



# NAPB Newsletter

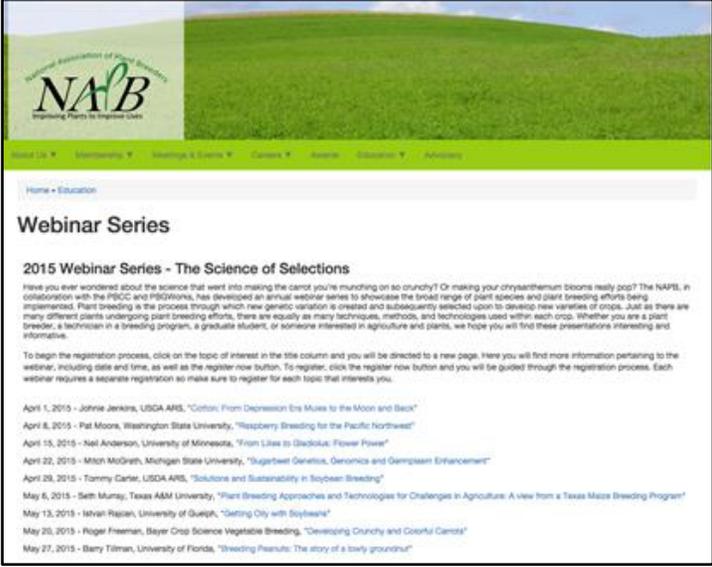
March/April 2015

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# Redesigned Website Announcement

We are excited to announce that the newly redesigned NAPB website will be public on Monday, April 6, 2015. The website URL will still be [www.plantbreeding.org](http://www.plantbreeding.org). There is a lot of exciting new content such as our 2014 and 2015 webinar series ([www.plantbreeding.org/content/webinar-series](http://www.plantbreeding.org/content/webinar-series)) and our monthly featured plant breeding program ([www.plantbreeding.org/programs](http://www.plantbreeding.org/programs)).



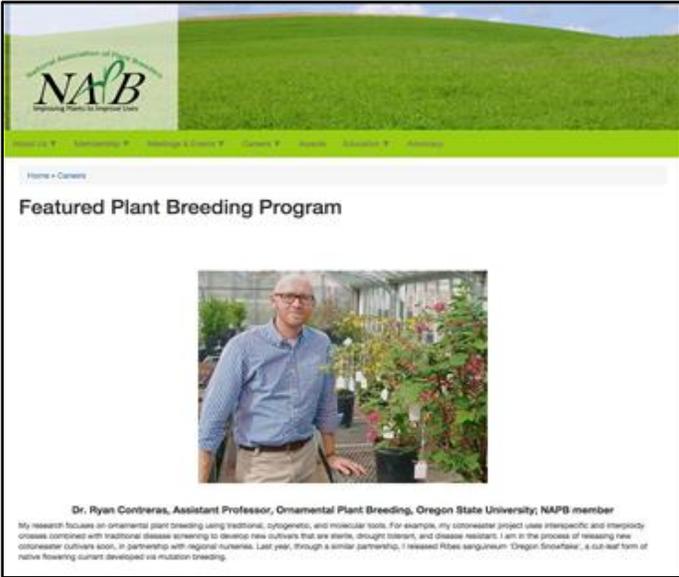
The screenshot shows the NAPB website header with the logo and navigation menu. The main content area is titled "Webinar Series" and features a section for the "2015 Webinar Series - The Science of Selections". Below the title is a paragraph explaining the purpose of the series and a list of webinar topics with dates and speakers.

**2015 Webinar Series - The Science of Selections**

Have you ever wondered about the science that went into making the carrot you're munching on so crunchy? Or making your chrysanthemum bloom really pop? The NAPB, in collaboration with the INCC and INDOGENA, has developed an annual webinar series to showcase the broad range of plant species and plant breeding efforts being implemented. Plant breeding is the process through which new genetic variation is created and subsequently selected upon to develop new varieties of crops. Just as there are many different plants undergoing plant breeding efforts, there are equally as many techniques, methods, and technologies used within each crop. Whether you are a plant breeder, a technician in a breeding program, a graduate student, or someone interested in agriculture and plants, we hope you will find these presentations interesting and informative.

