#### **National Association of Plant Breeders**

## **STRATEGIC PLAN, 2019 - 2023**

#### Mission, Values, Vision, and Objectives

Our Mission: Strengthen plant breeding to promote food security, quality of life, and a sustainable future.

## **Our Core Values:**

Honesty Integrity Education

Consensus Dedication Human dignity

Fairness Non-partisan Professionalism

Visionary

The National Association of Plant Breeders (NAPB) is a professional society composed of plant breeders, affiliated professionals, and students in federal, state, university, commercial and non-government organizations. The NAPB provides a forum for those actively engaged or affiliated with plant breeding in all sectors to exchange ideas and work for the common good. The Association strives to be a conduit of information about plant breeding to an array of stakeholders. Although the focus of NAPB efforts is in the U.S., plant breeding is a global enterprise; therefore, an important role for the Association is to form global collaborations and NAPB welcomes international members.

**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.

To achieve our mission and uphold our values, the NAPB seeks to obtain the following **objectives during 2019 - 2023**:

- 1. GRAND OBJECTIVE: develop NAPB as a world-class, self-sustaining, member-serving and public-serving scientific organization
- 2. Facilitate unified representation of plant breeders and plant breeding
- 3. Expand capacity for public plant breeding
- 4. Promote and support professional education of plant breeding
- 5. Increase public awareness and support of plant breeding

# 6. Support membership through operations and governance

**Objective 1**: GRAND OBJECTIVE: develop NAPB as a world-class, self-sustaining, member- serving and public-serving scientific organization

**Purpose**: To create continuity of activities; increase membership; maintain federal, state, and institutional contact so that NAPB has a voice in policy decisions at all levels

#### Goal-2019-2023

- 1. Establish a paid staff support person to handle daily and ongoing NAPB activities by 2023
  - a. Maintain calendar of events and insure that EC and appropriate committees are alerted in a timely fashion
  - b. Maintain continual oversight of monetary commitments and budgetary soundness
  - c. Assist Committees to improve membership, services, and activities

# **Strategies-2019-2023**

- 1. EC will document the needs and expectations for initial staffing position
  - a. establish exploratory committee by March 2020 to consider aspects such as:
    - i. full or part time position
    - ii. salary and fringes/perks
    - iii. responsibilities
    - iv. organizational expectations
- 2. EC will engage the broader Plant Breeding Community in fundraising and grant seeking to support the organization
- 3. EC will develop a business plan for NAPB considering:
  - a. long term commitment for staff positon
  - b. strategic plan for 1 year, 5 year, and 10 year expectations relative to staffing and growth of NAPB
- 4. The EC may utilize a standing Strategic Planning Committee or other structure in developing and implementing a written proposal pursuant to this grand objective

# Objective 2: —Facilitate Unified Representation of Plant Breeders and Plant Breeding

**Purpose**: Provide timely input and advocate for plant breeding to decision makers on local and national policies that impact plant breeding

# Goals-2019-2023

- 1. Identify existing and emerging key concerns and issues
- 2. Recommend advocacy action to be approved and taken by the NAPB leadership to further the impact of plant breeding in agricultural research and societies at large

- 3. Develop Position Papers (e.g., concise statements on the science and social impact of plant breeders) for distribution to key leaders at state and national levels; collaborative with Education Committee and leaders of Strategic Objective 5 (Increase Public Awareness and Support of Plant Breeding)
- 4. Collaborate with Plant Breeding Coordinating Committee (PBCC) through the NAPB leadership to insure that all plant breeders, public and private, have the tools to advocate for our profession
- 5. Collaborate with the American Seed Trade Association (ASTA) and/or charitable foundations and other aligned partners active in plant breeding in the private or public sector; investigate collaborations with other professional societies

