity while minimizing undesirable ecological or human impacts
- Development and testing of innovative formulation technologies such as controlled-release systems, micro to nano-scale materials and novel emulsion chemistry.
- Development of application equipment and techniques to reduce off-target transport of pesticides, including techniques to measure and model off-site movement
- Adoption and integration of off-target movement mitigation at regulatory to end-user levels, including product stewardship and education

- **Pesticide Residues in Food: Advancing Global Standards that Facilitate Trade and Ensure Consumer Safety (#126)**

Organizers

Jason Sandahl (jason.sandahl@usda.gov), John Johnston (john.johnston@usda.gov), Ken Racke (ken.racke@corteva.com), Jason Lutze, Canping Pan, Fengshou Dong

Summary

Trace residues of pesticides and/or their metabolites may be present on crops and processed foods as a result of pest management practices. Pesticide maximum residue levels (MRLs) are established to ensure that pesticide products are used according to the legal specifications of a product label, and establishing the MRL balances an effective application rate with consumer protection. Because pest pressures, climate, consumption patterns, environmental concerns, etc. can differ between countries, different MRLs may be established. Also, MRLs may vary because of a lack of coordination between countries during the establishment of the MRLs (*e.g.*, relying on different field residue data or residue definitions).

Differential timing for regulatory reviews and establishment of MRLs in the various food exporting and importing countries can lead to country-to-country MRL gaps, especially for newly developed pesticides. While the reasons for MRL differences are many, the impacts of differing (or missing) MRLs can significantly impact international trade and generate consumer concerns. In the majority of cases where MRL mismatches between countries exist, there are no consumers or environmental concerns associated with the level of residues which may occur.

This symposium will explore how countries are attempting to preempt and resolve MRL-related issues and concerns through new, collaborative approaches in order to accelerate establishment of harmonized MRLs within regions and across the globe. It will also explore how domestic research and monitoring programs, both consumer and environment oriented, support standard setting and validate safety of adopted standards.

- **Proteomics and Metabolomics in Agricultural, Environmental, and Public Health Sciences (#131)**

Organizers

Qing Li (qingli@hawaii.edu), John Johnston (john.johnston@usda.gov), Sung-Eun Lee, Chunyi Zhang, Peng Wang

Summary

Proteomics and metabolomics are powerful tools in agricultural, ecological, and public health research. Proteomics and metabolomics provide key insights into the normal physiological state of a cell or organism and its response to adverse stimuli such as toxicants and disease. There are numerous challenges as well as opportunities in proteomic and metabolomic research for applications such as: 1) biomarker discoveries in response to stresses such as pathogens and pesticides, 2) food safety, 3) food authentication, 4) pesticide mode of action, 5) disease mechanisms, and 6) linking exposures to adverse outcome pathways.

This symposium will focus on applications of proteomics and metabolomics to such challenges in agrochemical and public health science. This symposium will address: 1) New advances in proteomics and metabolomics, 2) Protein barcoding and food authentication, 3) Proteomic or metabolomic indicators of environmental stress, 4) Proteomics, metabolomics and mechanisms of action of pesticides and bio-pesticides, 5) Proteomics and bioremediation, 6) Proteomic and/or metabolic based disease detection and therapies, and 7) Biomarker/bio-indicator discovery.

- **Rodenticide Environmental Fate and Nontarget Effects (#141)**

Organizers

Katie Swift (swiftk@liphatech.com), Niamh Quinn, Charles Eason, Hafidzi Bin Mohd Noor, Pierre Mineau

Summary

This symposium will take a multi-disciplinary approach to improve understanding of anticoagulant rodenticide residues in the environment and nontarget wildlife. Rodenticides are used worldwide to protect agriculture, human health, and native species from rodents. Their widespread use, bioaccumulative potential, and persistence have resulted in their being detected in terrestrial and aquatic wildlife, soil, and water. The implications of their prevalence are not understood, but many countries have nonetheless placed restrictions on their use, limiting their benefits to agriculture and human health. Little is known about the pathways by which rodenticides travel, and their effects on wildlife populations are not well characterized.

Presentations will be grouped into three half-day sessions focusing on 1) using detection and modelling to identify the pathways rodenticides travel through food webs and through non-biological matrices; 2) the laboratory analytical techniques used to detect and quantify rodenticides in a variety of matrices in the environment and in wildlife; and 3) identifying and characterizing the effects of rodenticides in wild populations and the physiological causal mechanisms of sublethal and reproductive effects. This session will include research that bridges laboratory toxicity studies to wild populations and the pharmacokinetics and metabolism of rodenticides.

- **Toward the Chemistry of Plant Growth Regulators (#136)**

Organizers

Yunde Zhao (y3zhaou@ucsd.edu), Tadao Asami, Dioxin Xie

Summary

Plant growth regulators control almost every aspect of plant growth and development. Understanding of the chemical mechanisms that govern the biosynthesis, metabolism, and signal transduction of plant growth regulators not only addresses fundamental plant biology questions, but also has great applications in agriculture. Development of chemical tools such as inhibitors and agonists of the growth regulators provides tools for scientists to dissect metabolic and signaling pathways. Much progress has been made in the field of plant growth regulators.

In this symposium, chemists, biochemists, and biologists will get together and share cutting-edge information related to biochemistry, molecular biology, and genetics of plant growth regulators. This meeting will stimulate interactions and mutual understanding among chemists, biologists, and agricultural biotechnologists.

IWSC 2020

The 8th International Weed Science Congress
"Weed Science In a Climate of Change"

Date : 21 - 26 June 2020
Venue : Bangkok Marriott Marquis Queen's Park

For more Information

Contact Information
Email: info@IWSC2020.com
www.iwsc2020.com

ACTIVITIES

- Pre-Congress Symposiums
- Weed Photo Contest
- Oral and Poster Presentations
- Congress Excursions

IWSC2020 Weed Photo Contest

REPRODUCTIVE STRUCTURES

VEGETATIVE PLANT / STRUCTURES

WEEDS IN THE LANDSCAPE

AWARDS

The winner prize is $500
The 1st runner-up prizes is $200
The 2nd runner-up prizes is $100

The overall winner will be selected from the three categories winners and receive an additional award of US$ 200.

MAIN TOPICS

Herbicide Resistance

Climate Aspects of Weed Science

Economic and Social Aspects of Weed Management

Physiology of Plants and Herbicide Interaction

Weed 'Omics'

Weed Biology and Ecology

Non-Chemical Weed Control

Invasive and Parasitic Plant Species

Weed Issues in Asia

Modelling

Integrated Weed Management

Application Technology

New Technology for Weed Management

Bioherbicides (including joint IWSS/IBG Session)

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KEY DATE (IWSC 2020)

ACTIVITIES	DATE
Registration	Now Open
Early Bird Registration Close	15 November 2019
Abstract Submission	Now Open
Abstract Submission Close	15 November 2019
Weed Photo Contest	Now Open
Weed Photo Contest Close	15 December 2019

AGRO Division Officers, Councilors, and Executive Committee

2019 AGRO Division Officers

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AGRO Division Past Chairs

1969	Donald G. Crosby
1970	Elvins Y. Spencer
1971	Wendell Phillips
1972	Philip C. Kearney
1973	Roger C. Blinn
1974	Charles H. Van 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 Ivie
1984	Robert M. Hollingworth
1985	John Harvey, Jr.
1986	Henry J. Dishburger
1987	James N. Seiber
1988	Paul A. Hedin
1989	Gustave K. Kohn
1990	Willa Garner
1991	Guy Paulson
1992	Joel Coats
1993	Larry Ballantine
1994	Nancy N. Ragsdale
1995	Don Baker
1996	Barry Cross
1997	Willis Wheeler
1998	Judd O. Nelson
1999	Richard Honeycutt
2000	Ann T. Lemley
2001	Jeffery Jenkins
2002	Terry D. Spittler
2003	Jeanette Van Emon
2004	Rodney Bennett
2005	Allan Felsot
2006	R. Donald Wauchope
2007	Laura L. McConnell
2008	John J. Johnston
2009	Kevin L. Armbrust
2010	Ellen L. Arthur
2011	Kenneth D. Racke
2012	Aldos C. Barefoot
2013	John M. Clark
2014	Stephen O. Duke
2015	Cathleen J. Hapeman
2016	Pamela J. Rice
2017	Jay Gan
2018	Scott Jackson
2019	Julie Eble

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 and Election 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.