To begin the registration process, click on the topic of interest in the title column and you will be directed to a new page. Here you will find more information pertaining to the webinar, including date and time, as well as the register now button. To register, click the register now button and you will be guided through the registration process. Each webinar requires a separate registration so make sure to register for each topic that interests you.

- April 1, 2015 - Johnie Jenkins, USDA ARS, "Carrot: From Depression Era Mules to the Moon and Back"
- April 8, 2015 - Pat Moore, Washington State University, "Raspberry Breeding for the Pacific Northwest"
- April 15, 2015 - Neil Anderson, University of Minnesota, "From Lilies to Gladiolus: Flower Power"
- April 22, 2015 - Mitch McGrath, Michigan State University, "Sugarbeet Genetics, Genomics and Germplasm Enhancement"
- April 29, 2015 - Tommy Carter, USDA ARS, "Solutions and Sustainability in Soybean Breeding"
- May 6, 2015 - Seth Murray, Texas A&M University, "Plant Breeding Approaches and Technologies for Challenges in Agriculture: A View from a Texas Maize Breeding Program"
- May 13, 2015 - Ishrat Rajani, University of Guelph, "Getting Oily with Soybeans"
- May 20, 2015 - Roger Freeman, Bayer Crop Science Vegetable Breeding, "Developing Crunchy and Colorful Carrots"
- May 27, 2015 - Barry Tillman, University of Florida, "Breeding Peanuts: The story of a bowl groundnut"



The screenshot shows the NAPB website header with the logo and navigation menu. The main content area is titled "Featured Plant Breeding Program" and features a photograph of Dr. Ryan Contreras standing in a greenhouse. Below the photo is a caption identifying him as an Assistant Professor of Ornamental Plant Breeding at Oregon State University and a NAPB member. A short paragraph describes his research focus on ornamental plant breeding using traditional, cytogenetic, and molecular tools.

**Featured Plant Breeding Program**



**Dr. Ryan Contreras, Assistant Professor, Ornamental Plant Breeding, Oregon State University; NAPB member**

My research focuses on ornamental plant breeding using traditional, cytogenetic, and molecular tools. For example, my ornamental project uses interspecific and intergeneric crosses combined with traditional disease screening to develop new cultivars that are sterile, drought tolerant, and disease resistant. I am in the process of releasing new ornamental cultivars soon, in partnership with regional nurseries. Last year, through a similar partnership, I released *Ribes sanguineum* 'Oregon Snowflake', a cut-flor' form of native flowering currant developed via mutation breeding.

## “The Science of Selections” Webinar Series

The National Association of Plant Breeders (NAPB) in partnership with the Plant Breeding Coordinating Committee (PBCC) and PBGWorks presents a new webinar series; The Science of Selections. For more information regarding this webinar series follow the link: <http://www.extension.org/pages/60426/>.

Next, scroll down until you see the section *Upcoming Webinars: NAPB Webinar Series 2015* and here you will find a list of all upcoming webinar topics. To begin the registration process, click on the topic of interest in the title column and you will be directed to a new page. Here you will find more information pertaining to the webinar, including date and time, as well as the *register now* button. To register, click the register now button and you will be guided through the registration process. Each webinar requires a separate registration so make sure to register for each topic that interests you. If you have any questions please contact Arron Carter at [ahcarter@wsu.edu](mailto:ahcarter@wsu.edu).

All webinars will take place on Wednesdays, at 2PM Eastern Time (1PM Central, 12PM Mountain, 11AM Pacific Time). The webinar is free and advanced registration is required.

Current Schedule:

April 1, 2015 [Cotton: From Depression Era Mules to the Moon and Back](#) Johnie Jenkins, USDA ARS

April 8, 2015 [Raspberry Breeding for the Pacific Northwest](#) Pat Moore, Washington State University

April 15, 2015 [From Lilies to Gladiolus: Flower Power](#) Neil Anderson, University of Minnesota

April 22, 2015 [Sugarbeet Genetics, Genomics and Germplasm Enhancement](#) Mitch McGrath, Michigan State University

April 29, 2015 [Solutions and Sustainability in Soybean Breeding](#) Tommy Carter, USDA ARS

May 6, 2015 [Plant Breeding Approaches and Technologies for Challenges in Agriculture: A view from a Texas Maize Breeding Program](#) Seth Murray, Texas A&M University

May 13, 2015 [Getting Oily with Soybeans](#) Istvan Rajcan, University of Guelph

May 20, 2015 [Developing Crunchy and Colorful Carrots](#) Roger Freeman, Bayer Crop Science Vegetable Breeding

May 27, 2015 [Breeding Peanuts: The story of a lowly groundnut](#) Barry Tillman, University of Florida

# USDA's Plant Breeding Roadmap

USDA's Plant Breeding Roadmap was announced last week by Under Secretary Woteki, and is posted on the web page of USDA's Office of the Chief Scientist (OCS): <http://www.usda.gov/wps/portal/usda/usdahome?navid=OCS>.

