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Special points of interest:

- Get your passports ready, annual meeting time is right around the corner. Check out all the details on page 2, you aren’t going to want to miss it — registration deadline is July 27th!

- Information on the new Borlaug Scholars program, including bios of our 2018 winners, program specifics, and how to get involved (p. 3–4)

- Who doesn’t love a new app? Read about the new “Verify” Android application, developed by Drs. Jesse Poland and Trevor Rife at Kansas State, which provides an option for increased capacity barcode processing (p. 5)

- Want to get involved with NAPB, we have a committee for you! See page 7 for details
2018 NAPB Annual Meeting

August 7—10, 2018
University of Guelph
Guelph, Ontario, Canada

Meeting highlights:

- Welcome reception featuring the local band, The GMOs.

- Pre-conference tour of the Vineland Research and Innovation Centre where the highly-skilled research team will demonstrate some of their leading edge projects and breeding programs including sweet potatoes, apples, tomatoes and roses. A guaranteed highlight of the tour will be the walk-through of Vineland’s Collaborative Greenhouse Technology Centre which houses the largest greenhouse, with a footprint of approximately one acre.

- Field Tours at the Elora Research Station, The University of Guelph’s main agricultural field research station. Tour stops will include soybean, cereals, dry bean, corn, and Russian dandelion breeding programs, the recently completed “big data” dairy barn, and the DNA Barcoding Biobus.

- Poster sessions and 1-minute poster introductions.

- Award talks by
  - Rob Duncan, 2017 NAPB early career scientist award winner, University of Manitoba
  - John Clark, 2017 NAPB Impact Award Winner, University of Arkansas
  - Robert Allan, 2017 NAPB Career Award Winner, USDA-ARS & Washington State University

- 2018 Awards

- NAPB Banquet catered by the University of Guelph’s award-winning chefs.

Find detailed program for the meeting here and register here.

Regular and Student registration includes: All sessions, opening reception, Elora Research Farm Tour and BBQ, Lunches and Banquet.

Daily registration includes: Talks and lunch only (Elora tour and Banquet not included)

Spousal registration includes: Opening reception, Elora Research Farm Tour and BBQ, Banquet and Lunches

Final Registration Deadline is July 27th
**Announcing**

2018 Class of NAPB Borlaug Scholars!

The NAPB Borlaug Scholarship is an exciting new travel scholarship and mentoring program. The Borlaug “Green Revolution” legacy of breeding better plants, promoting global food security, and mentoring young emerging scientist is well known and respected worldwide. This award builds on that strong foundation. This program assists and encourages both undergraduate and graduate students who are seeking careers in plant improvement. Students are selected through a national search to receive assistance with travel expenses to attend the society’s annual meetings. These students are also mentored by experienced leaders in the plant breeding profession in this program. The inaugural class of 2018 consists of 8 scholars from 5 states and 6 institutions:

**Adam Bolton** is a fourth-year PhD candidate in the Plant Breeding and Plant Genetics program at the University of Wisconsin-Madison where he studies the physiology and genetics of salt and heat tolerance in diverse carrot germplasm with the goal of developing new breeding material.

**Kevin Falk** is a PhD candidate studying soybean breeding at Iowa State under Dr. Danny Singh. He is conducting a genetic scan of the diversity of soybean root system architecture in the lab and field. For this project, Kevin developed research methods, deployed phenomics and machine learning approaches.

**Austin Dobbels** is a PhD candidate in the Department of Agronomy and Plant Genetics at the University of Minnesota. Austin is studying how unmanned aerial vehicles can be used for high-throughput phenotyping of soybean iron deficiency chlorosis.

**Elizabeth Prenger** is a Master’s student studying soybean breeding and genetics at the University of Georgia. Her research focuses on the genetics and improvement of soybean seed composition. She will graduate in December 2018 with a Master of Plant Breeding, Genetics, and Genomics.
2018 Class of NAPB Borlaug Scholars, cont.

**Katelyn Fritz** is an Iowa State University undergraduate student, double majoring in Agronomy and Global Resource Systems with focus areas in Plant Breeding and Biotechnology as well as Central America. After graduation Katelyn hopes to combine these degrees to work in the field of biofortification.

**Andrew Herr** is a junior majoring in Agronomy at Iowa State University. He is currently conducting undergraduate research that uses image analysis to extract corn root phenotypes for use in genomic prediction. He plans to attend graduate school to further expand his understanding of plant breeding.

**Dorothy Kirsch** is an undergraduate Biology major with senior status at Saint Mary's University of Minnesota in Winona, Minnesota. She is currently an intern at the DuPont Pioneer Research Station in Algona, IA.