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

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MEMBERS: Emily Saad, Katoria Tatum Gibbs

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Finance Committee

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dkoch@agrodiv.org
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International Activities Committee

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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

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Stephen Duke, 662-915-7882, sduke@olemiss.com
Paul Reibach, 508-317-0108, phrfect@aol.com
Andy Newcombe, 302-584-5999, andy.newcombe@arcadis.com

Membership Committee

Chris Bianca, Chair, 484-804-6962, chris.bianca@jrfamerica.com
MEMBERS: Steven Lehotay, Leah Riter, Daniel Swale

Nominating and Election Committee for 2020

Julie Eble, Chair, 484-431-6978, julie.eble@agrodiv.org
Scott Jackson, 919-746-9223, sjackson@vestaron.com
Jay Gan, 951-827-2712, jgan@ucr.edu

Programming Committee (see p. 64)

Qing Li, Chair, 808-956-2011, qingl@hawaii.edu

Webinar SubCommittee

MEMBERS:
John Clark, 413-545-1052, jclark@vasci.umass.edu
Stephen Duke, 662-915-7882, sduke@olemiss.com
Laura McConnell, 636-737-4787, laura.mcconnell@bayer.com
Paul Reibach, 508-317-0108, phrfect@aol.com
Prasesh Sharma, 317-337-7045, prasesh.sharma@corteva.com

50th Celebration Gala Committee

Ken Racke, Co-Chair, ken.racke@corteva.com
Jeanette Van Emon, Co-Chair jmvanemon@gmail.com

Strategic Planning Committee

To be reconstituted in 2020/2021

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: Stephen 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 U.S., 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: Dena 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: Steven Lehotay, Ashli Brown Johnson, Michelle Hladik

GOAL 3: ***Provide strategic, multi-year programming that advances the AGRO mission.***
Impact: High; Resources: Med-high

3-1. Design and launch a program committee by the end of Q2 2017 to implement a plan for the 2018 national meeting that develops a multiyear programming approach that maintains the AGRO division culture and includes webinars and electronic options for both national and regional meetings.
Impact, H; Resources, L
Champions: Julie Eble, John Clark, Jay Gan

3-2. Update symposia topic list to evaluate past programming performance in order to aid program design committee in planning future meetings by the end of March 2017.
Impact, M; Resources, L
Champions: Peney Patton, Mike Krolski

3-3. By end of 2017, partner with two other organizations, divisions, or societies to bring in Hot Topics and educational (*e.g.*, workshops, short courses) programming to increase membership (additional cosponsors in future years). Coordinate with G1S2.
Impact, H; Resources, variable
Champions: Aaron Gross, Amy Ritter, Kalumbu Malekani

AGRO Division Combined Governance Meeting

August 25, 2019

5:00 PM – 9:00 PM PDT

Division Combined Governance Meeting

San Diego Convention Center Room 30A

Sharon Papiernik, Secretary

Amy Ritter, Meeting Scribe

ATTENDANCE

Officers: Julie Eble, Chair; Cheryl Cleveland, Program Chair; Leah Riter, Vice-Chair; Del Koch, Treasurer; Rodney Bennett, Jeanette Van Emon, Councilors; Kevin Armbrust, Alternate Councilor

Executive Committee Members (EC): Aaron Gross, Heidi Irrig, Mike Kroloski, Qing Li, Kalumbu Malekani, Paul Reibach, Caitlin Rering, Amy Ritter, Sara Whiting, Carmen Tui

Committee Chairs and Members: Joel Coats, James Foster, Cathleen Hapeman, Marja Koivunen, Jim Seiber

Guests: Mariela Paz Carpio-Oluso, José Carvalho, Caleb Corona, Maura Hall, Pat Havens, John Johnston, Sasha Kweski, Mingming Ma, Laura McConnell, Edmund Norris, Peney Patton, Brittany Rauzan, Patricia Rice, Katoria Tatum-Gibbs, Ralph Warren, Adam CN Wong, Colin Wong

1. **Introductions and Welcome** – *Julie Eble*
2. **Roll Call** – *Amy Ritter*
3. **Kansas City Section** – *Sarah Leibowitz*
   Leibowitz was seeking feedback on the Kenneth A. Spencer Award. The award alternates yearly between AGRO and AGFD divisions. Next year the award will be given to a candidate in the AGFD division, so only candidates in AGFD will be accepted. This was acceptable to AGRO.
4. **Program Chair** – *Cheryl Cleveland*
   a. San Diego Programming: Only the AGRO division was in theater style this year. The breaks were synchronized. There were 21 oral presentations withdrawn, and we need to keep the noise down when a session is on an irregular break. There are 5 full tracks from Sunday throughThursday, 54 sessions with 4 award symposia.
   b. Two learnings from Program Chair Progress:
      1) ENVR collects a two-sentence description from co-organizers during the Call of Papers process. AGRO may want to do that. This would expedite the process of filling out the required ACS spreadsheet.
      2) To avoid holes in the final program due to last minute withdrawals, AGRO encourages broader sets of co-chairs and co-authors during the Spring abstracts and Session planning in case people cannot make it to the conference.
   c. In late June, ACS requested that students do ePosters in addition to printed posters. ACS did not get any responses from AGRO students.
5. **Programming Committee Chair: San Francisco and Beyond** – *Leah Riter*
   a. The overall theme for the San Francisco meeting is *Chemistry from Bench to Market* which aligns well with many of the innovations in the AGRO community. Among the interesting interpretations of this theme include symposia on novel technologies for discovery and development of agrochemicals and meeting societal demands for green agriculture. We look forward to the input of Qing Li's Strategic Programming Committee to suggest topics for San Diego and beyond. The theme for 2021 is resiliency of chemistry and 2022 is sustainability.
   b. The AGRO program in San Diego will also have influences from our 50th anniversary celebration. There will likely be a dedicated symposium on the 50th anniversary celebration, but symposium organizers are encouraged to incorporate an historical perspective talk poster in their technical sessions.
6. **Elections** – *Julie Eble for Scott Jackson*
   Election results:
   Officers
   Leah Riter – AGRO Division Vice-Chair 2019
   Qing X. Li – AGRO Division Vice-Chair 2020
   Del Koch – Treasurer
   Sharon Papiernik – Secretary
   Executive Committee Members Term 2018-2020
   Amy Ritter (Replacing Leah Riter)
   Executive Committee Members Term 2020-2022
   James Foster, Kalumbu Malekani, Mingming Ma, Ralph Warren, Pat Havens
7. **Thank You for Your Service** – *Julie Eble*
   Past-Chair: Scott Jackson
   Executive Committee members whose terms expire in 2019: Michelle Hladik, Qing Li, Kalumbu Malekani, Paul Reibach, Amy Ritter.

VOLUNTEER OPPORTUNITIES

8. **Alternate Councilor** – *Julie Eble*
   Steve Duke is retiring and has resigned as Alternate Councilor; a replacement is needed. The Chair asked for volunteers.
   Post-meeting update: Brittany Rauzan of Corteva Agrisciences volunteered to be considered as Alternate Councilor. Her CV was circulated, and the Executive Committee voted electronically to elect Dr. Rauzan. She will serve from September 17, 2019 to December 31, 2020.
9. **Membership Committee Report** – *Leah Riter*
   a. MOTION: Chris Bianca to replace Leah Riter as membership chair. Passed. Leah Riter to remain as member.
   b. ***Membership committee is looking for new members*** interested in active contributions to AGRO strategic goal #2 (membership).
      ACTION: If interested, please contact Chris Bianca (chris.bianca@jrfamerica.com)
      Post meeting update: Cheryl Cleveland supplied Chris Bianca with copy of ~20 new AGRO Division members who signed up at the AGRO table in San Diego.
10. **Liaison Committee** – *Julie Eble*
    Replacement is needed for Paul Reibach who is retiring.
    ACTION: Contact Chair to volunteer.
    Post-meeting update: Julie Eble contacted Kalumbu Malekani and Sasha Kweskin to co-chair.

