

# 2016 PENNSYLVANIA AGRONOMIC EDUCATION CONFERENCE



JANUARY 21-22, 2016  
PENN STATER CONFERENCE CENTER  
STATE COLLEGE, PA

Hosted by:  
The Pennsylvania  
Agronomic  
Education Society



## what you can expect

The Pennsylvania Agronomic Education Conference is a winter tradition for Pennsylvania's agronomy industry. This two-day educational event provides technical information for all aspects of crop production and allows industry, academia and state agency representatives to network and discuss the newest technologies and systems you can use when advising your Pennsylvania crop producer clientele.

In addition to the conference sessions, the annual business meeting of the Pennsylvania Agronomic Education Society will take place on Thursday, January 21 during lunch. At this time the 2016 PAES Board will be elected and the Member of the Year announced.

## cost

**Full Conference registration** includes all meeting materials, group lunch, breaks and Wednesday evening hors d'oeuvres reception. Registration fee also includes a one-year membership in the Pennsylvania Agronomic Education Society, a \$25 value.

**Two Day Early Bird Registration** (On/Before 12-31-2015) ..... **\$220**

**Two Day Registration** (After 12-31-2015 and Walk-Ins)..... **\$240**

**One Day Registration**..... **\$150**

**Online registration** (payable with credit card) is available at <http://www.cvent.com/d/nfqk2s>.

For those who cannot participate in the conference, but would like to maintain membership in the Society, please use the **Membership only** section of the registration form to submit your dues. No other dues notification or reminder will be sent for this purpose.

**PAES Membership Dues Only** ..... **\$25**

## lodging

Our home for the Conference will be the Penn Stater Conference Center Hotel, located at 215 Innovation Blvd. near the Route 322 bypass. Attendees are responsible for making their own lodging arrangements by calling the hotel at (800) 233-7505. Room rates of \$96 plus tax per night/single occupancy apply when using Reservation Identification Number **PAEA16B** or referring to the conference name. *Room availability and rates cannot be guaranteed after **December 26, 2015***. Room cancellations must be made at least 72 hours prior to the arrival date to avoid a possible fee.

## certification program credits

Continuing education credits for the following Pennsylvania certification programs and licenses will be requested and available where appropriate and approved:

- **Certified Crop Advisers**
- **Pennsylvania Pesticide Program**
- **Pennsylvania Nutrient Management Certification Program**

Credits listed are **pending**. Upon approval, credits will be listed on the appropriate certification program website. A full listing of credits will also be included in the daily agenda distributed at the Conference.

## questions?

Contact Amy Bradford at 717-651-5920 or [abradford@pennag.com](mailto:abradford@pennag.com). This information may be found online at [www.agsci.psu.edu/paes/conference](http://www.agsci.psu.edu/paes/conference).

## certified crop advisor app

The CCA program will continue using QR Codes as an alternative to sign-in sheets. Smartphone users should download the "Certified Crop Adviser" App by scanning the codes below or visiting iTunes (iPhone/iPad) and Play Store (Android) prior to arriving at the conference.

Please note you will need a QR Code Reader installed on your phone or tablet/IPAD prior to being able to access the App.

Contact Amy Bradford ([abradford@pennag.com](mailto:abradford@pennag.com) or 717-651-5920) for assistance.



