



Integrated Pest Management
for our environment • for our future

**9th International
IPM Symposium**
*Improving Health,
Environment and Global
Sustainability*

March 19–22, 2018
Baltimore, MD



welcome

IPM: Improving Health, Environment and Global Sustainability

Welcome to the 9th international IPM Symposium!

Building on a tradition of 30 years, this event brings together a diverse group of IPM professionals from around the world to share their passion, collective wisdom, and success in finding IPM solutions, improving human health, and building environmental and global sustainability.

The field of IPM has never been so exciting, and crucial. Today's hottest research fields include global food security and the impact of climate change on food crops and vector-borne human disease.

The symposium offers us the rare opportunity to share the latest research, showcase our students as the scientists of the future, and learn from professional practitioners who apply science-based solutions and discover real-world emerging issues every day.

Our enthusiastic and energetic planning committees have worked to bring you a premier event including an opening keynote presentation by Dr. Dini M. Miller, Virginia Tech University, an internationally recognized expert in the area of bed bug and German cockroach IPM. There will be more than 40 concurrent sessions designed for practitioners, growers, educators, consultants, researchers, industry professionals, students, and employees of non-governmental organizations, and hot topic sessions including "Integrated Tick Management: Community-Wide Action to Address the Global Tick Problem." For the first time qualified sessions will come with Certified Crop Advisor credits in the IPM and professional development categories. In addition, the 2018 IPM Achievement Award winners will give presentations on their work.

More than 175 poster presentations this year include 45 student posters submitted for the IPM Inspiration Award.

As always attendees will have the opportunity to peruse exhibits from leading IPM suppliers, and enjoy field trips to see IPM in action in downtown Baltimore, and an optional trip to visit policymakers on Capitol Hill to educate them on IPM needs and benefits.

We would like to thank each of you for attending the IPM Symposium. Thanks to our sponsors, organizers, moderators, presenters, and participants for making the 9th International IPM Symposium a reality. You, as IPM leaders, have the vision, the knowledge, and dedication to forge a more sustainable future and a healthier world.

Enjoy!

9th International IPM Symposium Steering Committee Co-chairs

Dawn H. Gouge, University of Arizona

Lynnae Jess, North Central IPM Center

Eric Ritchie, McCain Foods

Thomas Green, IPM Institute of North America, Inc., Emeritus Co-chair



Integrated Pest Management *for our environment • for our future*

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I ILLINOIS

The 9th International IPM Symposium
is coordinated by the Center for
Innovation in Teaching & Learning.

ipmsymposium.org



sponsors and exhibitors

We thank our contributors and sponsors for their generous support of IPM and this symposium.

Mini-Symposia Sponsors

(\$7,500)

Biological Products Industry Alliance (BPIA)

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ISCA Technologies

Mainly Ticks, Inc.

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Tick Box Technology Corporation

Trécé, Inc.

University of California Statewide IPM Program

US BIOLOGIC

Exhibitors

Exhibits are located in Maryland Ballroom DEF on the 5th level of the Renaissance Baltimore Harborplace Hotel. The continental breakfasts and breaks will be in this room.

Alpha Scents, Inc.

AP&G (Catchmaster)

Biological Products Industry Alliance (BPIA)

CABI/CSIRO (dist. by Stylus Publishing)

Certis USA

CropLife America

Entomological Society of America

Integrated Pest Information Platform for Extension and Education (iPiPE)

The IR-4 Project

Mainly Ticks, Inc.

Marrone Bio Innovations

PESTlogics

Polyguard Barrier Systems

Regional IPM Centers

Thermal Remediation

Tick Box Technology Corporation

University of California Statewide IPM Program



general information

Registration and Information Desk

The Registration Desk will be located outside the Maryland Ballroom, on the 5th floor of the Renaissance Baltimore Harborplace Hotel.

The desk will be open:

Monday, March 19, 10:00 AM–7:00 PM

Tuesday, March 20, 7:30 AM–4:30 PM

Wednesday, March 21, 7:30 AM–4:30 PM

Thursday, March 22, 7:30 AM–12:00 PM

Baltimore visitor information and a small gift shop can be found near the front desk at the ground level of the Renaissance Baltimore Harborplace Hotel.