11. Assistant Treasurer – *Julie Eble*

By electronic vote in December 2018, the Executive Committee created the position of Assistant Treasurer with duties to:

a. Review/assist with the ACS Financial Report and IRS filings
b. Assist in interpretation of our investment reports
c. Act as an authorized signer of checks for the AGRO checking account
d. Other duties as requested

The Assistant Treasurer is a volunteer position, not an elected officer.

Post meeting update: Bernalyn McGaughey volunteered to serve as Assistant Treasurer beginning in late 2019.

12. Lunch and Learn Webinar Series – *Laura McConnell*

The Lunch and Learn webinar series needs more people to help with that committee.

13. Early Career Scientist Committee Volunteers – *Marja Koivunen*

Diana Aga asked for a replacement as co-chair. Aaron Gross volunteered to take Aga's place. Marja Koivunen will stay on the committee one more year to help with the transition. Koivunen will step down in 2020, so AGRO will be seeking a volunteer as co-chair with Gross.

ACTION: Contact chair if you wish to serve on this committee.

Post-meeting update: Nur Tabanca has agreed to join as a new member.

COMMITTEE REPORTS AND FUNDING ISSUES

14. Membership Committee Report – *Leah Riter*

a. Strategic Plan GOAL 2: Attract and retain an increasingly diverse and engaged membership by creating tangible benefits and opportunities to advance the AGRO mission.
   2-1 Clearly define and communicate membership and participation benefits via creating an AGRO poster, presentation, and advertisement.
   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.
   2-3 The membership committee will create an incentive and recognition program and communication strategy to promote engagement by new and current AGRO volunteers.
b. Statistics of membership (see next table). Membership is roughly the same as the pre-IUPAC membership. Forms to become an AGRO member are available at the AGRO table. People can also go to the website and join the technical division.

Statistics of AGRO membership

	Jun 2014	Aug 2015	Oct 2016	Aug 2018	May 2019	Change 2018 to 2019	Change 2014 to 2019
Africa	11	19	7	9	9	0	**- 2**
Asia	57	270	105	62	63	1	**6**
Europe	57	258	103	67	65	-2	**8**
Latin America	15	62	11	9	7	-2	**- 8**
North America	1066	1383	1127	1065	1050	-15	**- 16**
Oceania	10	31	14	9	6	-3	**- 4**
N/A	0	0	0	0	8	8	**8**
TOTAL	**1216**	**2023**	**1367**	**1221**	**1208**	**-13**	**- 8**

15. Strategic Planning Proposal – *Julie Eble*

Sunset overarching effort

Goal 1. Outreach: Established Liaison Committee as a stand-alone

Goal 2. Membership: Committee exists

Goal 3. Programming: Long-term Programming Committee exists

Approved by show of hands.

16. Treasurer's Report – *Del Koch*

a. Report was shown and is available upon request. Email Del Koch, dkoch@agrodiv.org, if you have questions.
b. There was a decrease in sponsors this year, so the student awards were not totally covered by sponsorships.
c. Julie Eble recommended that committee chairs try to streamline, reduce expenses, and think about other sources of income to support their committee's activities.

17. Finance Committee Report – *Joel Coats*

a. The AGRO finances are still solid, with the Educational Trust Fund having a balance of $405,000: $313,000 (77%) in the Equity account (stocks) and $92,000 (23%) in the Cash & Fixed Income (money markets and bonds). The Equity fund is a growth account, while the Cash & Fixed Income portion is a more conservative, stable account. J.P. Morgan manages the whole Educational Trust Fund for AGRO.
b. T. Rowe Price manages AGRO's Spectrum Income Fund. The balance in that account was $191,000 at the end of July this year. The total in the two major investments is thus now around $596,000.
c. Recently, AGRO Chair, Julie Eble, asked the Finance Committee to recall and to discuss how broadly the educational mission of the AGRO Division has been defined with regard to the use of the Educational Trust Fund. Several members remember that it was AGRO's intent to provide graduate student travel grants, but also support an occasional "star" speaker (though not for general programming costs) or for public outreach (K-12 school events, for example). The Finance Committee agreed that the original intent was for education broadly.
d. Discussion: AGRO drew on the Education fund when we had a deficit (funding ourselves in a broad sense). John Johnston encouraged the Division to use money

to cover costs for students to attend ACS. It is very expensive for students to attend. Further discussed was referred to a sub-committee to review of use of funds. The chair asked for volunteers for the sub-committee of Mike Krolski, Aaron Gross, and Bernalyn McGaughey (not present but her name was suggested), along with Joel Coats and the rest of the Finance committee. The sub-committee is to look at historical trends, savings, and financial status and propose a procedure for using AGRO Education Trust funds. Note: No lead person for the sub-committee was specified, other than the Finance Committee in general.

18. **AGRO's 50th Anniversary Celebration Planning Committee Report** – *Cheryl Cleveland and Jeanette Van Emon*

a. A new 50th AGRO pin was distributed to Executive Committee members and members of the 50th Anniversary Committee. Pin will be available to members and others at the meeting in San Francisco.
b. Jeanette Von Emon and Ken Racke will take the lead in 2020. The gala will be a free ticketed event for AGRO only.
c. The handout on the proposal was distributed that describes the background, objective, proposed program to include a technical symposium capped by a gala reception, agenda, venue, budget, sponsorships, and other information.
d. There was a short discussion about the day of the event – the sub-committee realizes that they'll need to work out the details. They are meeting Monday night, August 26. There will be a timeline that could be electronic or on paper, perhaps with stickers that participants could add to the timeline with predictions regarding agriculture in the future.

MOTION: Approval of concept of gala reception and neutral budget (not a loss). Passed.

Update from Monday night meeting: Theme for the anniversary celebration is: To Celebrate our Past, Honor the Present, and Look to the Future

19. **IPGs (Innovative Project Grants)** – *Heidi Irrig*
    a. Heidi Irrig submitted a $7500 IPG Touring Crop Protection Advances and Sustainability; Pat Rice mentioned that CTIC may be a good to partner for the tour.
    b. *50th Anniversary IPG to be submitted by Jeanette Van* Emon

20. **International Activities Committee Report** – *Laura McConnell/John Johnston for Ken Racke*

a. **7th Latin American Pesticide Residue Workshop,** www.laprw2019.com.br/
- Was held 5-8 May 2019 in Iguazu Falls, Brazil. Attended by 360 participants from 32 countries, with 38 lectures and 143 posters presented. Steve Lehotay attended and orchestrated AGRO participation; see report in *PICOGRAM*.
- AGRO sponsored two poster awards of $500 each, which were presented to Yago de Souza Guida of Brazil and Ivan Mauricio Huefano Barco of Colombia. Yago has been invited to present his work as part of a future AGRO webinar.
- AGRO plans to sponsor poster awards at the 8th LAPRW, to be in Panama during May 2021.

b. **14th IUPAC International Congress of Crop Protection Chemistry,** www.iupac2019.be
- Organized by the University of Ghent during 19-24 May 2019 in Ghent, Belgium. Attended by 1572 participants from 80 countries, with 300 lectures and >700 posters presented. Laura McConnell and Ken Racke of AGRO were members of the Advisory Committee, and several AGRO members served as Scientific Program Committee members or topic organizers.
- As a sponsor, AGRO organized an exhibit booth to promote ACS and Divisional programs. Through booth giveaways many were introduced to the work of ACS and AGRO, and there was great interest in the ACS symposium series books displayed.
- 15th IUPAC Congress planned for New Delhi India during Jan-2023 (www.iupac2023.com).

c. **Pacifichem 2020,** https://pacifichem.org
- Organized by the Pacific Basin Societies during 15-20 December 2020 in Honolulu, HI. AGRO EC agreed earlier to make this conference the major AGRO Pacific region collaboration activity. John Johnston and Ken Racke are serving as AGRO focal points for participation plans.
- Based on stimulation among AGRO members and those of sister societies (e.g., PSSJ), a total of 11 AGRO-related symposium proposals representing half-day 25 sessions were accepted out of 14 submitted. An AGRO welcome/display booth and an AGRO social event are being planned to facilitate AGRO member networking and increase the international outreach of the Division. The AGRO social event is envisioned to be associated with some type of special programming such as a debate panel or invited lecture on a hot topic. Anticipate ACS reimbursement and sponsorship funds to offset most expenses.
- John Johnston presented more information about the Pacifichem meeting, including a draft budget and proposed that AGRO:

  1) Approve sponsorship of 11 AGRO-stimulated symposia, including AGRO leads, symposia organizers, and speaker support as well as coffee.
  2) Approve organization of AGRO science/networking event.
  3) Allocate a minimum initial budget outlay of $62,250, with expectation of significant reimbursement from Pacifichem/ACS to that net cost to AGRO will be <$20,000.