iPhone



Android

## agenda - thursday, january 21, 2016

|                     |  |
|---------------------|--|
| 8 am                | <p align="center"><b>Registration and Visit Exhibits</b><br/><i>(Outside President's Hall)</i></p>   |
| 9:30 – 11:30 am     | <p align="center"><b>Welcome and General Session</b><br/><i>Moderator – John Rowehl, Conference Chair</i><br/><i>(President's Hall 3&amp;4)</i></p> <p><b>“The Year in Review from an Agriculture Economics Perspective”</b><br/><i>Lou Moore, Penn State University - Retired</i><br/>Lou joins us to share his annual Ag Econ insight on current crop commodity economic trends and perspective of what the coming year may bring.<br/><b>0.5 CM CCA CEU</b></p> <p><b>“Understanding the Honey Bee Decline”</b><br/><i>Maryann Frazier, Penn State University</i><br/>The honey bee decline is a complex issue. This session will provide an update on the ongoing population decline, give an overview of possible causes and highlight current research projects.<br/><b>1.0 CM CCA CEU</b></p> <p><b>“New and Reemerging Crop Disease Issues”</b><br/><i>Alyssa Collins, Penn State University</i><br/>Just when you thought you’ve got a handle on plant health, new diseases show up and forgotten ones come back to haunt us. Get an update on what’s new and what you should be considering in 2016 and beyond.<br/><b>0.5 PM CCA CEU; PA Pesticide (Pending Approval)</b></p> |
| 11:30 am – 12:30 pm | <p align="center"><b>Group Lunch</b><br/><i>(Included in Registration)</i><br/><i>(President's Hall 1&amp;2)</i></p>   |
| 12:30 pm            | <p align="center"><b>General Session</b><br/><i>(President's Hall 3&amp;4)</i></p> <p><b>“Fertilizer Markets – What’s Ahead!”</b><br/><i>Glen Buckley, NPK Fertilizer Advisory Service</i><br/>The presentation will provide a general overview of the current nitrogen, phosphate and potash markets. It will also provide a discussion of the key factors likely to drive the fertilizer markets both short-term and long-term as well as our outlook for supply availability and prices.<br/><b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p>  |
| 1:30 pm             | <p align="center"><b>Visit Exhibits</b><br/><i>(Outside President's Hall)</i></p>  |

## thursday, january 21 (cont.)

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|--|--|--|
| <p><b>2 – 2:50 pm</b></p>  | <p><b>Breakout Sessions – Group One</b></p>  |  |
| <p><b>Breakout A – Room 206</b><br/> <b>“Weeds: A Year in Review and Considerations for 2016”</b><br/> <i>Dwight Lingenfelter, Penn State University</i><br/>           This session will provide an overview of some research results and key weed control issues that we dealt with this past year as well as provide insight on some potential problem weeds in the upcoming growing season. We will discuss management of weeds such as marestalk, Palmer amaranth, waterhemp, ragweed, among others.<br/> <b>1.0 PM CCA CEU; PA Pesticide (Pending Approval)</b></p>  | <p><b>Breakout B – Room 207</b><br/> <b>“Changing View on Fungicides: Are They No Longer Just for Fungal Disease Control?”</b><br/> <i>Eric Tedford, Syngenta</i><br/>           Fungicide use on row crops has increased significantly over the past decade largely due to physiological effects from strobilurin fungicides that translate into economic benefits to growers. These benefits go beyond just biotic disease control; they also include mitigation of abiotic stresses that can adversely affect crop yield and quality. This presentation will address grower benefits and the science behind those benefits.<br/> <b>1.0 PM CCA CEU; PA Pesticide (Pending Approval)</b></p>   | <p><b>Breakout C – Room 208</b><br/> <b>“Fertilizer Hedging Tools”</b><br/> <i>Scott Kleckner, INTL FCStone</i><br/>           This session will provide an intro on fertilizer hedging tools and uses.<br/> <b>1.0 NM CCA CEU</b></p>                                     |
| <p><b>3 – 3:50 pm</b></p>  | <p><b>Breakout Sessions – Group Two</b></p>  |  |
| <p><b>Breakout A – Room 206</b><br/> <b>“Do You Need a Soil Health Test?”</b><br/> <i>Charlie White, Penn State Extension</i><br/>           Soil health is increasingly of interest to farmers and crop advisers and several soil health testing services are currently available, such as the Cornell Soil Health Test and the Solvita Soil Health Tool. This presentation will describe the soil properties that are measured by these soil health testing services and how they relate to crop management. Finally, we will discuss how standard soil test measurements, such as percent organic matter and Mehlich 3 nutrient concentrations compare to the new suite of soil health measurements using a dataset of soil samples collected from two dozen crop fields and pastures in Pennsylvania.<br/> <b>1.0 SW CCA CEU, PA NM (Pending Approval)</b></p> | <p><b>Breakout B – Room 207</b><br/> <b>“What are the Components of a Plasticulture Production System for Vegetable Crops in Pennsylvania”</b><br/> <i>Dr. William Lamont, Penn State University</i><br/>           The components of a plasticulture system of vegetable production will be discussed with thoughts on the various components and the major crops grown using this technology. These components are plastic mulches, drip irrigation systems, fertigation, stand establishment, windbreaks, pest management, season extension technology, and pest management on the following crops: tomatoes, peppers, eggplant, summer squash, cucumbers, muskmelons, pumpkins, cole crops, and sweet corn.<br/> <b>1.0 CM CCA CEU</b></p> | <p><b>Breakout C – Room 208</b><br/> <b><u>REPEATED SESSION</u></b><br/> <b>“Fertilizer Hedging Tools”</b><br/> <i>Scott Kleckner, INTL FCStone</i><br/>           This session will provide an intro on fertilizer hedging tools and uses.<br/> <b>1.0 NM CCA CEU</b></p> |