Wireless Access

There is basic Wi-Fi in all meeting rooms at the Renaissance Baltimore Harborplace Hotel. The network is **Renaissance_Conf**, and the password is **IPM2018**. If you have trouble connecting, please go to the Registration Desk for assistance.

Poster Sessions

The poster session will be held Wednesday, March 21, 4:30–6:30 PM in the Maryland Ballroom on the 5th floor of the Renaissance Baltimore Harborplace Hotel. While all posters will be displayed throughout the symposium, authors are asked to stand by their posters according to their poster number: odd numbers from 4:30–5:30 PM and even numbers from 5:30–6:30 PM.

Posters can be set up beginning at 10:00 AM on Tuesday. They should be in place by 4:30 PM on Wednesday. They can be removed after the poster session is over at 6:30 PM on Wednesday. They must be removed by 12:00 PM on Thursday.

If you would like to have your poster posted on the 2018 IPM Symposium web site, copy your poster as a .pdf file and send it to Michelle Marquart at mmarqua2@illinois.edu by May 15, 2018.

Poster Session Reception

All registered participants and their registered guests are invited to attend the reception, held during the poster session on Wednesday, March 21 from 4:30–6:30 PM in the Maryland Ballroom on the 5th level of the Renaissance Baltimore Harborplace Hotel. Hors d'oeuvres and a cash bar will be provided during the reception.



IPM Symposium 2018 App

Download the app by searching for “IPM Symposia.”

Use the app to:

- Plan your schedule.
- Read presentation and poster abstracts.
- Evaluate sessions.
- Receive meeting alerts.
- Find people.
- Explore sponsors and exhibitors.
- Post photos.
- Search local places and maps.

The mobile app was sponsored by the Southern IPM Center in cooperation with the organizers of the symposium. Both Android and iOS versions are available from the Google Play Store and the Apple iTunes App Store.



Silent Auction

The Silent Auction will be held Wednesday, March 21 from 4:30–6:30 PM. Visit us in Maryland Ballroom DEF at Booth 7, alongside the exhibitors, and bid on auction items to help offset the cost for non-traditional IPM professionals attending the Symposium. At every Symposium, we are limited in our support due to the overall Symposium costs. All proceeds from the Silent Auction will be used to fund registration and travel support at future symposia.

Presenter Practice Room

If presenters need to preview their presentations, come to the Registration Desk during its hours of operation.

Media

The Registration Desk will serve as the media desk, located outside the Maryland Ballroom on the 5th floor of the Renaissance Baltimore Harborplace Hotel. Reporters and other members of the media should register at the Registration Desk.

Session Moderators

If you have technical difficulties during your session, please find the volunteer monitors with ribbons in the hallways or come to the Registration Desk.

Continuing Education Credits

Certified Crop Advisor (CCA) credits and Maryland Department of Agriculture pesticide recertification credits are available. Attendance sign-in sheets will be located at the Registration Desk.

Post-Symposium Evaluation

An online evaluation survey will be conducted after the symposium. An e-mail message will be sent to you with the details; we hope you will take a few minutes to complete the survey. Your feedback has significant impact on the Steering Committee's evaluation for this year's Symposium and planning decisions for the next.

Abstracts, Presentations, and Posters

Complete abstracts can be found at the Web site: ipmsymposium.org.

Presentations and posters will be added to the Web site after the symposium.

Congratulations to the 2018 International IPM Achievement Award recipients

International IPM Awards of Excellence

Dr. Dawn H. Gouge, University of Arizona (Practitioner)

Megacopta Working Group, based in the University of Georgia's College of Agriculture and Environmental Sciences Department (Team)

North Central Soybean Entomology Research and Extension Team (Team)

IPM of Late Blight and FFS Activity Program, piloted by the International Potato Center (Team)

International IPM Lifetime Achievement Awards

Dr. Peter B. Goodell, University of California Statewide IPM Program

Dr. Frank G. Zalom, Department of Entomology and Nematology, University of California, Davis

International IPM Awards of Recognition

Mr. Rachid El Aini, Omnium Agricole du Souss, Morocco (Practitioner)

European Grapevine Moth Team, California (Team)

PRISME Consortium, Quebec, Canada (Team)

Pest Management University, Florida (Team)

International IPM Awards for Graduate Students

Ms. Annie Rich, University of Georgia (Masters Student)