  Discussion: Proposal for action to support the proposed budget for Pacifichem. John Johnston expects that AGRO will be reimbursed 100% for most items but projected 90% to be conservative. It may take 1 year to get reimbursed. May be able to get additional grants from ACS. The ACS used to have "credits" for regional or international meetings, but those are no longer available.

  MOTION: Fund Pacifichem at a maximum of $65,000 with minimizing cost as much as possible. Passed. Note that expect to be reimbursed for costs but may need to pull from non-educational fund for upfront cost.

21. **Development (Public Relations) Committee Report** – *Carmen Tiu (includes James Foster and Laura McConnell)*
    a. Presented Excel spreadsheet of sponsors. Not as much money as usual (total $33,300). Total sponsorships in 2018 were $58,894, in 2017 $52,465, and in 2016 $36,500. The committee will send the sponsorship letters earlier next year.
    ACTION: The committee requests a volunteer fourth committee member. The sponsor website is automated on the sponsor end.
    Post-meeting update: Ralph Warren agreed to be part of the Committee. James Foster of the Committee indicated that a special sponsorship letter for the 50th anniversary gala could be coordinated with the Committee. The sponsorship letter is currently under draft by Laura McConnell.
22. **ACS Books** – *Julie Eble/Amanda Koenig*
    a. Notable news – AGRO chapters have been downloaded more than 20,000 times during January – June 2019.
    b. Upcoming project: *AGRO Highlights from the 256th ACS National Meeting.* Edited by Kari Lynn, Mingming Ma, Qiang Yang and Qi Yao. Estimated publication date December 2019.
    c. eBooks published in 2019 and available online*:*
    Pesticides in Surface Water: Monitoring, Modeling, Mitigation, Risk Assessment, & Regulation. Edited by Kean S. Goh, Jay Gan, Dirk F. Young, and Yuzhou Luo. Published online March 2019.
    Current Challenges and Advancements in Residue Analytical Methods. Edited by Elisabeth A. Schoenau, Tao Geng, Ryan Hill, Norma L. Houston, Manasi Saha, and Xiao Zhou. Published online March 2019.
    d. Print books published in 2019:
    Roles of Natural Products for Biorational Pesticides in Agriculture. Edited by John J. Beck, Caitlin C Rering, and Stephen O. Duke. Published Online August 2018. Printed August 2019, $150
    Managing and Analyzing Pesticide Use Data for Pest Management, Environmental Monitoring, Public Health, and Public Policy. Edited by Minghua Zhang, Scott Jackson, Mark A. Robertson, and Michael R. Zeiss. Published Online July 2018. Printed May 2019, $95.
    Advances in the Biorational Control of Medical and Veterinary Pests. Edited by Edmund J. Norris, Joel R. Coats, Aaron D. Gross, and John M. Clark. Published Online September 2018. Printed July 2019, $150.
    e. AGRO Division Sponsorship Revenue – Five-year history of AGRO revenue from books: $3306 in 2015; $1629 in 2016; $821 in 2017; $927 in 2018; estimated $3400 in 2019. Rodney Bennett said that ACS will not allow our division to sell books because they want to sell them themselves. We used to receive royalties, now they switched to honoria. Royalties only from previous books from previous years. Laura McConnell suggested that we put books on our website.
    f. For questions or comments, please contact Amanda Koenig, *a_koenig@acs.org*
23. **VIP event overview** – *Cheryl Cleveland for Andy Newcombe*
    Andy Newcombe was the lead in concert with Cheryl Cleveland, based on her materials from last year; Brittany Rauzan assisted with the 2019 program handout. This year, 11 tables were sold, down from 15 last year. The event is on Tuesday at 4:30 pm before the Blues and Brews. The 50th anniversary may have some tables like the VIP, but no separate VIP event will occur in 2020. Could bring VIP back in 2021.
24. **Other Funding Items – Julie Eble**
    a. MOTION → Cost-of-Living Increase for AGRO Technical Program Administrator (Peney Patton). Passed.
    b. MOTION → Funding level per ½ day symposium for San Francisco, $700. Passed.
25. **Councilor's Report** – *Jeanette Van Emon and Rod Bennett*
    See full report in the *PICOGRAM*.
    a. In San Diego, ACS had 9,594 accepted papers – 6997 oral, 2597 posters, 1088 ½ day sessions, 122 concurrent sessions, 1 room with 5 theaters (this is the AGRO Division).
    b. There are planned changes to the timelines for future meetings:
    - San Francisco 2020 – abstracts are due after the spring meeting (April 6, 2020). Sessions will be 8 am to noon and 1 pm to 5 pm (can be shorter but not longer). Each 4-hour ½-day session can include a target of 8 oral presentations. Preference in location and even programming are no longer required.
    - San Antonio Spring 2021. Tuesday poster/lunch/exhibit time mid-day with no competition with other technical programming.
    - Atlanta 2021 – No Thursday sessions. Times will be 7:30 am to 11:30 am and 1:30 pm to 5:30 pm. Tuesday will be poster/lunch/exhibits with no oral presentations at that time.

    c. ACS is considering options for virtual presenters (e.g. if visa is declined, unexpected medical issue); may need to show proof on case-by-case basis.
    d. A sub-committee is tasked with looking into future changes/enhancements to ACS meetings, including the exposition.
26. **Bylaws Committee Report** – *Rod Bennett*
    a. Proposal to change the bylaw to remove ability of committees to make changes. Preferential costing then add other areas. Reduce post-doc student fees.
    b. Proposal to bylaws takes 18 months to 2 years. Many functions moved to operational rather than bylaws.
    MOTION: Support moving operational information in bylaws to operational functions within ACS. Passed.
    c. Chem technicians and research associates in university groups would like to tell how to benefit from ACS. Educational groups – mentors for younger chemists. Trying to make ACS more nimble – streamline and more current to today's society.
    d. Sexual harassment – 1-800 hotline during National meeting or you can tell Flint Lewis. Ask divisions to put something in code of conduct in division bylaws.
    MOTION → AGRO will adopt professional conduct provision as part of our SOPs. Passed.
27. **Communications Committee Report** – *Cathleen Hapeman*
    a. *PICOGRAM* editor – Cathleen Hapeman; Webmaster – Laura McConnell; Social media (twitter) – Leah Riter; eNewsletter – Yelena Sapozhnikova
    b. AGRO has made new pins, poster, and tablecloth with the new logo. The website re-design is active.
    c. Followers on the Division's Twitter account (@acsagrodiv) have increased again this year. If you are not already following, please follow us. Efforts have been made synchronize the social media platforms with

the newly redesigned webpage. Automation of this synchronization should improve our ability to communicate divisional news effectively.

d. If you want to post an article, event, or news item - contact the people listed above or submit through the website, and your question will be routed to the correct people.

e. Email to Yelena Sapozhnikova is an easy way to request content for the eNewsletter. Anyone interested in communications committee should contact Cathleen Hapeman, cathleen.hapeman@usda.gov.