# **Strategies-2019-2023**

- 1. Identify existing and emerging key concerns and issues
  - a. **Advocacy Committee** will meet each year at or immediately following the NAPB Annual Meeting and identify up to three (3) key concerns to address in the following 12 months
  - b. The **Advocacy Committee** will report on the progress of those three key concerns to the EC during the EC teleconference from time to time and in June of the following year
  - c. The EC and the **Advocacy Committee** will prepare a written report to be distributed to the membership at the annual meeting
- 2. Recommend advocacy action to be approved and taken by the NAPB EC
  - a. Develop action plans to implement advocacy plan in the agreed upon timelines
  - b. Advocacy Committee will solicit input from all leadership, i.e., all standing committees, and recommend key organizations and actions, e.g., Storm the Hill or Congressional Visits Day, that the EC should consider as a means to enhance the effectiveness and visibility of NAPB
  - c. Solicit ideas for joint advocacy projects from ASTA, private sector plant breeders, and public plant breeders
- 3. Develop Position Papers (e.g., concise statements on the science and social impact of plant breeding) for distribution to key leaders at state and national levels; NOTE: collaborative with **Education Committee** and leaders of Strategic Objective 5 (Increase Public Awareness and Support of Plant Breeding)
  - a. **Advocacy Committee** will determine topics for NAPB position statements/pagers to be distributed to decision makers at state and national levels
  - b. Advocacy Committee will solicit input from the Education Committee and others, especially those dealing with this Strategic Plan Objective 4 (Increase Public Awareness and Support of Plant Breeding) for appropriate position statements/brief one-pagers
    - i. This may include a **new commercial plant breeding committee** in NAPB, to be approved by EC and initiated in FY 2020
- 4. Collaborate with PBCC and others through the NAPB leadership to insure that all plant breeders, public and private, have the tools to advocate for our profession

- a. Collaborate with PBCC as appropriate for NAPB to develop joint position papers
- b. Implement/collaborate with PBCC as appropriate for NAPB on advocacy activities that PBCC cannot execute because of USDA/federal regulations
- c. Distribute Position Papers to all plant breeders through PBCC as appropriate to insure distribution beyond NAPB membership
- 5. Collaborate with ASTA and/or charitable foundations and other aligned partners active in plant breeding in the private or public sector; Investigate collaborations with other professional societies
  - a. Invite CSSA and American Society of Horticultural Sciences (ASHS) leadership to annual meetings
  - b. Seek liaison positions from NAPB on the boards of CSSA and ASHS, and other related societies
  - c. Maintain relationship with ASTA
  - d. Seek ways to provide information to philanthropic organizations and charitable organizations

## Measures of success

- Increased number of positive pieces about plant breeding in the media
- Increased participation in annual meetings by LGU and/or private industry leadership
- Expanded giving to the Borlaug Scholars fund
- Increase in requests for information about plant breeding by local and national leaders, including ASTA, public media, political leaders, University/College leadership
- Other measures of the value of plant breeding to society
  - o increased enrollment in plant breeding major/minor
  - o increase in number of "hits" of the NAPB website
  - o increase in "requests" for media responses

# Objective 3: Expand capacity for public plant breeding

**Purpose**: Advocate for increased and continued support for public plant breeding capacity in order to train future scientists who will develop improved plant genetics that will promote food security, quality of life, and a sustainable future

#### Goals-2019 - 2023

- 1. Determine best approaches for advocating for public plant breeding to state and federal governments
- 2. Aid the EC in relationships with decision makers and stakeholders to support plant breeding through financial support and/or support through advocacy partnerships

3. Create and advocate for best management practices at public institutions regarding intellectual property protection and division of royalty returns to increase financial and institutional support of plant breeding

## **Strategies-2019 - 2023**

- 1. Determine best approaches for advocating for public plant breeding to state and federal governments
  - a. Federal
    - i. Develop media packages to advocate for plant breeding at federal level
    - ii. Work independently as an organization
    - iii. Work with other advocacy groups such as
      - Crop Science Society of America (CSSA) and ASHS
      - ASTA
      - State Seed Trade Associations
      - Commodity publications such as Seed World and Farm Press
  - b. State governments
    - i. Develop media packages (ppt, NAPB news releases) that highlight public plant breeding for distribution across or state specific:
      - Develop appropriate list serves
        - SAE Directors
        - University Deans
        - Appropriate Department Heads and Associate Heads
        - University media directors
        - Home town newspapers of Borlaug Scholars-radio/TV stations
        - o State Capital newspapers-radio stations-TV stations
- 2. Assist the EC in developing relationships with decision makers and stakeholders to support plant breeding through financial support and/or support through advocacy partnerships
  - a. Assist EC in calendar of events that provide opportunities for educating the public relative to the value and contribution of plant breeding to the general health and wellbeing of citizens
    - i. Develop a system of alerts of opportunities at state and federal government levels such as
      - Storm the Hill
      - Congressional Visits Day
  - b. Work with ASTA, CSSA, ASHS, and others
- 3. Create and advocate for best management practices at public institutions regarding intellectual property protection and division of royalty returns to increase financial and institutional support of plant breeding
  - a. Develop NAPB talking points for public scientists to share with their administration
    - i. Collaborate with Plant Breeding Scientists in each collaborating state to develop data supporting public variety development and germplasm improvement at public institutions

