

**National Plant Germplasm Coordinating Committee**  
**Beltsville, MD**  
**June 13, 2019**

**NOTES**

**Attendees:**

Peter Bretting	USDA/ARS-ONP	Gan-Yuan Zhong	USDA/ARS-Ithaca
Larry Chandler	USDA/ARS-Ft. Collins	Jeff Jacobsen	NCRA Executive Director
Joe Coletti	NCRA	Jane DeMarchi	ASTA
Ksenija Gasic	Clemson University, PBCC	Tim Rinehart	USDA/ARS-ONP
Randi Johnson	USDA/NIFA	Roy Scott	USDA/ARS-ONP
Ed Kaleikau	USDA/NIFA	Paul Zankowski	USDA Office of the Secretary
Jan Nyrop	NERA	Robert Stougaard	SAAESD
Eric Young	SAAESD Executive Director		

**Participating remotely:**

Pat Byrne	Colorado State University	Michele Esch	NGRAC Executive Director
Chet Boruff	AOSCA		

1. Welcome and Remarks from ARS Administration – Steve Kappes, Associate Administrator of National Programs
  - Plant germplasm is one of ARS’ top priorities
  - NPGS has been successful over 70 years, how do we sustain effort in future is a very important question
  - ARS is working to ensure this sustainability
  
2. ARS and NPGS Issues and Discussion – Peter Bretting (see [powerpoint](#) for details)
  - Number of accessions in NPGS is now ~ 600,000
  - Major growth has been in genetic stocks, horticultural crops, and wild relatives
  - Distribution in 2018 was ~ 300,000 units
  - ~ 30% of the distribution was international, remainder in the US, largest domestic distribution is to public universities
  - Total NPGS budget has remained flat at ~ \$44,000,000 during the last few years, the Land-grant universities contribute ~\$1,600,000 from Multistate Hatch (3.6%), plus substantial in-kind support from the universities and state agricultural experiment stations that host regional genebanks
  - Actual purchasing power of the budget is a little under \$40 Million (in 2012 \$)
  - ARS FY’19 budget increases specifically for:
    - Coffee - \$1.9 Million at Hilo, HI; Mayagüez, Puerto Rico; Beltsville, MD; and Ft. Collins, CO
    - Citrus – \$1.0 Million at Riverside, CA and Ft. Collins
    - Hemp – \$0.5 Million likely at Geneva, NY
  - PVP’s will be issued in the near future for hemp varieties

- 2018 Farm Bill directs ARS to develop a strategic plan for the future sustainability of NPGS
  - Some aspects of this plan will include:
    - Assessment of the NPGS current status
    - Needs assessment
    - How the backlog of characterization and maintenance of existing accessions will be addressed
    - Determine what additional resources will be needed in the future
  - Detail of plan will be at genebank level to make it workable and because Congress usually directs funding according to research locations.
  - Last few increases in NPGS budget has been targeted to germplasm of specific crops/commodities, The most recent FY when a President's budget proposal included a request for additional NPGS funding was around 2012-14
  - One significant factor is lack of general understanding of value and impact of NPGS, even within the AES, USDA, and some key decision-makers.
3. PGO, Regional Plant Introduction Stations, and NRSP-6 Issues and Discussion – Gan-Yuan Zhong (see [powerpoint](#) for details)
- Question – how can NRSP6 maintain its funding? Maybe NIFA could add some funding, but competitive mechanism is probably not appropriate for long-term genebank work
  - There is a targeted potato program in the NIFA budget that NRSP 6 may be eligible for requesting funding.
4. Comments from ASTA Liaison – Jane DeMarchi (for Tim Cupka), VP for Government and Regulatory Affairs
- ASTA has been working for many years to increase NPGS budget without much success
  - Couple years ago ASTA started an impact campaign to raise awareness of the NPGS' importance to US agriculture and the public good
  - This campaign resulted in the Farm Bill language directing ARS to conduct a future needs assessment and develop a strategic plan with future budget needs identified
  - Congress has great interest in what public cultivars are being developed by public breeding programs
  - Educating the general public about gene editing is a high priority for ASTA and they have a communication effort on its benefits and impacts
  - Need help from NPGS users and the grower community about documenting impacts where accessions directly contributed
  - A specific priority for the Germplasm Enhancement of Maize (GEM) Project resulted in a proposed \$1 M increase in House FY 20 budget
5. NIFA and AFRI Issues and Discussion – Ed Kaleikau and Randi Johnson (see [handout](#) for details)
- NIFA and ERS will be moving to Kansas City over the next few months
  - With the move, current priorities for NIFA are:

- Move grant money out to awardees
  - Respond to Congress and President
  - Prepare for move and transition to new location
  - Expect only ~ 200 out of 350 employees will actually move
  - Current programs related to plant germplasm and breeding are described in handout
  - There is a possibility that NRSP6 could qualify for some of the potato special research funds
    - Jeff Jacobsen and Eric Young will follow up on this possibility with Bill Barker, NRSP6 AA
  - New grant program for later stages of cultivar development
    - Can help with activities that foundation seed organizations used to do, such as regional trials and seed increases
    - This new program is a departure from usual basic innovative research being funded
    - This type of funding is greatly needed, but should be long term and multistate
6. National Genetics Resource Advisory Council Update – Michele Esch, Executive Director, NGRA (see [powerpoint](#) for details)
- NGRAC was reconstituted as a subcommittee of the NAREEE Board
  - 2018 Farm Bill added the following to their charge:
    - Assess existing investments in plant, animal, and microbe germplasm collections
    - Identify research gaps related to germplasm collections
    - Determine status of commercialization of federally funded cultivars
  - Also added 4 new positions on committee to represent public cultivar and animal breeding
  - Currently 9 out of 13 positions are vacant, working on filling these and have received a good pool of nominations
  - Council should also advise USDA on training and resource needs for future breeding challenges, and on appropriate funding levels for public cultivar development
7. Discussion on Future Funding Mechanisms for NPGS – Jan Nyrop
- Issue is really NPGS sustainability
  - Germplasm is very important national resource for agriculture and other aspects of the public good
  - ARS currently funds the bulk of germplasm collections and related work, approximately 95%
  - NIFA, through Land-grant University off-the-top Multistate Hatch, funds a small but vital part of the overall NPGS
  - Two of the primary issues in the Northeast region with the current shared funding mechanism are:
    - Sustaining Land-grant University funding from Multistate Hatch (part of a larger issue with funding from off-the-top MRF)
    - Administrative structure of Land-grant University and ARS scientists working together and supervising employees of the partner institution/agency
  - Are these the key issues in other regions?

- For S-9, the only administrative issue is % of salary for retirement is different, so University of Georgia is picking up difference for University of Georgia employees supported by the S-9 Regional Research Project.
  - A new organizational structure and Cornell supervision guidelines have generally resolved the past problem at NE 9 with ARS supervising Cornell employees, but it could come up again in the future
  - ARS policy is that its employees can guide the technical aspects of joint ARS-university work, but not anything related to management of university budgets. Guidance directs them to make sure they're working on research related to ARS projects and that the work connects directly with an active ARS project
  - Whenever ARS agreements are renewed its made very clear which entity is responsible for which employees and related expenses
  - Is funding mechanism a concern?
    - South has no problem using OTT funds for S 9
    - North Central does not have concern about funding mechanism for regional genebank
    - Northeast has concerns about how NE 9 is funded, but not about its importance
  - Are there other funding sources that are available to help?
  - Better communication about the impact and importance of the regional genebanks is critical to find other funding sources
  - Peter Bretting is willing to deliver presentations at directors' meetings on NPGS if invited
  - National Plant Germplasm Coordinating Committee should help with communicating these impacts by working with ARS, ASTA, and other interested entities, both public and private
8. Comments from AOSCA Liaison — Chet Boruff, AOSCA Executive Director
- 100<sup>th</sup> Anniversary of AOSCA will be celebrated at the annual meeting in Chicago in two weeks
  - Hemp standards will be discussed at meeting and a variety review board will be formed
  - Working on standards for hybridized barley and wheat
  - Working on how to use DNA and genetic standards for certification in a standardized manner
  - Certification of gene edited varieties will also be discussed
9. Plant Genebank Training Workshop and PG Training Needs Survey Discussion – Pat Byrne, Colorado State University (see [powerpoint](#) for details)
- See the Genebank Training [summary](#) and Crop Science [publication](#) for extensive detail on progress so far
  - Pat, Gayle Volk, and collaborators have submitted a training grant proposal to NIFA to fund this effort further.
10. Comments from PBCC Liaison – Ksenija Gasic, Clemson University (see [powerpoint](#) for details)

- Current project objectives are:
  - Collect, analyze, and disseminate information about the U.S. plant breeding effort in both public and private sectors
  - Promote the conservation, characterization, and utilization of plant genetic resources and access to them
  - Identify Best Management Practices for public sector IP protection to encourage the creation/distribution of crops
  - Optimize opportunities for public-private collaboration in plant breeding research and education, including continuing education for plant breeders
  - Foster communication among public plant breeders and federal agencies on policy issues, including alerts to threats to agricultural security that are relevant to plant breeding
- Completed a survey of public plant breeding programs to document current US capacity
  - Results will be published soon
- Do consumers think that flavor and nutrition have been “bred out of” current cultivars? Do we need to document how old varieties are used in breeding now? Are there things breeders can do to help change this perception?
- Key is to communicate with public about how flavor and nutrition are considered in breeding
- Is the number of plant breeders trained increasing? Hard to determine, but there still seem to be more jobs than graduates.