28. Early Career Scientist (Education) – *Marja Koivunen*

a. This year, a total of twenty-two 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, nineteen applicants (15 posters, 4 oral presentations) were selected to receive the $845-travel award ($600 to help with the travel and accommodation costs plus $245 as a re-imbursement for conference registration cost). The amount of student travel funds awarded to 15 posters and 4 oral presentations this year totals $16,055.

b. The application process with the extended abstracts and letters of recommendation sent via email (posters@agrodiv.org) worked well. Unfortunately, not all students with an oral paper confirmed their eligibility beforehand as advised in the call for abstracts. This caused confusion and discrepancies in the final tally for oral and poster awardees. Since the travel award organizers do not have visibility to short abstracts in MAPS, the assumption is that all applicants have submitted their short abstracts as posters, unless otherwise indicated in the application cover letter and/or in the letter of recommendation by the advisor. As in previous years, students submitted their short abstract to a symposium closest to their field of interest; student presentations are included in ten different symposia this year. In 2019, the nineteen student awardees represent nine US academic institutions.

c. 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 in San Diego. The names of the 2019 student travel grant awardees are listed in *PICOGRAM* page 33 (see the attachment in the end of this document).

d. Posters are presented and judged during the AGRO poster session on Wednesday, August 28th between 11:30-2:00pm. Additionally, all student posters will be up at the Sci-Mix on Monday evening. As part of the Travel Award program, the 1st, 2nd and 3rd place poster competition winners will get additional cash prizes ($300, $200, $100).

e. Discussion: Suggestion to reword the form because itis confusing if the submission is oral or a poster; an electronic form was suggested.
ACTION: Cathleen Hapeman will work with the team to change the form to make this clearer.

29. **JAFC Update** – *Cathleen Hapeman/Qing Li for Thomas Hoffman*

a. Please say "yes" when asked to review a manuscript! It seems most difficult to find willing reviewers for synthesis and fate manuscripts.

b. **Don't plagiarize your own writing!!!**

c. The 2019 report: 7195 total submissions (up from 6207 in 2014), of which 1415 were accepted for a 20% acceptance rate (down from 24% in 2014). Article processing time averaged 78 days. The impact factor is currently 3.571 (up from 2.912 in 2014) and there were 109,141 total citations this year (up from 84,847 in 2014).

30. Awards Committee Report – *Joel Coats for Jim Seiber*

a. Standardizing award names: ACS International Award for Research in Agrochemicals; AGRO Award for Innovation in Chemistry of Agriculture (alternatives that have been used: Award for Innovation in Chemistry of Agriculture; AGRO Innovation in Chemistry of Agriculture Award); AGRO Division Fellow Award; AGRO Division New Investigator Award; AGRO Division Education Travel Award.

b. *PICOGRAM* lists the winners.

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

a. The Division had 2 teleconferences since our last face-to-face meeting in November and April. Minutes were distributed and published in the *PICOGRAM*.

b. The Secretary certified the division's officers for 2019 and assisted in preparing and submitting the annual administrative report.

c. 2019 AGRO achievements include the development and launch of a new website design for the Agrochemicals Division; implementation of the new VIP program; continued sponsorship of poster awards at the Latin American Pesticide Residue Workshop; and a strong AGRO presence at the IUPAC Crop Protection Congress in Ghent, Belgium. The division had 3 members elected as ACS Fellows. They and the winners of AGRO-sponsored awards are excellent ambassadors for the Agrochemicals Division.

d. Outstanding items of business include the revision of the AGRO Division bylaws, and election of an Alternate Councilor since Stephen Duke resigned that position.

e. The division is looking forward to celebrating our 50th anniversary next year. As will be discussed later in the meeting, this will present many opportunities to volunteer. The division is fortunate to have many committed and active members who keep AGRO vibrant and forward-looking.

32. Social Committee Report – *Julie Eble for Jeff Jenkins, Jessica Malin*

The Social Committee has not met for some time.
ACTION: Let Chair know if you want to be on the social committee or if you have ideas.
Post-meeting update: Decision was made by chair and past-chair that no Social committee is needed for this 2019 – 2020 cycle, in light of extensive activities of the 50th anniversary gala celebration committee.

33. National Leadership Conference

AGRO proposes to send Leah Riter and Qing Li.

34. Transfer of chair, recognition of outgoing chair

Julie Eble passed the gavel to Cheryl Cleveland.

AGRO Division Conference Call

November 15, 2019

1:00 PM – 3:00 PM CST

Sharon Papiernik, Secretary

ATTENDANCE

Officers: Julie Eble, Chair; Cheryl Cleveland, Program Chair; Leah Riter, Vice-Chair; Sharon Papiernik; Secretary, Del Koch, Treasurer; Rodney Bennett, Jeanette Van Emon, Councilors; Brittany Rauzen, Alternate Councilor

Executive Committee Members (EC): Aaron Gross, Heidi Irrig, Mike Kroloski, Qing Li, Kalumbu Malekani, Amy Ritter, Yelena Sapozhnikova, Daniel Swale, Carmen Tui, Sara Whiting, Tianbo Xu

Committee Chairs and Members: Joel Coats, James Foster, Cathleen Hapeman, Scott Jackson, Ken Racke, Jim Seiber

Guests: Pat Havens, Mingming Ma, Ralph Warren

1. **2020 Technical Program: Symposia and San Francisco Venue** – *Leah Riter*
   a. The program is shaping up nicely. The 46 calls for papers that were received and curated cover all typical areas in which AGRO programs. Van Emon communicated deadlines: MAPS is opening earlier than usual, Jan. 6 and abstract submission will stay open until April.
   b. Venue: Program organizers had a meeting with ACS team last week, including several AGRO officers and 50th anniversary team members. AGRO plans to have a theater-style venue as last two years. The Division provided ACS with feedback on positive aspects and challenges. Posters will be in the middle of the theater venue as in San Diego. A second ballroom will be located (hopefully) nearby to house awards and 50th anniversary symposium/gala on Wednesday. The 50th anniversary celebration will be one of the concurrent programs in the morning but will be the only AGRO programming on Wednesday afternoon; the afternoon session will feed right into the gala.
   c. Last year there was a desire expressed by ACS to do ePosters for students. They intend to try to get the process going sooner in 2020. The ePoster is basically an upload of the poster pdf.
      Discussion: Should there be symposia other than student sessions that should have ePosters displayed nearby? There may be capability to upload questions, comments, etc. to the presenter. This would be "in addition to," not "in place of" printed posters. There was a question about whether this permanently archived information (with data/results) constitute prior publication. Presenters have the option to have the ePoster displayed only during the session. More information is needed and is being sought.
   d. Calls for papers last year were delayed, as was publication of *PICOGRAM*, because of the federal government furlough. The calls for papers can be published on the internet before the publication of the *PICOGRAM*. This year, the calls will be submitted to the copy editor and published on the AGRO website first. The Communications Committee and the Program Chair are on track to have those on the website by the end of December.
   e. In past years, the Sterling B. Hendricks lecture has been over the lunch period, 11:35-12:45 on Tuesday. But ACS guidelines for 2020 say that there should not be programming between noon and 1 pm. Jeanette Van Emon will talk with the ACS liaison for meetings and exhibitions for clarification. We are not to have concurrent programming with the Sterling Hendricks lecture, so preference is to schedule it at 11:35-12:45. Suggestion by a Counselor to enter this as a special event with ACS.
2. **50th Anniversary Gala Planning Overview** – *Ken Racke and Jeanette Van Emon*
   a. Any asks from the Executive Committee?
   b. AGRO 50th Celebration Objective: Celebrate the 50th AGRO anniversary with members, retirees, and friends of the Division during the San Francisco ACS meeting. By highlighting the rich history, accomplishments, and contributors of 50 years of AGRO success we hope to both educate and inspire the next generation regarding Divisional activities & participation.
   c. Anyone who wants to help with the second IPG proposal should get in touch with Ken and Jeanette soon; deadline is February.
   d. Coordinating Team: Jeanette Van Emon (Co-chair), Ken Racke (Co-chair), Rod Bennett, Cheryl Cleveland, Julie Eble, Heidi Irrig, Qing Li, Laura McConnell, Andy Newcombe, Caitlin Rering, Leah Riter, Jim Seiber
   e. See adjacent table for additional information. In the table, VIP refers to Very Important Persons. In contrast, the AGRO VIP (Vendor Interface Program) will not be happening as it was the past 2 years. Tables will be sold to organizations as Gala tables for 2020. Will probably return to VIP tables in Atlanta. Andy Newcombe is lead contact for Gala tables.
3. **Communications Committee Report** – *Cathleen Hapeman*
   a. Many updates to the website. The committee has not handed off the website to the new developer for management because some things are being sorted out. Forms (for example the template for the call for papers) are working well.
   b. *PICOGRAM* deadlines are coming up. Cathleen Hapeman needs reports by December 15 (for sure by January 10).
4. **Lunch and Learn Webinars** – *Cathleen Hapeman for Laura McConnell*
   a. Webinars are going well, with 3 this year and plans for 2 so far next year. Let Laura McConnell know of speaker and idea topics.
   b. The committee is seeking a volunteer to lead organization of the Lunch and Learn Webinars, especially for next year.
5. **Development Committee Report** – *James Foster*

The sponsorship flyer and 50th anniversary information has been sent with requests for sponsorship to about 70 contacts. He needs updated communication information. So far, $16K in sponsorships have been received across multiple categories, including award sponsorships, Gala tables, student travel, unspecified. The flyer is for use by all AGRO members who can help with funding solicitation.