Mr. Zachary DeVries, North Carolina State University (Doctoral Student)

**These recipients will be recognized during the
Opening Session on Monday, March 19.**



schedule at a glance

Monday, March 19

- 8:00–10:00 AM National IPM Coordinator Meeting
- 10:00 AM–5:00 PM Regional IPM Coordinator Meetings
- 10:00 AM–7:00 PM Registration Open
- 1:00–4:30 PM Field Trip A: IPM in Professional Sports Facility Management
- 1:00–4:30 PM Field Trip B: Urban Growth - The Green Kind
- 1:00–4:30 PM Field Trip C: Urban Housing IPM
- 1:00–5:00 PM Sysco Supplier Meeting
- 5:00–7:00 PM Opening Session with Keynote Dr. Dini Miller and Presentation of IPM Achievement Awards

Wednesday, March 21

- Beverages available in Maryland Ballroom DEF from 7:00 AM–5:00 PM*
- 7:30 AM–4:30 PM Registration Open
- 7:00–8:30 AM Continental Breakfast
- 8:30–10:00 AM Mini-Symposia & Concurrent Sessions
- 10:15–11:45 AM Mini-Symposia & Concurrent Sessions
- 11:45 AM–1:15 PM Lunch on your own
- 1:15–2:45 PM Mini-Symposia & Concurrent Sessions
- 3:00–4:30 PM Mini-Symposia & Concurrent Sessions
- 4:30–6:30 PM Poster Session, Exhibits & Silent Auction

Tuesday, March 20

Beverages available in Maryland Ballroom DEF from 7:00 AM–5:00 PM

- 7:30 AM–4:30 PM Registration Open
- 7:00–8:30 AM Continental Breakfast
- 8:30–10:00 AM Mini-Symposia & Concurrent Sessions
- 10:15–11:45 AM Mini-Symposia & Concurrent Sessions
- 11:45 AM–1:00 PM Student Educational Luncheon—Invitation Only
- 11:45 AM–1:15 PM Lunch on your own
- 1:15–2:45 PM Mini-Symposia & Concurrent Sessions
- 3:00–4:30 PM Mini-Symposia & Concurrent Sessions
- 5:00–6:00 PM School IPM Meet & Greet

Thursday, March 22

Beverages available in Maryland Ballroom DEF from 7:00 AM–12:00 PM

- 7:30 AM–12:00 PM Registration Open
- 7:00–8:30 AM Continental Breakfast
- 8:30–10:00 AM Concurrent Sessions
- 10:15–11:45 AM Closing Plenary
- 12:00–8:30 PM Optional Field Trip: Visit Capitol Hill to Educate Your Policy Makers about IPM!
- 12:00–5:00 PM Optional Workshop: Evaluation of IPM Programs
- 1:00–3:00 PM Organic and IPM Working Group Meeting

Follow the symposium:



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Session # Session Name

Mini-Symposia

- S1** Resistance Management—Sponsored by North Center IPM Center (organized by Susan Ratcliffe)
- S9** Social and Economic Aspects of IPM (organized by George Frisvold) | I CCA CEU—*Integrated Pest Management*
- S21** Biopesticide Technology: Science and Challenges—Sponsored by Biological Products Industry Alliance (BPIA) (organized by Matt Baur) 🍃 | I CCA CEU—*Integrated Pest Management*
- S32** Protection Pollinators—Sponsored by Syngenta (organized by Judy Wu-Smart) | I CCA CEU—*Integrated Pest Management*

Communication and New Tools in Pest Management

- S6** The Great Challenge: Communicating IPM to a Public Audience (organized by Michael Rozyne) 🏠 | I CCA CEU—*Professional Development*
- S8** Communicating IPM to Diverse Audiences (organized by Mary Kay Malinoski, David L. Clement) 🏠 | I CCA CEU—*Professional Development*
- S14** The New IPM: Where Is Crop Protection Taking Us? (organized by Susan Ratcliffe) | I CCA CEU—*Integrated Pest Management*
- S20** Novel Approaches to IPM Extension: Transferring Learning across Contexts (organized by Mary Halbleib) | I CCA CEU—*Professional Development*
- S26** Promoting IPM Techniques in State-sanctioned Study Materials for Pesticide Applicator Licensing: Best Practices from the Top Down (organized by Shannah Whithaus) 🏠 | I CCA CEU—*Integrated Pest Management*
- S30** Tools and Processes for the Transition towards Lower-risk Pesticide Programs in IPM systems (organized by Paul Jepson, Katie Murray) | I CCA CEU—*Integrated Pest Management*
- S37** Building Partnerships to Provide Pesticide Safety Education as Part of an IPM Program (organized by Kerry Richards) | I CCA CEU—*Integrated Pest Management*
- S43** Diagnostics, Biosecurity and IPM—Imagine the Future (organized by Martin Draper, Jim Stack) | I CCA CEU—*Integrated Pest Management*