Direct link to the Roadmap document is <http://www.usda.gov/documents/usda-roadmap-plant-breeding.pdf>.

The Plant Breeding Roadmap was developed by the interagency USDA OCS Plant Breeding Working Group (PBWG), including ARS, NIFA, ERS, FS, and NRCS; and draws on extensive stakeholder input. USDA OCS appreciates stakeholder input and believes it raised important issues and information that they worked to include in the Roadmap.

As you know plant breeding is one of agriculture's most effective tools for adapting to new circumstances. It will be a key component in ensuring versatility and adaptability of agriculture systems, through plants bred for adaptation and productivity in conditions more variable than in the past, with many other characteristics such as pest resistances, cooking qualities, and nutritional value.

Most recently, staff at the White House Office of Science and Technology Policy (OSTP) expressed to USDA their interest in plant breeding. The Plant Breeding Roadmap provides a broad-based and thoughtful starting point for further conversations including those with OSTP.

USDA OCS thanks participants in the August, 2013, Plant Breeding Listening Session, other individuals, and organizations that provided input toward the development of the USDA Plant Breeding Roadmap and welcomes further ideas or suggestions. Please feel free to contact them.

## Plant Breeder Profiles

Thanks to the Graduate Student Working Group, the first featured plant breeder profile is on the website. 'Featured Plant Breeding Program' profiles NAPB member Dr. Ryan Contreras, Assistant Professor, Ornamental Plant Breeding, Oregon State University. Plant breeder profiles can be viewed at <http://wwwtest.plantbreeding.com/programs>. Suggest a plant breeder to highlight by contacting Long Ma, Graduate Student Working Group, at [maxxx814@umn.edu](mailto:maxxx814@umn.edu).

# Events and Opportunities

**The Khush Symposium: “Plant Breeding for Food Security: The Global Impact of Plant Genetics in Rice Production,”** a symposium honoring **Dr. Gurdev Khush** is being held May 28, 2015 at the University of California, Davis conference center. Registration is available at <http://ucanr.edu/survey/survey.cfm?surveynumber=15093> or contact Amanda Pietras at [ampietras@ucdavis.edu](mailto:ampietras@ucdavis.edu).

**CROPS 2015 International Conference on Improving Agriculture through Genomics** is being held May 18-21, 2015 in Huntsville, AL. The conference is co-sponsored HudsonAlpha Institute for Biotechnology and University of Georgia. Additional information is available at [www.CROPSconference.org](http://www.CROPSconference.org).

**33<sup>rd</sup> Annual Southern Forest Tree Improvement Conference** will take place June 8-11, 2015, in Hot Springs, AR. For more information please visit [www.sftic.org](http://www.sftic.org).

**2015 Summer Workshops in Plant Breeding** will be held May 18 -22 (Field Design and Analysis), June 1 – 5 (Marker Assisted Selection), and June 15 – 19 (Genome-wide Analysis and Selection) in Wooster, OH. For more information please visit [http://www.oardc.ohio-state.edu/tomato/Research/Summer\\_Workshops/plant\\_breeding\\_summer\\_workshops.html](http://www.oardc.ohio-state.edu/tomato/Research/Summer_Workshops/plant_breeding_summer_workshops.html) or contact David Francis ([francis.77@osu.edu](mailto:francis.77@osu.edu)).

**2015 Advanced Topics in Plant Breeding** will be held June 29 – 30 (Genomic Prediction in Plant Breeding), July 1-2 (Plant Breeding as an Engineering Discipline), and July 3-4 (Doubled Haploids in Plant Breeding) in Ames, IA. For more information please visit <http://agonline.iastate.edu/advanced-topics-plant-breeding-summer-institute-2015>

**2016 5<sup>th</sup> International Conference on Quantitative Genetics (ICQG)** will take place on June 12 – 17, 2016 in Madison, WI. For more information please contact Natalia de Leon ([ndeleongatti@wisc.edu](mailto:ndeleongatti@wisc.edu)).