#### Measures of success

- No net loss of public plant breeding positions
- Increase in plant breeding positions
- Increased public financial support for public plant breeding positions
- Creation of longer term funding for plant breeding at federal granting agencies
- Administrators are more informed about infrastructure support needed for successful plant breeding
  - o Recognition of plant breeding success in the promotion and tenure processes

# Objective 4: Promote and support professional education of plant breeding

**Purpose**: Provide guidance and support to-members involved in plant breeding education

## Goals-2019 - 2023

- 1. Strengthen plant breeding education for plant breeding professionals/educators
- 2. Provide continuing updates on plant breeding and supporting genetics for plant improvement to membership
- 3. Develop and implement private / public collaborations to attract and train plant breeders, including life-long learning for professional plant breeders
- 4. Develop or identify and recommend electronic or written material for university professors to use as supplemental material in formal Plant Breeding classes
- 5. Expand recognition of public and private plant breeding programs at annual meetings

# **Strategies-2019 – 2023**

- 1. Strengthen plant breeding education for plant breeding professionals/educators
  - a. Evaluate the scope, activities, and purpose of the NAPB Education Committee and determine if this committee's mission of classical student education should be extended to education activities for the general public, perhaps through collaboration with the Communication Committee
  - b. Determine if NAPB is interested in taking over hosting educational content from Xtension and whether outreach education falls under our scope
  - c. Answer whether we will just serve as a host for backlogs or develop new content, either would require a more intense IT presence
  - d. Expand mentorship participation for NAPB Borlaug Scholars program
  - e. Organize Grad Student Poster Competition to provide opportunities for students to practice science communication
- 2. Provide continuing updates on plant breeding and supporting genetics for plant improvement to membership
  - a. Webinars (Zoom currently available to all committees for webinar and meeting use)

- i. Work more diligently to advertise; put together a schedule prior to webinar series
- ii. Establish a listsery of individuals and organizations to email (PBGworks email list?) and invite to the webinars
- iii. Require registration prior to the webinar and send out reminders to attendees beforehand
- iv. End webinar with a survey link to get demographics
- b. Coordinate with NAPB webmaster to continually host our webinar content on the NAPB webpage (increase ease to find)
- c. Revamp YouTube site and increase branding
  - i. Recruit Grad Students to help manage (science communication experience); possibly one or two of the student liaisons
  - ii. Update landing page with NAPB logo, make YouTube presence clearly NAPB branded, including link to NAPB site
  - iii. Post ASTA video competition winner
  - iv. Revisit videos for removal of irrelevant content (conditional on a future NAPB staff member)
- 3. Develop and implement private / public collaborations to attract and train plant breeders, including life-long learning for professional plant breeders.
  - a. Support Soft Skills and communication workshops as part of NAPB annual meetings
  - b. Company sponsored Meet and Greet style days at Universities, etc.
  - c. Network with NAPB Commercial Breeders to recruit Borlaug Mentors and help to support the Borlaug Scholars Program
    - i. Endowment funding
    - ii. Encourage continued interaction between scholar and mentor throughout year
  - d. Explore-collaborate-create discussion opportunities leading to company internships for plant breeding M.S. and Ph.D. students
- 4. Develop or identify and recommend electronic or written material for university professors to use as supplemental material in formal Plant Breeding classes
  - a. Determine the most useful course of action for forwarding plant breeding education and recruitment material; Best Management Practices vs. Plant Breeding Career Awareness
  - b. Identify best practices for plant breeding education to include experiential learning as well as improved curriculum with increased focus on graduating students who are profession ready
  - c. Target raising awareness of plant breeding as a career path by creating an electronic pamphlet that describes-explains-defines plant breeding for distribution to plant biology majors, agriculture majors, etc., and actively work to disseminate materials to colleges
- 5. Expand recognition of public plant breeding programs at annual meetings
  - a. EC should use the "Friends of Plant Breeding" award to recognize persons who advocate for plant breeding (media for example)

b. EC should explore ways to highlight public breeding programs, e.g., specific invitations to LGU deans and directors