Cross-Disciplinary

- S7** Weather Driven Epidemiological Forecasts for Efficient IPM Strategies (organized by Yu Takeuchi, Roger Magarey) 🍃 | I CCA CEU—*Integrated Pest Management*
- S23** Nanotechnology and its Increasing Role in IPM (organized by Wade Elmer, Mathews Paret) | I CCA CEU—*Integrated Pest Management*
- S34** IPM Achievement Award Winners (organized by Janet Hurley) | I CCA CEU—*Professional Development*

🍃 = Sessions applicable to crop consultants; food company field and sustainability leads including retailers, packers, shippers and processors; large national producer representatives; and producers

🏠 = Sessions applicable to urban, structural, and landscape IPM practitioners

Fruit, Nut, Specialty, Vegetable Crops

- S2** How Can Microbial Control Agents Fit into IPM? Examples from the Field (organized by Stefan Jaronski) 🌱 | I CCA CEU—Integrated Pest Management
- S10** Integrated Pest and Pollinator Management (IPPM): Integrating Pollinator Protection into Fruit and Nut IPM Programs (organized by David Biddinger, Ed Rajotte) 🌱 | I CCA CEU—Integrated Pest Management
- S16** Bee-Friendly Reaches Major Retailers of Ornamentals: The Industry Adapts (organized by Sharon Selvaggio) 🏠
- S22** *Drosophila suzukii* Management: What Have Researchers Been Spotting? (organized by Dalila Rendon, Cherre Bezerra DaSilva, Vaughn Walton) 🌱 | I CCA CEU—Integrated Pest Management
- S29** Maintaining IPM Integrity with Invasive Insects (organized by David Owens, Norman Leppla) 🌱 | I CCA CEU—Integrated Pest Management
- S33** The Spread and Management of the South American Tomato leafminer, *Tuta absoluta* (organized by Amer Fayad, Rangaswamy Muniappan) 🌱 | I CCA CEU—Integrated Pest Management
- S39** IPM Packages for Tropical Crops: How the IPM Innovation Lab Helps Achieve Food Security in the Developing World (organized by Amer Fayad, Rangaswamy Muniappan) | I CCA CEU—Professional Development

Practitioner

- S15** Getting the Most out of Drones in the Field (organized by IPM Institute of North America & Eric Ritchie) 🌱
- S31** How Growers Can Benefit from Weather Station Networks (organized by IPM Institute of North America) 🌱 | I CCA CEU—Integrated Pest Management
- S38** What Growers and Crop Advisors Need to Know about Managing Brown Marmorated Stink Bug Based on the Latest Research (organized by IPM Institute of North America) 🌱 | I CCA CEU—Integrated Pest Management
- S44** Effective Strategies for Minimizing Losses from Bagrada Bug (organized by IPM Institute of North America) 🌱 | I CCA CEU—Integrated Pest Management

Rangeland/Livestock/Pastures

- S11** IPM on Rangeland: Accomplishments and Challenges (organized by Alexandre Latchininsky) | I CCA CEU—Integrated Pest Management
- S17** Biological Control—A Sustainable Approach in the IPM Toolkit (organized by Lisa Tewksbury, Donna Ellis) 🌱 | I CCA CEU—Integrated Pest Management