## thursday, january 21 (cont.)

|             |   |
|-------------|---|
| 4 – 5 pm    | <p style="text-align: center;"><b>General Session</b><br/>(President's Hall 3&amp;4)</p> <p><b>“Genetically Modified Organisms – The Technology of Genetic Engineering and How it is Changing Agriculture”</b><br/><i>Dr. Troy Ott, Penn State University</i></p> <p>This talk will cover the basics of genetic engineering and discuss new technologies that are making the process more precise and affordable. We will review the history of genetic engineering, current GMO foods and future directions. Finally, we will discuss risks and benefits of GE along with consumer perceptions of the technologies.</p> <p><b>1.0 CM CCA CEU</b></p> |
| 5 – 6:30 pm | <p style="text-align: center;"><b>Hospitality Hour</b><br/>(Senate Lounge)</p> <p>Enjoy a relaxing time visiting with friends and colleagues.</p>   |
| 7 pm        | <p style="text-align: center;"><b>Student/Industry Workshop</b><br/>(ASI Building)</p>  |

## agenda - friday, january 22, 2016

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|---|---|---|
| 7:30 – 9 am   | <p style="text-align: center;"><b>General Session</b><br/>(President's Hall 1&amp;2)</p> <p style="text-align: center;"><b>Moderator –Larry Burkhart, PAES President</b></p> <p><b>“2015 Weather Recap and What’s In Store for 2016”</b><br/><i>Kyle Imhoff, Penn State University</i></p> <p>A recap of weather across the United States (with a focus on Pennsylvania) for the calendar year 2015 will be presented. Additionally, a look ahead to the weather in 2016 will be discussed. Some long-range forecasting techniques will be highlighted to explain the process of seasonal forecasting.</p> <p><b>0.5 CM CCA CEU</b></p> <p><b>“Late Season Nutrient Requirements for High Yielding Corn”</b><br/><i>Dr. James Camberato, Purdue University</i></p> <p>Seasonal patterns of macro- and micro-nutrient uptake will be discussed related to nitrogen fertilization. Response to late-season nitrogen and partitioning of nutrients in plant parts will also be discussed.</p> <p><b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p> |   |
| <p>9:30 – 10:20 am</p> <p><b>Breakout A – Room 206</b><br/><b>“Late Season Nutrient Requirements for Soybeans”</b><br/><i>Dr. James Camberato, Purdue University</i></p> <p>Seasonal patterns of macro- and micro-nutrient uptake will be discussed for soybean. Partitioning in plant parts and changes in nutrient uptake related to genetic improvement will also be discussed.</p> <p><b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p> | <p style="text-align: center;"><b>Breakout Sessions – Group One</b></p> <p><b>Breakout B – Room 207</b><br/><b>“Technologies in Nutrient Broadcasting that Maximizes Productivity and Improves Efficiencies”</b><br/><i>Craig Fenstermaker, Highway Equipment Company/New Leader</i></p> <p>This session will focus on meeting the 4R's through new technologies in dry nutrient applications. Specifics will be provided pertaining to how technologies in broadcasting equipment and enhanced nutrient technologies together will help maximize productivity and improve efficiencies in your dry nutrient application.</p> <p><b>NM CCA CEU; PA NM (Pending Approval)</b></p>  | <p><b>Breakout C – Room 208</b><br/><b>“Planting Green: Delaying Cover Crop Termination Until Cash Crop Planting”</b><br/><i>John Tooker, Heather Karsten and Heidi Myer, Penn State University</i></p> <p>Working with farmers, Penn State agronomy and entomology researchers are comparing “planting green” or terminating cover crops at the time of planting the subsequent cover crop or within 4 days, as compared to 10 days – 2 weeks prior to cash crop planting. A summary of what was learned in 2015, the first year of research from five locations across Pennsylvania will be presented.</p> <p><b>1.0 SW CCA CEU; PA NM (Pending Approval)</b></p> |