**Tavin Schneider** is a senior at Montana State University, studying Plant Sciences with a Minor in Genetics. After graduation in December 2018, she intends to enter a Master's program for Plant or Crop Science, specializing in Plant Breeding and Genetics.

We need your ongoing support for this scholarship program to endure and benefit future generations. Here are important ways to volunteer your support:

**Volunteer** to serve on the new NAPB Borlaug Scholarship Committee (you must be an NAPB member).

**Call out for mentors:** We are seeking to build a database of possible mentors for this program. Please volunteer to be a NAPB Borlaug Scholar mentor by emailing donncummings1@gmail.com. We thank those who have already volunteered!

**Call out for individual and corporate donors:** Scholarships cost money! NAPB has partnered with the Agronomic Science Foundation (ASF) to set up a fund to support these new student awards. We need to build the fund now, to enable the program to continue to support this number and more students. Please donate today, online (by credit card) at: [https://www.a-s-f.org/napb-borlaug-scholars-donations](https://www.a-s-f.org/napb-borlaug-scholars-donations). Thank You for a generous donation!
Plant Breeding Success Story

New Android app, “Verify“, offers increased barcode processing power for plant breeding programs

Researchers at Kansas State University and Cornell University have developed and released an Android application called “Verify” that will help plant breeders by decreasing the amount of time and energy it takes to manage samples and seed stocks. Verify makes integrating and utilizing barcodes a simple process by combining an intuitive interface with a new barcode processing library. Verify imports a list of entries and utilizes the device camera or external hardware to scan a sample barcode and identify whether the scanned barcode is present in the imported list.

Verify is freely available through the Google Play store.

For more information on Verify and other PhenoApps please visit http://phenoapps.org/apps/
1. Where do you come from and what is your background?

I hail from rural upstate New York where my grandmother’s garden can be credited for my love of gardening. While planning my future, after graduating from a local college with an Associates degree in business, I recalled my passion for plants and knew that a career in plant science would inspire me daily. This led me to move to Tennessee in 2010 to pursue a B.S. degree in Horticulture Science and Production. Shortly after my first semester began, I met Dr. Fred Allen and was fortunate for the opportunity to work for the Agronomic State Variety Trials Program part-time while finishing my undergraduate degree.

2. What institution did you attend and what was the focus of your research?

In 2015 I graduated with a M.S. degree in plant breeding from the University of Tennessee under the guidance of Dr. Fred Allen. My thesis research focused on studying niger (Guizotia abyssinia). One objective of my research was to compare yield, phenotypic traits, and self-incompatibility within and among populations of niger. Another objective was to determine genetic variance, broad sense heritability, and gene effects of selected accessions and crosses through the analysis of generation means analysis.

3. What is your most recent position, and where do you see yourself in five years?

In 2016 I began working as Research Associate III in the Soybean Breeding program at the University of Tennessee for Dr. Vincent Pantalone. There I managed the molecular marker lab and assisted with field research involved in developing new inbred soybean lines. In 2017 I followed my husband’s career to Chicago, Illinois and just recently to Guelph, Ontario. In five years I hope to be settled into a plant breeding research position in industry.

4. What plant breeding challenges do you find most intriguing?

Feeding the world’s increasing population is a challenging reality we face today. This, coupled with the decreased availability of fresh water and rising temperatures, has inspired plant breeders around the world to play a part in the solution. From traditional plant breeding to the latest methods of biotechnology and molecular breeding, researchers are specializing in completely different areas of expertise, and yet our goals are one in the same.
Call to Get Involved

We invite you to become more involved in NAPB through participation on one of the following committees. Committee leadership consists of a Chair, Vice-Chair and Secretary who remain active through a 3-year rotation. We currently are seeking nominations for Secretary of each committee. If interested in either membership or nomination for Secretary, please contact a respective committee chair. Self-nominations are encouraged.

Advocacy Committee Chair - Julie Dawson (dawson@hort.wisc.edu)
The Advocacy Committee works to promote the value of plant breeding to wider audiences. This includes maintaining close communication with groups working on federal policy that may impact plant breeding, and coordinating with other scientific societies in allied fields. The advocacy selects and sponsors graduate student ambassadors each year to attend the Congressional Visits Day organized by ASA-CSSA-SSSA. We also communicate with USDA National program staff and other federal agencies that support plant breeding research and education.