Row/Agronomic Crops/Field Crops

- S4** Application of Trap and Cover Crops in Integrated Pest Management (organized by Gadi V.P. Reddy, Govinda Shrestha) 🌱 | I CCA CEU—Integrated Pest Management
- S12** Climate Change and Pest Biology (organized by Fernando E. Vega, Lewis H. Ziska) 🌱 | I CCA CEU—Integrated Pest Management
- S18** Managing the Former Allopatric *Helicoverpa zea* and *H. armigera* in the Americas: Experience and Challenges Going Forward (organized by Silvana Paula-Moraes, William D. Hutchison) 🌱 | I CCA CEU—Integrated Pest Management
- S24** Knowledge and Tools to Combat Western Bean Cutworm: An Emergent and Adaptive Pest in North American Maize (organized by Thomas Hunt, Débora G. Montezano, Julie A. Peterson, Fred Springborn, Katharine A. Swoboda Bhattarai) 🌱 | I CCA CEU—Integrated Pest Management
- S35** Organic Agriculture with Bio-intensive Pest Management as a Means to Adapt/Mitigate Climate Change (organized by Othumbamkatt Remadevi, Chandish R. Ballal)

Row/Agronomic Crops/Field Crops, *continued*

- S41** Soybean Cyst Nematode Resistance Management (organized by George Bird) 🌱 | 1 CCA CEU—Integrated Pest Management
- S46** Pesticide Use Determinants and Human Health (organized by Wei Zhang) | 1 CCA CEU—Integrated Pest Management

Urban/Structural/Landscape etc.

- S3** The Added Value of Amendments in Turfgrass IPM (organized by Joseph Roberts) 🏠
- S5** Assessment-Based Pest Management (APM)—Why We Must Make Monitoring and Pest Assessment the Foundation of All Structural Pest Management! (organized by Dini Miller, Michael E. Scharf) 🏠
- S13** Improving Health Outcomes Related to Asthma and Indoor Air Quality through Integrated Pest Management (organized by Michael Millican)
- S19** Pest Management and Indoor Allergen Reduction in Low Income Housing (organized by Rachel Riley)
- S25** School IPM: Sinking Ship or Soaring Success? A Discussion (organized by Shaku Nair) 🏠
- S28** Integrated Tick Management: Community-Wide Action to Address the Global Tick Problem (organized by Frank Laufenberg, Tom Green) 🏠
- S36** Moving IPM Indoors: Reaching Audiences Where They Are (organized by Susannah Reese) 🏠
- S42** IPM in Housing: A Round Table to Discussion on Diversifying the Messenger (organized by Faith Oi, Janet Hurley, Dini Miller, Shanika Preston) 🏠
- S45** Vector-Borne Diseases (organized by Stanton Cope)
- S47** Partnerships to Strengthen the Role of Pest Exclusion in IPM (organized by Jody Gangloff-Kaufmann, Matthew Frye)

🌱 = Sessions applicable to crop consultants; food company field and sustainability leads including retailers, packers, shippers and processors; large national producer representatives; and producers

🏠 = Sessions applicable to urban, structural, and landscape IPM practitioners



daily schedule

Monday, March 19

- 6:15–7:45 AM **Sysco Advisory Council Breakfast** | *Homeland*
- 8:00–10:00 AM **National IPM Coordinator Meeting** | *Watertable AB*
- 10:00 AM–5:00 PM **SERA-003 Meeting** | *Guilford*
- 10:00 AM–5:00 PM **NCERA-222 Meeting** | *Fells Point*
- 10:00 AM–5:00 PM **NEERA-1604 Meeting** | *Watertable C*
- 10:00 AM–5:00 PM **IPM in the West Meeting** | *Federal Hill*
- 1:00–5:00 PM **Sysco Supplier Meeting** | *Watertable AB*
- 1:00–4:30 PM **Field Trip A: “IPM in Professional Sports Facility Management”**
Field Trip B: “Urban Growth—The Green Kind”
Field Trip C: “Urban Housing IPM”
Meet at registration desk outside Maryland ABC at 12:45 PM
- 4:00–5:00 PM **Beverages and snacks** | *Baltimore Foyer*
- 5:00–7:00 PM **Opening Plenary Session** | *Baltimore Ballroom*
Keynote: “How the Misapplication of “IPM (Integrated Pest Management)” in the Urban Environment Has Impacted German Cockroach Infestations—A Case for Assessment-Based Pest Management (APM)” | *Dr. Dini M. Miller*
Presentation of IPM Achievement Awards