# **Measures of Success**

- Increase live attendance of webinars by 10% each year to reach a broader audience
- Grow YouTube Channel subscription by 5% yearly with innovative, relevant content
- Establish Continuing Ed Unit (CEU) certification for webinars for at least three of the yearly webinars
- A white paper on gold standard for plant breeding graduate degree experiences
- Promotional material advocating career opportunities to K12 students
- Co-host a biannual panel on establishment of private/public partnerships with the NAPB Early Career Working Group
- Work with PBCC representatives and Universities to promote best practices adherence
- Increased levels of financial support for plant breeding graduate students through public and private sources
- Increased number of plant breeding majors at the graduate level
- Increased number of majors or minors in plant breeding available at universities, especially within the Land Grant System

# Objective 5: Increase public awareness and support of plant breeding

**Purpose**: Advance public perception of the scope and value of plant breeding to the health and well-being of consumers and increase public interest in the value of plant breeders

#### Goals-2019-2023

- 1. Improve communications about NAPB with Land Grant Universities and other agricultural college and university administrators
- 2. Develop additional collaborations with American Seed Trade Association
- 3. Expand association with Seed World and Germination magazines
- 4. Expand association with CSSA and ASHS
- 5. Identify "lay public" media outlets and provide positive plant breeding stories and accomplishments
- 6. Develop K-12 lesson plans that introduce or strengthen interest in the genetics of food-feed-fiber-bioenergy-shelter-greenspace plants

# **Strategies-2019-2023**

- 1. Improve communications about NAPB with Land Grant Universities (LGU) and other agricultural college and university administrators
  - a. Develop a list of "plant improvement" department heads and deans
  - b. Distribute (paper and electronic) brochures about NAPB and the contributions of plant breeding to society
    - i. NAPB EC, appropriate standing committees, and ad hoc committees should encourage departments, experiment stations, and programs to

- "fund" such things as coffee breaks or other "advertisements" at the annual meeting
- ii. NAPB leadership will collaborate with PBCC to utilize state reps to expand college and university administrator's knowledge of plant breeding accomplishments and impact
- 2. Develop additional collaborations with ASTA
  - a. EC will send a representative to the ASTA annual meetings who will advocate for plant breeding.
  - b. An ASTA liaison who is an active in both ASTA and NAPB will actively advocate for NAPB with ASTA and will make regular reports to the EC
  - c. Invite the new Seed Science Foundation (SSF) to appoint a liaison to NAPB, who is thereby invited to attend annual meetings
  - d. Encourage ongoing participation by Seed Innovation and Protection Alliance (SIPA) in NAPB activities of mutual interest
  - e. The EC will continue to develop ongoing collaborations with ASTA Executive Director
- 3. Expand association with Seed World magazine
  - a. EC will continue to work with Seed World personnel in an effort to enhance the mutual benefit of Seed World relationship with NAPB as in previous years
  - b. EC will commission and pay for a mid-year article in Seed World that highlights or advocates for plant breeding and NAPB
- 4. Expand association with CSSA, ACSESS, ASF, and ASHS
  - a. Utilize ACSESS meeting services for managing all future NAPB Annual Meeting registration
  - b. Nominate NAPB members who are concurrently members of CSSA to serve on ASF board of trustees in order to maintain at least one active NAPB representative as often as possible
- 5. Identify appropriate "lay public" media outlets and provide positive plant breeding stories and accomplishments in the form of news releases, feature stories, pictures, videos, podcasts and other creative works
  - a. EC will work with Communications Committee within this goal
  - b. Invite key media contacts to NAPB Annual Meetings as appropriate
- 6. Develop K-12 lesson plans that introduce or strengthen interest in the genetics of food-feed-fiber-bioenergy-shelter-greenspace plants
  - a. Utilize organizations such as 4-H, First the Seed Foundation (ASTA), state seed trade associations, etc. and assist in the process of developing K-12 curricula
  - b. Draft a proposal for funding to develop a brief K-12 lesson plan for national distribution
  - c. Consider involving PBCC regional reps and members from both NAPB
     Education and Communication Committees; this would likely involve a special task force

#### Measures of success

• Increased number of positive pieces about plant breeding in the media

- Increased attendance/participation in annual meetings by LGU and/or private industry leadership
- Expanded giving to the Borlaug Scholars fund
- Other measures of increased public awareness of the value of plant breeding to society
  - o increased enrollment in plant breeding major/minor
  - o increase in number of "hits" of the NAPB website
  - o increase in "requests" for media responses

# Objective 6: Support membership through operations and governance

**Purpose**: Increase credibility and impact of NAPB through increased membership, diversity, participation, and scientific professionalism.