Activity	Champions	Status	Needs
Ag Tour and Educational Outreach	Heidi Irrig	Full day ag tour and educational outreach for Friday, Aug-21. IPG funding has been confirmed. Organizing team has been activated.	Assistance or suggestions for CA ag contacts and supporters.
Chemistry for Sustainable Agriculture and Public Health: AGRO Evolution and Future Opportunities Symposium	Jeanette Van Emon Jim Seiber Ken Racke Rod Bennett	Full day symposium highlighting key accomplishment and future needs by noteworthy AGRO and VIP speakers for Wednesday, Aug 19. Symposium 1-pager developed and draft list of topics and speakers in place.	Additional nominations for noteworthy speakers, including keynote lecturers.
Gala Celebration	Ken Racke Jeanette Van Emon Caitlin Rering	Reception to follow the symposium on Aug-19 to include VIP and AGRO awardee recognition, food & drink, photo booth, give-aways, slideshow of AGRO photos, historical timeline and table displays.	Suggestions for VIP listing of individuals and organizations to invite. Contributions of historical AGRO photos (once call is issued)
Historical Timeline	Cheryl Cleveland	Capture and display of key milestones related to the science of AGRO via the gala and web.	Nominations for events to include in timeline (once call is issued).
Funding and Sponsorship	Laura McConnell Andy Newcombe	Call for sponsors flyer has been developed and in process of initial distribution and posting. To include also invitation for non-traditional sponsors (ex-VIP). Second IPG to be submitted.	Sponsorships and ideas for additional sponsors.
Communica-tions and Program	Jeanette Van Emon Ken Racke	AGRO 50th promotional communications via website, email and *PICOGRAM*; gala/program booklet.	Will work with Communica-tions Committee.
Liaison with ACS	Jeanette Van Emon Rod Bennett Leah Riter	Coordination of AGRO 50th activities and needs with ACS leadership and operational staff in DACS and M&E. First planning conference call completed to get on radar screen.	Continued advocacy with ACS for attention and support.

6. **Liaison Committee Report** – *Kalumbu Malekani*
   No progress to report. Malekani and Sasha Kweskin need to get complete information from Steve Duke and Paul Reibach.
7. **Membership Committee Report** – *Cheryl Cleveland*
   Chris Bianca and Cheryl Cleveland were successful in recruiting new AGRO members by making a new form available at the ACS national meetings and following up with ACS the same day. Chris Bianca has some ideas for branding, membership analysis; he will report later.
8. **Early Career Scientist Symposium** – *Leah Riter*
   The Early Career symposium was initiated through an IPG that ran in 2015 and 2016. The Division has chosen to continue this program, but there is no rule in place for funding for the symposium.
   Questions:
   1. Are the funds that are provided for Early Career in addition to, or in place of, the standard allocation for AGRO symposia?
   2. What is the maximum budget for the Early Career symposium? The amount has varied. The IPG provided $7500, and since then, the Division has provided up to $3000 per symposium.

   MOTION: The Early Career Scientist Symposia Series will be set up to provide additional funds for symposia within the AGRO programming at the national meeting that is organized by and feature speakers that are early career scientists (within 10 years of the highest degree earned, or equivalent – including postdoctoral fellows, research assistants and new assistant professors). The symposia should be organized by early career scientists with mentorship, if possible, by an experienced scientist. Nearly all of the oral and poster presentations in the Early Career Scientist Symposia should be given by early career scientists. The AGRO Division will provide up to $7,500 per the Fall 2020 national meeting to support Early Career Scientist Symposia with a maximum funding per symposium of $3,000. These funds should be provided from the AGRO educational endowment fund. The funds provided to the Early Career Scientist Symposia are in lieu of the standard symposium support allotment provided by the AGRO Division. Motion passed.
   Additional Discussion: The Finance Committee believes this is a good and relevant use of the education endowment fund. However, there is concern about making this appropriation in perpetuity. At the August Combined Governance meeting, the Finance Committee was tasked with assembling a sub-committee to review use of the Education Trust funds. Joel Coats committed that the sub-committee will make a recommendation to ensure the long-term sustainability of the education fund; that recommendation will be delivered to Cheryl Cleveland by February 15.
9. **Awards Committee Report** – *Jim Seiber*
   a. There are currently no nominations for the Innovation Award. Qing Li is International Award winner for 2020, also taking nominations for International Award.
   b. Jim Seiber is wishing to step down as Awards Committee chair; Keith Wing is interested in taking over. Consensus is that Dr. Wing would be a good chair; Dr. Seiber will help Keith Wing transition
   c. Spencer Award for 2020 will go to AGFD; Sterling Hendricks Award will be toward AGRO. The Hendricks

committee is looking for folks who have furthered science in AGRO.

d. The agreement regarding the JAFC 2020 award was signed off by Cheryl Cleveland on behalf of AGRO this November.

10. **Any other business** - None.
11. **Post-meeting update**

Kavli Emerging Leader nominations

Are due December 15. The ideal candidate is a distinguished younger scientist who is highly regarded by his or her peers for significant contributions to an area of chemistry or a multidisciplinary area of chemistry. In addition, the successful candidate must attend the respective national meeting to present a 40-minute lecture on the second day of the meeting (Monday, March 23 or August 17, 2020). The Kavli Emerging Leader in Chemistry Lecturer will receive a $5,000 honorarium. All nominations must be submitted by the Division or Committee after approval from the respective Chair, so send nominations to Cheryl Cleveland.

Councilor Report
American Chemical Society, 258th ACS National Meeting, San Diego, California
August 25 – 29, 2019

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.

SAN DIEGO MEETING ATTENDANCE

The theme of the 258th ACS National Meeting was *Chemistry and Water*. Total Attendance was 12,409 which included 3,095 students, 995 exhibitors, 430 expo only, and 401 guests. For the 2019 Live Career Navigator there was a total of 31 participating employers, 81 open positions advertised, 239 job seekers, 270 "Lightning Talk" attendees, 1,180 career pathway registrations, and 555 career consultant interactions.

ACTIONS OF THE COUNCIL

The Council elected Anne M. Gaffney, Lydia E. M. Hines, Will E. Lynch, and Sally B. Peters for three-year terms (2020-2022), and Dee Ann Casteel for a one-year term (2020) on the Council Policy Committee (CPC). The Council elected Michelle V. Buchannan, Charles E. Cannon, Alan A. Hazari, Amber S. Hinkle, and Thomas H. Lane for three-year terms (2020-2022) on the Committee on Nominations and Elections (N&E). The Council elected Lisa M. Balbes, D. Richard Cobb, Emilio X. Esposito, Jason E. Ritchie, and Stephanie J. Watson for three-year terms (2020-2022) on the Committee on Committees (ConC).

- The Council approved the continuation of the Committees on International Activities and Professional Training, contingent on approval by the Board of Directors.
- The Council approved the creation of an ACS International Chemical Sciences Chapter in the Republic of Georgia, contingent on approval by the Board of Directors.
- The Council voted that the Pittsburgh Local Section be transferred from District II to District III in order to bring District III's member population into compliance with bylaw requirements.
- The Council passed resolutions: In memory of former Executive Director John Kistler Crum; In memory of other deceased Councilors; In recognition and celebration of the 100th birthday of Gerald Meyer and his 80 years of service to the Society; In gratitude for the officers and members of the San Diego Local Section – host Section for the 258th National Meeting, the divisional program chairs and symposium organizers, and ACS staff; and acknowledged Bonnie A. Charpentier's service as ACS President and presiding officer of the Council.
- Ballots for the 2019 Fall National Election will be distributed starting on September 30th, with a voting deadline four weeks later on October 25th. Election information may be viewed at acs.org/elections.