Tuesday, March 20

- 8:30–11:45 AM **Concurrent Sessions**
- 8:30–11:45 AM S1. Resistance Management (Mini-Symposium) | *Baltimore A*
- 8:30–11:45 AM S2. How Can Microbial Control Agents Fit into IPM? Examples from the Field | *Baltimore B*
- 8:30–10:00 AM S3. The Added Value of Amendments in Turfgrass IPM | *Guilford*
- 8:30–11:45 AM S4. Application of Trap and Cover Crops in Integrated Pest Management | *Homeland*
- 8:30–11:45 AM S5. Assessment-Based Pest Management (APM)—Why We Must Make Monitoring and Pest Assessment the Foundation of all Structural Pest Management! | *Fells Point*
- 8:30–10:00 AM S6. The Great Challenge: Communicating IPM to a Public Audience | *Federal Hill*
- 10:15–11:45 AM S7. Weather Driven Epidemiological Forecasts for Efficient IPM Strategies | *Guilford*
- 10:15–11:45 AM S8. Communicating IPM to Diverse Audiences | *Federal Hill*
- 11:45 AM–1:15 PM **Today’s IPM Experts Sharing Knowledge with Tomorrow’s IPM Leaders—Student Educational Luncheon** (by invitation) | *Watertable AB*

11:45 AM–1:15 PM **Lunch on your own**

1:15–4:30 PM **Concurrent Sessions**

- 1:15–4:30 PM S9. Social and Economic Aspects of IPM (Mini-Symposium) | *Baltimore A*
- 1:15–2:45 PM S10. Integrated Pest and Pollinator Management (IPPM): Integrating Pollinator Protection into Fruit and Nut IPM Programs | *Baltimore B*
- 1:15–2:45 PM S11. IPM on Rangeland: Accomplishments and Challenges | *Guilford*
- 1:15–2:45 PM S12. Climate Change and Pest Biology | *Homeland*
- 1:15–2:45 PM S13. Improving Health Outcomes Related to Asthma and Indoor Air Quality through Integrated Pest Management | *Fells Point*
- 1:15–2:45 PM S14. The New IPM: Where Is Crop Protection Taking Us? | *Federal Hill*
- 1:15–2:45 PM S15. Getting the Most out of Drones in the Field | *Watertable C*
- 3:00–4:30 PM S16. Bee-Friendly Reaches Major Retailers of Ornamentals: The Industry Adapts | *Baltimore B*
- 3:00–4:30 PM S17. Biological Control—A Sustainable Approach in the IPM Toolkit | *Guilford*
- 3:00–4:30 PM S18. Managing the Former Allopatric *Helicoverpa zea* and *H. armigera* in the Americas; Experience and Challenges Going Forward | *Homeland*
- 3:00–4:30 PM S19. Pest Management and Indoor Allergen Reduction in Low Income Housing | *Fells Point*
- 3:00–4:30 PM S20. Novel Approaches to IPM Extension: Transferring Learning Across Contexts | *Federal Hill*

5:00–6:00 PM **School IPM Meet & Greet** | *Watertable AB*

Everyone is invited to discuss school IPM.

Wednesday, March 21

8:30–11:45 AM **Concurrent Sessions**

- 8:30–11:45 AM S21. Biopesticide Technology: Science and Challenges (Mini-Symposium) | *Baltimore A*
- 8:30–10:00 AM S22. *Drosophila suzukii* Management: What Have Researchers Been Spotting? | *Baltimore B*
- 8:30–11:45 AM S23. Nanotechnology and its Increasing role in IPM | *Guilford*
- 8:30–11:45 AM S24. Knowledge and Tools to Combat Western Bean Cutworm: An Emergent and Adaptive Pest in North American Maize | *Homeland*
- 8:30–11:45 AM S25. School IPM: Sinking Ship or Soaring Success? A Discussion | *Fells Point*
- 8:30–10:00 AM S26. Promoting IPM Techniques in State-sanctioned Study Materials for Pesticide Applicator Licensing: Best Practices from the Top Down | *Federal Hill*
- 8:30–11:45 AM S28. Integrated Tick Management: Community-Wide Action to Address the Global Tick Problem | *Watertable AB*
- 10:15–11:45 AM S29. Maintaining IPM Integrity with Invasive Insects | *Baltimore B*
- 10:15–11:45 AM S30. Tools and Processes for the Transition towards Lower-risk Pesticide Programs in IPM Systems | *Federal Hill*
- 10:15–11:45 AM S31. How Growers Can Benefit from Weather Station Networks | *Watertable C*