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|--|---|--|--|--|
| <p><b>10:35 – 11:25 am</b></p> <p><b>Breakout A – Room 206</b><br/> <b>REPEATED SESSION</b><br/> <b>“Late Season Nutrient Requirements for Soybeans”</b><br/> <i>Dr. James Camberato, Purdue University</i><br/>         Seasonal patterns of macro- and micro-nutrient uptake will be discussed for soybean. Partitioning in plant parts and changes in nutrient uptake related to genetic improvement will also be discussed.<br/> <b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p>   | <p style="text-align: center;"><b>Breakout Sessions – Group Two</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="626 107 1133 1079"> <p><b>Breakout B – Room 207</b><br/> <b>“Setup, Operations and Calibration of Broadcast Spreaders”</b><br/> <i>Craig Fenstermaker, Highway Equipment Company/New Leader</i><br/>           Maintenance, setup, operations and calibration are key to precision nutrient placement and application. This session will answer the question: With variable nutrient products, how do you setup your broadcast spreader to maximize broadcast capabilities and improve your efficiencies?<br/> <b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p> </td> <td data-bbox="1133 107 1611 1079"> <p><b>Breakout C – Room 208</b><br/> <b>“Correlating Plant Analysis and Soil Testing to Plant Growth and Yield”</b><br/> <i>Tim Hoerner, Agri Analysis, Inc.</i><br/>           This session will assist users of analytical services in their understanding of the basic principles of how Soil Analysis and Plant Analysis work together to maximize economic crop productivity while reducing nutrient risks to the environment. Descriptions of several forms of plant analysis and soil analysis will be provided, along with explanations of the underlying analysis steps associated with each. The use of the resulting analysis data to promote maximum plant growth and yields will be discussed.<br/> <b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p> </td> </tr> </table> |  | <p><b>Breakout B – Room 207</b><br/> <b>“Setup, Operations and Calibration of Broadcast Spreaders”</b><br/> <i>Craig Fenstermaker, Highway Equipment Company/New Leader</i><br/>           Maintenance, setup, operations and calibration are key to precision nutrient placement and application. This session will answer the question: With variable nutrient products, how do you setup your broadcast spreader to maximize broadcast capabilities and improve your efficiencies?<br/> <b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p> | <p><b>Breakout C – Room 208</b><br/> <b>“Correlating Plant Analysis and Soil Testing to Plant Growth and Yield”</b><br/> <i>Tim Hoerner, Agri Analysis, Inc.</i><br/>           This session will assist users of analytical services in their understanding of the basic principles of how Soil Analysis and Plant Analysis work together to maximize economic crop productivity while reducing nutrient risks to the environment. Descriptions of several forms of plant analysis and soil analysis will be provided, along with explanations of the underlying analysis steps associated with each. The use of the resulting analysis data to promote maximum plant growth and yields will be discussed.<br/> <b>1.0 NM CCA CEU; PA NM (Pending Approval)</b></p> |
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| <p><b>11:35 am – 12:35 pm</b></p>  | <p style="text-align: center;"><b>General Session</b><br/> <i>(President’s Hall 3&amp;4)</i><br/> <b>Moderator – Nicole Carutis, PAES President-Elect</b><br/> <b>“GMO Retailer/Consumer Trends”</b><br/> <i>David McCorkle, Pennsylvania Food Merchants Association</i><br/>           This session will provide a brief update on GMO legislative labeling initiatives and international consumer education trends. Mr. McCorkle will suggest that a team approach linking production agriculture, food processors, distributors and retailers is a better method for addressing consumer concerns than regulatory and legislative initiatives.<br/> <b>1.0 CM CCA CEU</b></p>  |  |  |  |
| <p><b>12:45-1:45 pm</b></p>  | <p style="text-align: center;"><b>Lunch &amp; Annual PAES Business Meeting</b><br/> <i>(Included in Registration)</i><br/> <i>(President’s Hall 1&amp;2)</i><br/> <b>Emcee: Larry Burkhart, PAES President</b></p> <p style="text-align: center;">After lunch we will conduct the 2016 Society Annual Business Meeting, election of the 2016 PAES Board, 2016 Member of the Year Award presentation.</p> <p style="text-align: center;"><b>“Closing Comments/Adjourn” – Nicole Carutis, PAES President – Elect</b></p>  |  |  |  |