#### Goals 2019-2023

## Membership

- 1. Increase the number of paid memberships and the financial resources of the Association; explore diversification of membership types
- 2. Increase the perceived value of membership beyond attendance of the Annual Meeting Borlaug Scholars
  - 3. Continue development of the NAPB Borlaug Scholar Program as a means to increase and serve membership

# **Strategies 2019-2023**

#### Membership

- 1. Increase the number of paid memberships and the financial resources of the Association; Explore diversification of membership types
  - a. Increase the number of new members per year
    - i. Develop task forces to explore membership options for emeritus (post-retirement) and corporate members; leverage relationships with ASTA and SIPA
    - ii. Trial and quantify novel methods to recruit new members; document and maximize use of the most effective and affordable
    - iii. Insure that annual meetings are in different geographic regions
    - iv. Insure that Borlaug Scholars program recognizes students from across geographical regions
  - b. Increase retention of current members
    - i. Improve effectiveness of contact strategy as renewal date approaches and passes
    - ii. Better understand and act on reasons for non-renewal, (e.g., through survey)
    - iii. Reduce single year memberships and membership mix, (e.g., autorenewals and incentives for renewing)
    - iv. Increase paid undergraduate student memberships from 0 in 2018 to 50 by 2023

- v. Increase international members
- 2. Increase the perceived value of membership beyond attendance of the Annual Meeting
  - a. Actively promote and encourage volunteerism for committees, task force groups, and other leadership roles
  - b. Develop special recognition of outstanding service to the NAPB's mission and organization, longstanding membership, etc.

## **Borlaug Scholars**

- 3. Continue development of the NAPB Borlaug Scholar Program as a means to increase and serve membership
  - a. Increase number of scholarships awarded from eight in 2018 to 20 in 2023; average at least two additional scholarships per year; focus on undergraduates initially
  - b. Increase number of members donating annually to the Borlaug Scholars Fund by 200% over 2018 numbers and increase average donation amount
  - c. Increase institutional donors to the Borlaug Scholarship Fund by 200% over 2018; create levels and programs for institutional donors (Diamond, Platinum, Gold, Silver, etc.) without competing with sponsorship and/or other organization goals
  - d. Promote NAPB Borlaug Scholars program to the plant breeding community and the general public as part of NAPB outreach efforts
  - e. Upgrade the NAPB Borlaug Scholars program users' experience on the NAPB and ASF websites
  - f. Grow the pool of NAPB mentors and selection committee members as number of scholarships awarded grows; engage **Early Career Working Group**; use mentoring program as incentive for retired plant breeders to remain NAPB members
  - g. Create logo and grow brand awareness for NAPB Borlaug Scholarships
  - h. Grow our presence at partner trade shows and expos (e.g., CSSA; ASTA), in supportive media outlets (e.g., *Seed World* and *Germination*, Issues, Inc.), where opportunities to partner are greatest, and other organizations

#### **Measures of Success**

## Membership

- Increased membership from 435 in Aug 2018 to 650 (up 150%) by Aug 2023 growing revenue from membership fees from \$28,500 to \$61,750
- Corporate membership and participation in NAPB is enhanced, emeritus members are actively recruited and recognized
- Single year memberships are reduced and membership continuity over years is the norm for an increasing portion of our memberships
- An increase in internationally located members
- Member user experience is improved when interacting online with NAPB website
- A 50% growth in annual meeting attendance, from approximately 270 to 400 by 2023
- Meeting Aspirations, e.g.,
  - a. Meeting theme for promotional purposes
  - b. More than one meeting per year

- c. Regional or country-specific mid-year meetings
- Recommendations and guidelines established to guide Annual Meeting Organizing Committees
- Annual Meeting Planning Guide developed

## **Borlaug Scholars**

- The NAPB Borlaug Scholars ASF Fund balance is increasing and sustainably supports the number of planned scholarships
- NAPB Borlaug Scholarships are widely recognized and prized by students and the plant science community