## Join the Texas A&M Monthly Plant Breeding Bulletin

Texas A&M distributes a monthly Plant Breeding Bulletin (<http://soilcrop.tamu.edu/media/plant-breeding-bulletin/>). Contact Wayne Smith at [cwsmith@tamu.edu](mailto:cwsmith@tamu.edu) or LeAnn Hague at [Leann.hague@tamu.edu](mailto:Leann.hague@tamu.edu) if you would like to be added to the list serve.

**March Newsletter** from the Plant Breeding Center at University of California – Davis can be accessed here: [http://plantbreeding.ucdavis.edu/newsletters/2015\\_PBC\\_newsletters55107.pdf](http://plantbreeding.ucdavis.edu/newsletters/2015_PBC_newsletters55107.pdf)

If you have an upcoming event you would like to include in the NAPB newsletter, please send a description and link to any important information to Gregory Berger ([gberger06@gmail.com](mailto:gberger06@gmail.com)). Information will be included in upcoming newsletters.

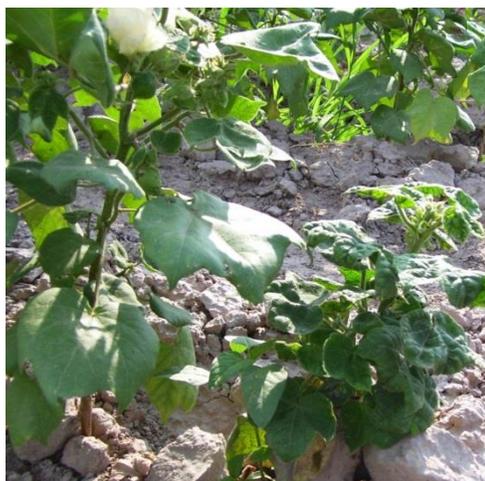
# Success Story

## Defending U. S. Cotton from Potential Cotton Leaf Curl Virus Invasion

Dr. Jodi Scheffler, USDA-ARS geneticist at the Jamie Whitten Delta States Research Center in Stoneville, MS, has served as project coordinator since 2010 of the USDA-ARS' Pakistan Cotton Productivity Enhancement Program. USDA has listed Cotton Leaf Curl Virus (CLCuV) as a critical threat to U.S. agriculture, and no resistance to the virus is found in the germplasm collection of Pakistan. In 2013, USDA gave the green light to begin proactive breeding against diseases that might have a chance to come to the U.S. Dr. Scheffler and her team discovered CLCuV resistance in 12 lines from the U.S. National Cotton Germplasm Collection. They are also working on diagnostic tests to help track the disease in countries where CLCuV is spreading. Seed companies have a keen interest in this work, and there are now third generation lines with resistance genes (R-genes). Dr. Scheffler estimates lines for adapted variety development and diagnostic tools will be ready for use in the U.S. in two years. This is a tremendous success, considering introgressing R-genes from wild accessions through traditional breeding is often characterized as a lengthy, cumbersome process. Tools will be available to effectively combat CLCuV when it reaches our shores. Jodi Scheffler always knew she wanted to be involved with breeding and growing plants. She has achieved positive and impactful goals in that arena, not just as a defensive and added-value specialist for the cotton industry, but also as a favorite mentor to students and young scientists involved in plant breeding.



Jodi Scheffler, USDA ARS Geneticist, Jamie Whitten Delta States Research Center, Stoneville, MS, with CLCuV Project Technician Kenyattia Anderson (L) and Lab Technician Pamela Johnson (R)



Field screen of segregating breeding population showing CLCuV resistant (L) cotton plant and CLCuV susceptible (R) cotton plant

Do you have a plant breeding success story that you would like to share? If so, please send a brief description or a link to Gregory Berger ([gberger06@gmail.com](mailto:gberger06@gmail.com)). Success stories will be shared in upcoming NAPB newsletters.