BUDGET AND FINANCE

The Society's 2019 financial performance through July 31st yielded a Net from Operations of $30.1 million. This is $10 million favorable to the Approved Budget, and $1.7 million less than the same period in 2018. Total revenues are right on budget at $338 million. Total expenses are $308 million, which is $10 million favorable to budget. Funding was approved for the 2020 Budget for the following additional programs: ChemIDP; the International Student Chapters Programs; and the Green and Sustainable Chemistry Education Resources pilot program. Additional information can be found at www.acs.org, at the bottom of the page, click 'About ACS', then 'Financial'.

ACTIONS OF THE BOARD OF DIRECTORS

The Board received and discussed reports from its committees on Budget and Finance, Professional and Member Relations, Strategic Planning, Executive Compensation, and Pensions and Investments, as well as the ACS Governing Board for Publishing, the Task Force on the Future of Meetings, and the Society Programs Globalization Board liaison.

- The Board voted to approve the Society's nominees for the 2020 National Science Board Public Service Award and the 2020 Tang Prize in Biopharmaceutical Science.
- The Board voted to approve the appointment and reappointment of editors-in-chief for ACS journals. Their names will be announced once they have been notified and practical arrangements for their service to ACS have been finalized.
- The Board voted to set the advance member registration fee for national meetings held in 2020 at $505 – this amount is equal to the 2019 fee, adjusted for inflation – and to approve or reauthorize several program funding requests.
- The Executive Director/CEO and his direct reports provided updates to the Board on the activities of Chemical Abstracts Service (CAS) and the ACS Publications Division. He offered updates on issues relating to the ACS Core Value of Diversity, Inclusion, and Respect; the current status of Society membership; ACS financials; initiatives associated with the International Year of Periodic Table; and upcoming events and activities. He invited the Executive Vice

President for Scientific Advancement to lead an informal discussion on key issues for that division.

- The Board heard reports from members of the Presidential Succession on their current activities as well as those planned for 2020, particularly the presidential symposia and endorsed symposia for the 2019 San Diego meeting.
- The Board liaison for globalization provided a summary of a recent Board survey and received additional feedback from the Board on the globalization vision for Society programs. The goal here is encouragement and expansion, where appropriate, of existing successful international activities and initiatives, as well as evaluating current products and programs; exploring additional options and opportunities; and advising the Board on the assembly of a coherent and balanced program portfolio appropriate to the globalized ACS of the twenty-first century.
- The Board received a preview of recommendations from the Committee on Strategic Planning for process improvements focused on streamlining the ACS strategic planning process, including an adjustment of the cycle time; inclusion of an analysis of professional association market dynamics; and concentration on only the highest-value elements for the Strategic Plan.
- The Board received its customary extensive briefing from its Committee on Executive Compensation. The compensation of the Society's executive staff continues to receive regular review by the Board.
- The Board received a status update from the Task Force on the Future of Meetings. The task force has been charged with performing a "deep dive" on the current portfolio of ACS meetings and conferences, identifying current offerings, evaluating governance and staff support structures, revenue streams, financial targets, and business models, and recommending actions that will ensure the sustainability and future relevance of that portfolio.
- The Board also held a discussion with members of the executive committee and staff leadership of the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) on the vision, mission, and structure of SACNAS. Various components of the recently signed Chemistry Enterprise Partnership agreement were discussed, emphasizing the shared overarching objective of promoting and achieving diversity in STEM. The Board agreed to the appointment of a joint ACS-SACNAS task force charged with developing additional short-term goals, evaluating continued partnership potential, and developing long-term goals.

ORAL COMMITTEE REPORTS TO COUNCIL

The following ACS Committees gave oral presentations to Council at the San Diego 2019 meeting: IAC Committee; Committee on Project SEED; Senior Chemists Committee (SCC); Committee on Minority Affairs (CMA); Committee on Chemists with Disabilities (CWD); Committee on Nominations and Elections (N&E); Committee on Technician Affairs (CTA); Committee on Committee (ConC); Committee on Divisional Activities (DAC); Committee on Public Relations and Communications (CPRC); Committee on Constitution & Bylaws (C&B); Committee on Meetings and Expositions (M&E); Committee on Community Activities (CCA); Committee on Environmental Improvement (CEI); Committee on Budget and Finance (B&F); Committee on Economic and Professional Affairs (CEPA); Committee on Ethics (ETHX); and Committee on Science (ComSci)

Notable Items

Committee on Project SEED

- To date, they have received approximately $384K in matching funds. There is approximately 8.78 million dollars in the Endowment Fund. A Webinar will be held on September 10th, 2019 to go over the current status and requirements for participation in the Project SEED program. Registration is available for the webinar at http://bit.ly/ProjectSEEDwebinar.

Divisional Activities Committee (DAC)

- DAC funded nine Innovative Project Grants (IPGs) totaling ~$56,000. DAC will consider another group of proposals next spring. The deadline for the next round of IPG submissions is February 1, 2020.
- DAC hosted a breakfast meeting, the goal of which was to provide a venue for program chairs to collaborate on programming and discuss programming needs and aspirations. Forty-two individuals representing twenty-five divisions, as well as the Committee on Meetings and Expositions, the Multidisciplinary Program Planning Group, and staff from Scientific Advancement and Membership and Society Services participated in a lively discussion.
- DAC shared with Divisions the concept of Convergence Research Communities. Based on feedback received, DAC will develop a plan for a pilot project to explore further the concept and will continue to seek feedback from Divisions.
- Seventeen divisions participated in *Division Row* at the Fall Meeting. AGRO participated.
- The Division of Energy and Fuels, the Division of Chemical Health & Safety, and the Division of Polymeric Materials: Science & Engineering won ChemLuminary Awards.

Committee on Meetings and Expositions (M&E)

- M&E continues to execute the strategy developed during our 2018 strategic planning session. We are working to enrich the attendee experience, including by concentrating the technical program in and near the convention center, enhancing poster sessions, and improving the exposition and other experiences for all attendees, while seeking ways to make the meeting more valuable to industrial attendees.
- ***The Technical Programming Subcommittee*** has proposed a method for setting later deadlines for fall meeting abstract submissions, after the spring meeting concludes, by enacting early room assignments for the San Francisco Fall 2020 meeting.
  - Each Division will know its room allotment by October 19, 2019. Room estimates will be based on the target of 8 oral presentations per half-day session.
  - Oral sessions will be a maximum of 4 hours and scheduled 8-noon and 1-5 PM.
  - MAPS will open for abstract submission April 6, 2020 giving more time between abstract submissions and the Fall 2019 ACS meeting.
  - Draft of the final program will be sent to Program Chairs May 12, 2020.
  - Even programming and location preferences will no longer be required.
- By recommendation of the Technical Programming Subcommittee, M&E will conduct a one-day experiment at the 2021 Spring National Meeting in San Antonio, TX, to create a dedicated mid-day window for poster programming exclusively in the exhibit hall. There will be no competing oral sessions, to prepare for the broader experiment in Atlanta in fall 2021.

- The Atlanta meeting will end on Wednesday with no Thursday programming. There will be no competing programming between posters and oral sessions. Technical sessions will begin at 7:30 AM to accommodate the new programing schedule.
- The M&E is continuing to utilize alternative meeting room sets. In close partnership with AGRO, five theaters were utilized for all AGRO technical programming in one ballroom at the Convention Center which also held the AGRO poster session event in the same room. ***AGRO got a big shout-out of appreciation from ACS staff for being willing to try out new ideas to enhance ACS meetings.***
- The concept of virtual presenters was discussed in cases of emergencies where the speakers could not attend the meetings.
- ***The Exposition and Industry Subcommittee*** continues to address the M&E strategic goal of increasing industrial participation in the Exposition. Two show floor Expo Theaters and the Industry Networking Lounge hosted over 15 industry-focused programs including an Entrepreneur Pitch Competition (ACS Shark Tank), featuring eight teams of start-up companies during the two-day exhibit.
- ***The M&E Subcommittee on Regional Meetings*** hosted a roundtable breakfast on Tuesday, August 27. This session allowed regional organizers and leadership to share best practices with their peers and provide valuable tools and resources for organizing and hosting regional meetings. Nearly 3,300 attendees participated in the five regional meetings this spring, and three regional meetings will take place this fall. The subcommittee continues to liaise with region boards and local sections hosting regional meetings to strengthen Regional Meeting support with enhanced resources.