# Accomplishments during previous strategic plan, 2014 - 2019

- Exchange, Intellectual Property Rights, and Revenue Return to Sustain Public Cultivar Development"; <a href="https://dl.sciencesocieties.org/publications/cs/abstracts/58/2/469">https://dl.sciencesocieties.org/publications/cs/abstracts/58/2/469</a>
- Report on "Intellectual Property Rights and Public Plant Breeding Recommendations, and proceedings of a conference on best practices for intellectual property protection of publically developed plant germplasm" based on a summit prior to the 2016 NAPB/PBCC meeting compiled and edited by William F. Tracy, Julie C. Dawson, Virginia M. Moore, and Jillene Fisch, College of Agricultural and Life Sciences, University of Wisconsin-Madison (<a href="http://host.cals.wisc.edu/agronomy/wp-content/uploads/sites/16/2016/05/Proceedings-IPR-Final.pdf">http://host.cals.wisc.edu/agronomy/wp-content/uploads/sites/16/2016/05/Proceedings-IPR-Final.pdf</a>)
- NAPB has joined with other scientific organizations in advocating for additional funding for Ag research, including NPGS.
- ASTA led series of meetings with NAPB, PBCC leadership and representative of NGOs and Congress on building a coalition to expand the circle of support for ag research, animal and plant genetic resources
- Established a fee based membership business plan enabling development of a robust member database
- Webinar Series
  - o Enhanced plant breeding knowledge for both students and professionals
  - Covered both technical and soft skills topics
  - o Generally attracted 30-50 people live, with an additional viewership of 20 views/month on our YouTube channel
  - Open to all, not a "members-only" event
- YouTube Channel
  - Over 3,000 subscribers, this is where we get the highest percentage of non-NAPB viewership
  - o Some videos have 20,000+ views, representing a wide viewer base
  - o Great opportunity for public outreach. Opportunity to increase viewership by editing some videos or promoting shorter videos to reduce viewing time commitment.
- Oral Speaker Selection
  - o Selected speakers for student presentations at yearly conference
  - o Gave students opportunity to hone science communication skills
- Poster Competition
  - o Student opportunity to practice both verbal and written science communication skills

- Recognize students with superior technical knowledge, critical thinking, and presentation skills.
- Established closer ties with
  - o ASTA
  - Seed World
- Held annual meeting outside of United States
- Collected and archived organizational documents in paper and electronic formats
- Promoted the National Association of Plant Breeders at the ASA/CSSA/SSSA annual international meetings
- Promoted the National Association of Plant Breeders at the annual American Seed Trade Association meetings
- Developed collegial and professional relationship with ACSESS
- Solidified annual meeting locations through 2022
- Represented at two Congressional briefings for Senate and House staff. Sponsored by the National Coalition for Food and Agricultural Research (National C-FAR) and moderated by Juli Obudzinski, a senior policy specialist with the National Sustainable Agriculture Coalition. <a href="http://sustainableagriculture.net/blog/plant-breeding-briefing/">http://sustainableagriculture.net/blog/plant-breeding-briefing/</a>. Bill Tracey's testimony: [1] the number of researchers that focus on plant breeding at public universities has fallen more than 30 percent in the last 20 years, with estimates that public breeding capacity has diminished by as much as a half over the past 50 years; [2] publicly funded plant breeding programs allows researchers more independence to complete longer term and riskier projects, work directly with underserved local markets and minor crops; [3] increase food security by using exotic germplasm, and respond to emerging threats; and [4] The loss of public plant breeding programs is largely a consequence of decreasing state support for land grant universities.
- Represented by Wayne Smith at meeting convened in Washington DC by leadership of the National Plant Germplasm System to provide ideas on gaining additional federal support for genetic diversity conservation.
- Shelton, A.C., and W. F. Tracey 2017. Cultivar Development in the U.S. Public Sector https://dl.sciencesocieties.org/publications/cs/pdfs/57/4/1823?search-result=1
- Sylak-Glassman et al., 2016. Examination of Plant Breeding at U.S. Academic Institutions and Private Companies in 2015. IDA Paper P-5331 <a href="https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/2016/P-5331.pdf">https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/2016/P-5331.pdf</a>
- Sustaining the Future of Plant Breeding: The Critical Role of the USDA-ARS National Plant Germplasm System.' P.F. Byrne, G.M. Volk, C. Gardner, M. A. Gore, P.W. Simon, and S. Smith. Manuscript submitted to Crop Science, 5/19/17.
- Established the NAPB Borlaug Scholarship Fund with ASF to support 8 students travel awards to attend the NAPB Annual Meetings in 2018
- Initiated recruitment of undergraduate student members for the first time in 2018.
- Established a student mentoring program for undergraduate, graduate and underrepresented minority students