11:45 AM–1:15 PM **Lunch on your own**

1:15–4:30 PM	Concurrent Sessions
1:15–4:30 PM	S32. Protecting Pollinators (Mini-Symposium) <i>Baltimore A</i>
1:15–2:45 PM	S33. The Spread and Management of the South American Tomato Leafminer, <i>Tuta absoluta</i> <i>Baltimore B</i>
1:15–2:45 PM	S34. IPM Achievement Award Winner Presentations <i>Homeland</i>
1:15–2:45 PM	S35. Organic Agriculture with Bio-intensive Pest Management as a Means to Adapt/Mitigate Climate Change <i>Guilford</i>
1:15–2:45 PM	S36. Moving IPM Indoors: Reaching Audiences Where They Are <i>Fells Point</i>
1:15–2:45 PM	S37. Building Partnerships to Provide Pesticide Safety Education as part of an IPM Program <i>Federal Hill</i>
1:15–2:45 PM	S38. What Growers and Crop Advisors Need to Know about Managing Brown Marmorated Stink Bug based on the Latest Research <i>Watertable C</i>
1:15–4:30 PM	S28. Integrated Tick Management: Community-Wide Action to Address the Global Tick Problem <i>Watertable AB</i>
3:00–4:30 PM	S39. IPM Packages for Tropical Crops: How the IPM Innovation Lab Helps Achieve Food Security in the Developing World <i>Baltimore B</i>
3:00–4:30 PM	S41. Soybean Cyst Nematode Resistance Management Coalition <i>Homeland</i>
3:00–4:30 PM	S42. IPM in Housing: A Round Table to Discussion on Diversifying the Messenger <i>Fells Point</i>
3:00–4:30 PM	S43. Diagnostics, Biosecurity and IPM—Imagine the Future <i>Federal Hill</i>
3:00–4:30 PM	S44. Effective Strategies for Minimizing Losses from Bagrada Bug <i>Watertable C</i>
4:30–6:30 PM	Poster Session, Exhibits and Silent Auction <i>Maryland Ballroom</i>
	<i>Odd numbers present 4:30–5:30 PM</i>
	<i>Even numbers present 5:30–6:30 PM</i>

Thursday, March 22

8:30–10:00 AM	Concurrent Sessions
8:30–10:00 AM	S45. Vector-Borne Diseases <i>Watertable Ballroom</i>
8:30–10:00 AM	S46. Pesticide Use Determinants and Human Health <i>Federal Hill</i>
8:30–10:00 AM	S47. Partnerships to Strengthen the Role of Pest Exclusion in IPM <i>Homeland</i>
10:15–11:45 AM	Closing Plenary Session <i>Baltimore Ballroom</i>
	“Why IPM Makes a Difference: Lessons from a Lifetime” Dr. George W. Norton
	“The ‘I’ in IPM: Reflections on the International IPM Symposium and Evolution of the IPM Paradigm” Dr. Frank G. Zalom
	“Integrated Pest Management: Revitalizing and Reinvesting in a Proven Paradigm” Dr. Peter B. Goodell
12:00–8:30 PM	Field Trip: Visit Capitol Hill to Educate Your Policy Makers about IPM! <i>Meet at registration desk outside Maryland ABC at 11:45 AM</i>
12:00–5:00 PM	Optional Workshop: “Evaluation of IPM Programs” <i>Fells Point</i>
1:00–3:00 PM	Organic and IPM Working Group Meeting <i>Guilford</i>



poster numbers and titles

The poster session is on Wednesday, March 21, 4:30–6:30 pm in the hotel. While all posters will be displayed throughout the symposium, authors are asked to stand by their posters according to their poster number: odd numbers from 4:30–5:30 pm and even numbers from 5:30–6:30 pm.

- P1** Be part of the buzz! A live conversation about biocontrol at the 9th International IPM Symposium
- P2** Hedgerow benefits align with food production and sustainability goals
- P3** Soil solarization for integrated pest management in the Pacific Northwest (USA)
- P4** Weather and climate driven models for IPM and invasive species management
- P5** Grower valuation of the Network for Environment and Weather Applications
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map of meeting space

FIFTH FLOOR