# Pennsylvania Agronomic Education Conference

January 21-22, 2016

Penn Stater Conference Center - State College, PA

## Registration Form

For reduced conference fee register before Midnight on December 31, 2015!

### Two Ways to Register:

- Online (with Credit Card)** – Simply log onto <http://www.cvent.com/d/nfqk2s> to enter your contact information, registration preferences and credit card information for immediate registration, credit card processing and confirmation/receipt of payment.
- Via Fax/Email/Mail** – Those requesting an invoice or paying by check may complete the information below and return to:

Amy Bradford | PAES  
 2215 Forest Hills Drive, Suite 39 | Harrisburg PA 17112  
 P: 717-651-5920 | F: 717-651-5926 | E: [abradsford@pennag.com](mailto:abradsford@pennag.com)

| CONTACT INFORMATION   |        |           |         |   |
|---|--------|-----------|---------|---|
| Information will be used for PAES membership purposes.  |        |           |         |   |
| Name:   |        |           |         | I am a CCA:<br><input type="checkbox"/> Yes <input type="checkbox"/> No |
| Company/Affiliation:  |        |           |         |   |
| Address:  |        |           |         |   |
| City:   | State: | Zip Code: | E-mail: |   |
| Phone:  | Cell:  |           | Fax:    |   |
| I prefer to receive information via: <input type="checkbox"/> Mail <input type="checkbox"/> Fax <input type="checkbox"/> Email      |        |           |         |   |
| I would be interested in serving on the: <input type="checkbox"/> PAES Board <input type="checkbox"/> Conference Planning Committee |        |           |         |   |

| REGISTRATION   |   |   |                 |
|--|---|---|-----------------|
| Fee includes all conference materials, meals (Thursday breakfast, Thursday reception, lunch both days, breaks both days) and one year Society membership dues (\$25 value) for one person. |   |   |                 |
| Full Conference Registration   | <input type="checkbox"/> Before December 31<br><b>\$220</b>   | <input type="checkbox"/> After December 31 or Walk-In<br><b>\$240</b> | Total: \$ _____ |
| One Day Registration   | <input type="checkbox"/> <b>\$150</b><br>I Will Attend: <input type="checkbox"/> Thursday, Jan. 21 <input type="checkbox"/> Friday, Jan. 21 |   | Total: \$ _____ |
| Extra Luncheon Tickets   | Thursday, January 21<br># _____ x \$25  | Friday, January 22<br># _____ x \$25                                  | Total: \$ _____ |
| <b>Grand Total Due</b>   |   |   | \$ _____        |
| Please List Any Special Dietary Needs: _____   |   |   |                 |