# **NAPB/PBCC 2015 Annual Meeting**

**NAPB/PBCC ANNUAL MEETING 27-30 July 2015, WSU Pullman, WA**

**“Identifying and utilizing genetic diversity”**

## **Pre-conference field tour**

Monday 27 July

Join us for an opportunity to tour the National Plant Germplasm Site (NPGS) at Central Ferry and meet with PNW NPGS representatives before heading to WSU-Prosser to visit local breeding programs: for apple scion, cherry scion and rootstock, alfalfa, dry bean, hop and potato, as well as affiliated programs such as the National Clean Plant Center, AgWeatherNet, and the Center for Precision & Automated Agricultural Systems. Participants will travel by bus from Pullman. Breakfast, lunch and refreshments provided.

**Pre-tour fee:** Students \$25, Professionals \$50

## **Conference fees:**

Students \$125, Professionals \$500

Late registration penalty (after 1 June) – Students \$50, Professionals \$100

## **Conference schedule**

The 2015 NAPB/PBCC conference will feature a keynote speech by Rex Bernardo (University of Minnesota), sessions focusing on ‘Exploiting genetic resources in public and private breeding programs’, ‘Plant breeding organization, policy, and funding’ and workshops on ‘Breeding for consumer product quality: successes and failures’ and ‘Diverse skills needed for a diverse plant breeding workforce’.

Graduate student mini-presentations, abstract competition winner presentations, and poster sessions will be a major feature of the program as in previous years. The conference includes a field trip to local WSU & ARS sites with breeding-related activities.

Social activities will include a Graduate student-led mixer with informal dinner featuring regional, identity-preserved products and live music as well as a banquet and awards night.

# NAPB 2015 Call for Award Nominations

The National Association of Plant Breeders (NAPB) is pleased to announce availability of three professional awards. Awardees will be recognized at our Annual Meeting on July 27-30 at Washington State University campus in Pullman, WA. Annual Meeting information can be found at <http://www.plantbreeding.org/annual-meeting-2015>

**EARLY CAREER AWARD** - Recognizes a young public or private sector scientist who is active in the plant breeding field. Applicants should exhibit the ability to establish strong research foundations (experimental techniques, novel ideas, publications, etc.), to interact with multidisciplinary teams, and to participate in professional societies relevant to their discipline. The nominee must have obtained their Ph.D. after December 31, 2005.

**LIFETIME ACHIEVEMENT AWARD** - Recognizes an individual who has given distinguished long-term service to the plant breeding discipline in areas such as breeding/genetics research and publication, education (graduate or undergraduate training), extension outreach, and regional, national, and/or international leadership.

**PLANT BREEDING IMPACT AWARD** - Recognizes an individual who has made significant advancements in the field of plant breeding, specifically in the area of applied variety and/or technology development. Public or private plant breeders whose improved germplasm or technological contributions have had a measurable impact on crop production are eligible to receive this award.

Nomination procedures and entry forms containing more detail are included with this announcement and on our website <http://www.plantbreeding.org/awards>. These awards are not based on the nature of employment (public, private, etc.) and the nominee does not have to be a member of the NAPB.

Award recipients will be recognized at the NAPB annual meeting the year of the award, where they will receive a plaque and cash award (if applicable). Furthermore, the awardees will be announced on the NAPB web site. In addition, awardees will be provided a reimbursed trip to the NAPB annual meeting the following year, where they will be expected to give a presentation.

Nominations are currently being accepted for 2015 and **the final deadline is May 17, 2015 (11:59 pm Central time)**. In addition, nomination packages that were submitted but not awarded will be considered for two subsequent years, provided that nominees remain eligible for the specific award category (Early Career Award nominees must be within specified dates of PhD). Nominators are encouraged to resubmit such nomination packages; letters of support can be used for up to three years. For inquiries, questions and submissions, please contact the Awards Panel Chairperson, Rita Mumm, 217-244-9497, [ritamumm@illinois.edu](mailto:ritamumm@illinois.edu). **Nomination packages can be submitted to Rita Mumm in pdf format through email.**

Note: Graduate student awards for presentations and posters will be organized and issued through the NAPB Education Subcommittee.

## Join NAPB TODAY!

Would you like to join and support the National Association of Plant Breeders? To join, please go to <http://www.plantbreeding.org/napb/index.htm>, scroll down to “How to join/ Information for new member” and follow the links. Remember that you DO NOT have to be a member of any other professional organization to join NAPB. The tri-societies, ASA-CSSA-SSSA, are handling our membership database and email list server under contract to NAPB.

Please direct comments and suggestions about the NAPB Newsletter to:

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