Communications Committee Chair - Emily Combs Ziemke (emily.combs@pioneer.com)
The Communications Committee uses a variety of methods to provide information on NAPB and related activities of interest to members and prospective members. Communication committee officers and graduate student liaisons prepare quarterly newsletters, post updates on social media, and disseminate information on request from NAPB members. These activities raise committee members’ visibility profile among the membership and provide experience with current media platforms.

Education Committee Chair – Sarah Potts (smpotts@dow.com)
The Education Committee is looking for a Secretary for the upcoming year. This is a three-year commitment that would then advance to the Vice Chair, and then Chair position of the Committee. We are also looking for volunteers to serve as general members within the committee. The responsibilities of these volunteers will be to attend conference call monthly meetings of the Education Committee and to assist in various ways to accomplish our yearly goals. These goals include: organizing and implementing our yearly webinar series, improving our YouTube channel, increasing marketing of webinars and the YouTube channel to a wider audience, organizing the NAPB grad student poster competition, and student speaker selection for the annual conference.

Membership Committee Chair - Hannah Senior (hannah.senior@pbsinternational.com)
The Membership Committee is responsible for recruiting and retaining members for the NAPB. This is essential to ensure our members represent all plant breeders, and the membership fees generated play an important role in allowing the NAPB to carry out it’s mission. The membership committee works to find different ways to recruit members can provide committee members with an excellent overview of the plant breeding community, as well as allowing the development of marketing skills.
Call to Get Involved, cont.

Graduate Student Working Group Chair - Karla Huerta (kahuerta@ucdavis.edu)

The Graduate Student Working Group is a committee that advocates for Undergraduate and Graduate students’ interests in academia and the industry. We are formed by different student liaisons that assist other NAPB Committees. The committee oversees the organization of the graduate student activities in the NAPB Annual Conference, as well as assists other committees that require student involvement. We also advertise plant breeding events offered to our student community and share relevant information such as job postings, scientific meetings and fellowship opportunities. We are seeking for student volunteers to be involved in our Committee to help as student liaisons and a secretary.

Early Career Working Group Chair – Brian Gardunia (Brian.w.gardunia@monsanto.com) and Kari Hugie (klhugie@gmail.com)

The Early Career Working Group aims to help early career professionals successfully transition from students to experienced plant breeding professionals by providing mentorship, networking and related training opportunities. We are looking for volunteers to serve as committee officers and general members. Responsibilities include organizing networking events at the annual conference and implementing a yearly panel discussion / webinar series. These activities enhance membership quality for NAPB student and professional members alike.
Announcements

- Registration is open for CUCURBITACEAE 2018: Registration link Draft program link

- ASTA and NAPB Launch 2nd Annual “Better Seed, Better Life” Student Video Contest

  Graduate and undergraduate students pursuing agriculture disciplines are invited to participate in the second annual Better Seed, Better Life student video contest sponsored by the American Seed Trade Association (ASTA) and the National Association of Plant Breeders (NAPB).

  The 2018 contest theme is: “Rumor Has It.”

  Videos should help set the record straight on a common misconception or myth associated with the seed industry. This could include any aspect of the seed industry (from plant breeding, to seed treatments, gluten, organics, GMOs, big corporate, the role of seed in everyday life, etc.). Videos should incorporate “man on the street” style interviews along with your own original content.

  Video submissions are due August 31, 2018. Videos will be judged by an expert panel, and cash prizes will be awarded for winners. For more information, including video specifications and submission requirements, visit the contest webpage.

- The NAPB 2018 Annual Meeting is only one month away:

  See you in Guelph!!!

  Final Registration Deadline is July 27th
NAPB: Improving Plants to Improve Lives

Our Mission: The National Association of Plant Breeders strengthens plant breeding to promote food security, quality of life, and a sustainable future.

Our Vision: The NAPB works to help create a future in which 1) Strong public and private sectors work independently and together to deliver varieties and improved germplasm to society, 2) The value and importance of plant breeding to food security, quality of life, and a sustainable future are known and appreciated by the public, and 3) Plant breeding is viewed as dynamic, problem solving, and creative. The NAPB intends to become a recognized and valued advocate for plant breeding research and education, helping to guide and implement a cohesive national plant breeding agenda.

Stay in touch with NAPB!

Website: https://www.plantbreeding.org/

Have an idea for a future newsletter? Email the communication committee:

Chair: Emily Combs—Emily.Combs@Pioneer.com
Vice Chair: Virginia Sykes—vsykes@utk.edu
Secretary: Jodi Scheffler—Jodi.scheffler@ars.usda.gov
Grad. Student Liaisons: Ammani Kyanam—ammani_tamu_13@emil.tamu.edu
Zachary Jones—zgjones@ncsu.edu

Join us today!