| ANNUAL PAES MEMBERSHIP ONLY  |                 |
|--|-----------------|
| For those interested in PAES membership but <i>unable to attend</i> conference. <input type="checkbox"/> <b>\$25</b> | Total: \$ _____ |

| PAYMENT OPTIONS   |  |
|---|--|
| <input type="checkbox"/> Check Enclosed (Payable to <b>PAES</b> ) | <input type="checkbox"/> Please Invoice Me |

## Help us grOW the future of Pennsylvania's agronomic industry!

Your **Pennsylvania Agronomic Education Society** has partnered with the Centre Foundation to raise funds to endow the **PA Agronomic Education Society Trustee Scholarship** for Penn State students seeking a degree in the crop and soil sciences. PAES has committed to raise \$50,000 in order to endow a scholarship that will receive matching funds from the PSU Board of Trustees. Our commitment alone has already led to two scholarships being rewarded. To meet our commitment to the PSU Board of Trustees and create the scholarships into perpetuity, we ask for you to join the effort to make this commitment to our agronomic future a reality! Donations are tax deductible, charitable contributions! **Follow these easy steps to donate toward helping our crop of students grow!**



Step One

Visit [www.centre-foundation.org/funds/336-pennsylvania-agronomic-education-society-fund](http://www.centre-foundation.org/funds/336-pennsylvania-agronomic-education-society-fund) to learn about the PAES fund to support college students interested in pursuing studies in crop and soil sciences.

Pennsylvania Agronomic Education Society Fund

### Supporting Students in the Crop and Soil Sciences

#### Story of Fund

This fund was established by the Pennsylvania Agronomic Education Society (PAES) to encourage more students to pursue a degree in the crop and soil sciences. The PAES is more than 200 professionals engaged in the agronomic sciences. Society members share an interest in staying abreast of the



Centre FOUNDATION

donate now

Make an Online Donation

Please use the form below to make an online donation to Centre Foundation.

Make a donation to the Foundation | Make a donation in honor or memory of someone

Donation:  \$50.00,  \$100.00,  \$250.00,  \$500.00

Honoree Information: Who would you like to honor? This information will appear on the acknowledgement.

Get In Touch: Name (required), Email (required), Your comment (required)

Click on "Donate Now" button for easy-to-complete online donation form. Contributions may be made as a one-time or monthly payment.



Step Two



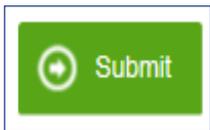
Step Three

Be sure "Pennsylvania Agronomic Education Society Fund" appears in the field asking "Would you like to apply this donation to a specific fund?"

Payment Plan:  One-time payment for the full amount,  Monthly (12 per year) ongoing payments.

Your Information: First Name, Last Name

Would you like to apply this donation to a specific fund? Pennsylvania Agronomic Education Soc



Click Submit to complete online credit card transaction.



Step Four

### Prefer to Donate via Check?

Check donations should be made payable to "Centre Foundation" with "PA Agro Fund" included in the memo. Please mail checks with contact information and any special acknowledgement information (i.e. Anonymous; In Memory/Honor of) to: Centre Foundation, 1377 Ridge Master Drive, State College, PA 16803

### Tax Deductible Contribution:

Receipt of your tax deductible contribution will be acknowledged and provided by the Centre Foundation.

### Corporate Matching:

Does your employer offer corporate matching? Contact the Centre Foundation at (814) 237-6229 to discuss how you can double your contribution with a corporate match.

### For More Information:

Contact Amy Bradford, PAES Secretary at 717-651-5920 or [abradford@pennag.com](mailto:abradford@pennag.com).