Committee on Science (ComSci)

- Discussed the ACS Sustainable Chemistry & Engineering journal, highlighting the significant growth and impact of this publication since it was launched in 2013. The journal will mark the 50th anniversary of Earth Day in 2020 with a series of feature articles.
- ComSci reviewed the white paper entitled *Chemistry, ACS, and the U.N. Sustainable Development Goals*.
- The Sustainable Development Goals (SDGs) are an emerging area of programming, and divisions may wish to focus on the SDGs at future National Meetings.
- The Director of Product Management at Chemical Abstracts Service (CAS) provided an overview of how data mining techniques can help identify emerging areas of science. The amount of information that is being generated globally is increasing exponentially, and CAS is working to provide analysis on emerging trends.
- The Committee co-sponsored the *Immersive Virtual Reality for Molecular Design* symposium.
- ***The Subcommittee on Public Policy*** is preparing summary reports on five policy statements that will expire in 2020 in order to guide the work of the writing teams. These policy statements address competitive U.S. business climate, S&T funding, scientific integrity in public policy, sustainability in the chemical enterprise, and visa restrictions.
- The Committee reviewed the new immigration policy statement, which was approved by the ACS Board of Directors earlier this year.
- The committee voted to support the Petition on Membership and Dues and received updates on ACS efforts to address sexual harassment and the ConC committee demographic survey.

Committee on Committees (ConC)

- The Committee on Committees (ConC) began developing its recommendations for 2020 Committee Chair appointments and reappointments for consideration by the President-Elect and the Chair of the Board of Directors.
- The committee discussed the petition up for action by Council. ConC voted to endorse the Petition to Streamline the ACS Governing Documents.
- ConC participated in an orientation session that was held for new Councilors and Alternate Councilors to acquaint them with the Council and its structure and to encourage them to consider service through one of the Society's 32 Council-related Committees.
- ConC is preparing along with DAC for the upcoming Leadership Institute 2020 to be held in Atlanta, Georgia on January 24-26, 2020. METT Grant proposals will open September 2019 with a deadline of October 15, 2019.
- The Ethics Committee is moving to a project-oriented approach and will be working closely with Local Sections.
- ConC proposed to Council that the Committee on Senior Chemists, subject to concurrence by the Board of Directors, as required, be continued.
- As part of ConC's continuing effort to learn about the composition of our committees, broaden ACS member awareness, and provide an update on the survey conducted in 2016, the second committee demographic survey was launched on February 25. The survey was sent to over 750 committee participants of the 32 Council-related committees. The survey currently has a participation rate of 70%.
- ConC emphasized once again that it is not their intention to make the diversity topics listed in the survey the basis for an assignment on an ACS Committee, but to support our ACS Core Value of "Diversity, Inclusion, and Respect".
- Not all committees require only councilors for participation. A form for recommending ACS members for committee service is available at the ACS website. Although not everyone can be appointed to a committee, everyone receives thorough consideration for an assignment.

Committee on International Affairs (IAC)

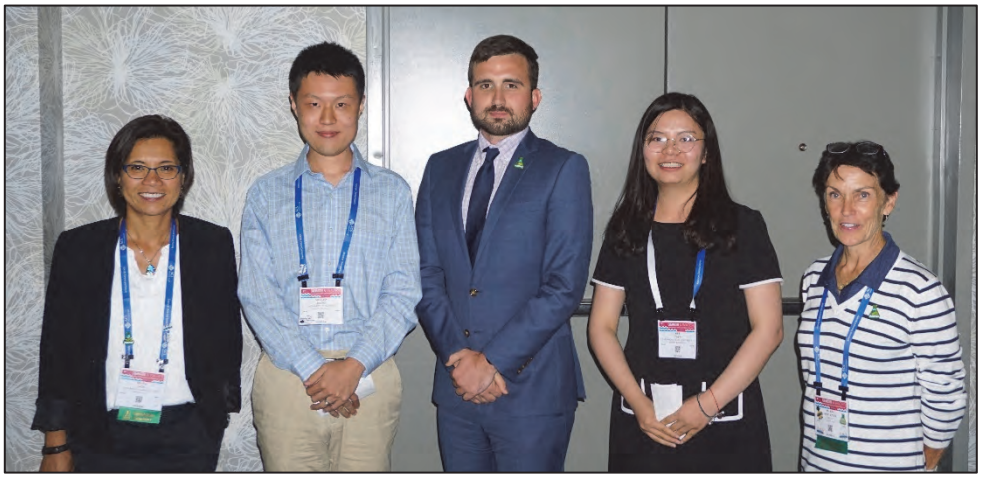
- The Committee on International Activities (IAC) continued its work to serve the ACS Board and Council in elaborating and refining ACS global presence efforts. The committee held a luncheon along with ACS President-Elect Luis Echegoyen who gave a presentation on his international priorities for his tenure in ACS leadership.
- At its subcommittee and Open meetings, the Committee welcomed dignitaries from our sister societies and partners from Brazil, Israel, and the European Chemical Society (EuChemS), and representatives from the Organisation for the Prohibition of Chemical Weapons (OPCW). Volunteer leaders of ACS International Chapters in Australia, Hungary, and Qatar attended. The IAC is looking for ways to improve co-alignment of activities among ACS International Chapters and other ACS entities. Presentations were made from several ACS member groups on their international programs and events, including DivCHED, LSAC, YCC, SOCED, and MAC.
- IAC welcomes any additional connections with ACS groups that have activities around the world.

NOTES

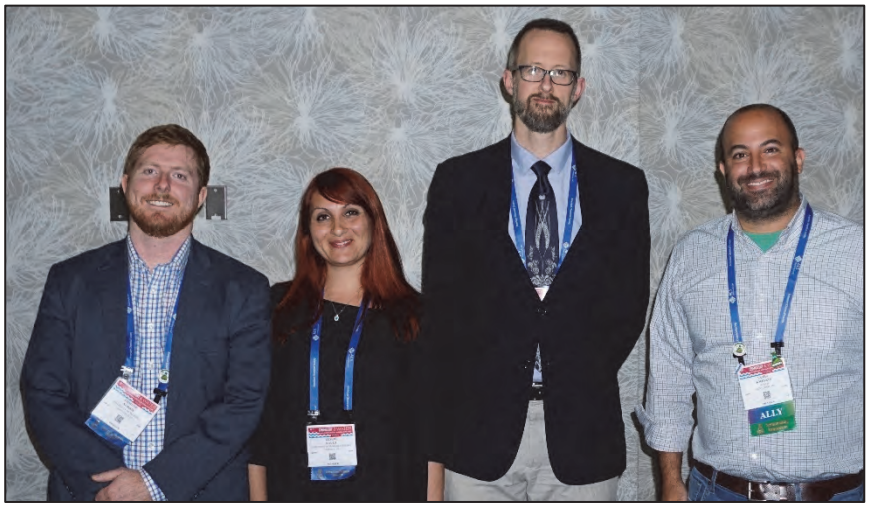
2019 AGRO SOCIAL

Do you see the match?

2019 AGRO Education Travel Award Recipients in alphabetical order: Matthew Byron, Rui Chen, Caleb Corona, Christopher Fellows, Mary Grace Guardian, Maura Hall, Shiyao Jiang, Ellis Johnson, James Klimavicz, Annie Krueger, Zhilin Li, Sarah McComic, Meerae Park, Ryan Paul, Vamshi Sammeta, Alexander Soohoo-Hui, Juliano Toniato, Jennifer Williams, and Zijiang Yang



2019 AGRO Education Travel Award 1st, 2nd, and 3rd Place Winners with Coordinators Diana Aga (far left) and Marja Koivunen (far right): Shiyao Jiang (2nd), Christopher Fellows (1st), and Rui Chen (3rd)



2019 AGRO New Investigator Award Winner Edmund Norris with finalists Leslie Rault and Scott O'Neal and Coordinator Sasha Kweskin

Future Chemist attending their first ACS National Meeting!

PICOGRAM V. 97

Call for Papers

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