

# PGOC, NRSP-6, and Regional Plant Introduction Stations Update

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# Plant Germplasm Operations Committee

June 7, 2012, Spokane, WA

- Joint meeting with 4<sup>th</sup> Curators workshop
- GRIN-Global discussion
  - Individual questions during poster session
  - Evening workshop during Curators meeting
  - PGOC presentation and discussion
- International cooperators
  - Mexico: New center for genetic resources completed May 2011; 20,000 accessions; report on molecular service lab
  - Brazil: Summary of scientific exchanges between US and Brazil via LabEx.

# Plant Germplasm Operations Committee

- Discussed NP301 review cycle of 5 year project plans. Project plans currently being written.
- PGOOC Subcommittees
  - Subcommittee established on updating NPGS Procedures manual
  - Subcommittee reports on Acquisition and Distribution, GRIN molecular markers, Updating NPGS brochure, Georeferencing, Crop wild relatives, GMOs
  - Medicinal and non-research requests subcommittees completed their charge and were disbanded.

# Plant Germplasm Operations Committee

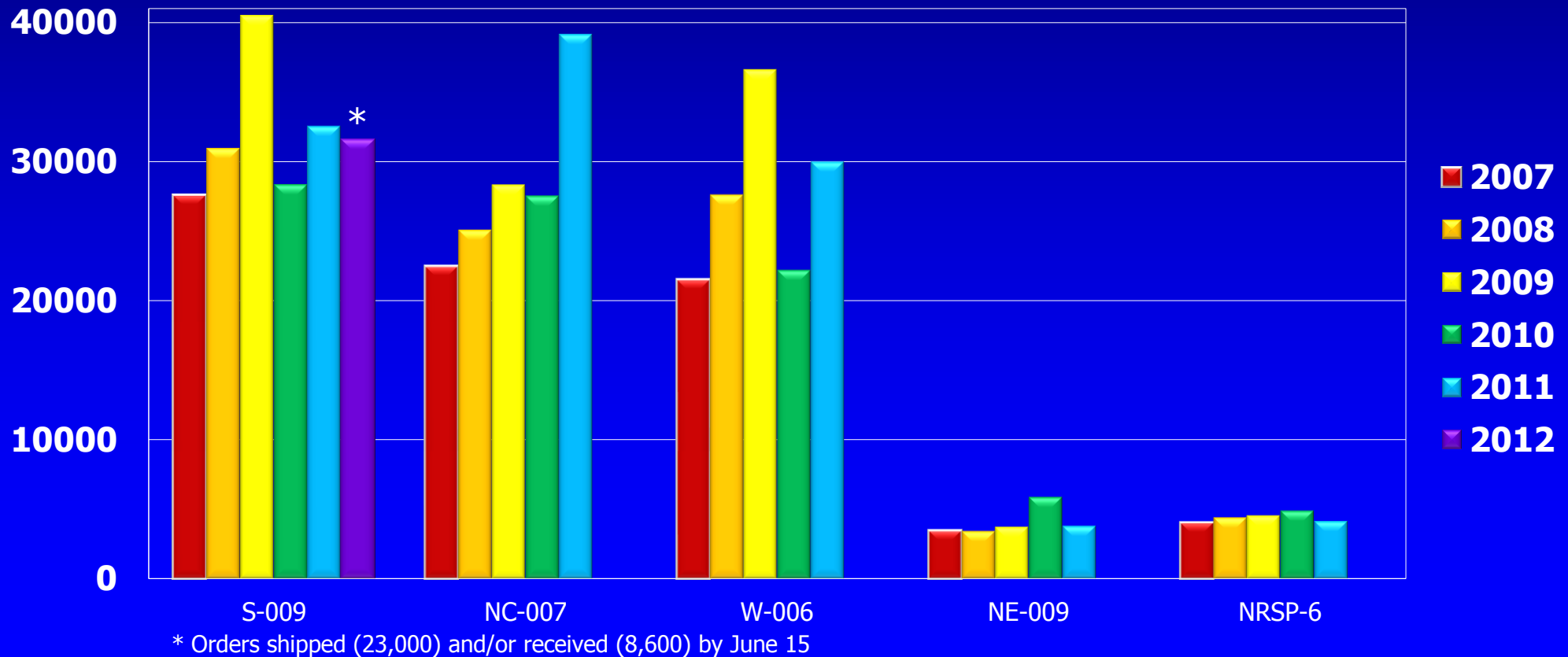
- Phytosanitary certificates
  - Cost went up from \$23 in 2008 to \$61 in 2012
  - Plant Exchange Office had been funding certificates for several locations, but no longer has the money to continue funding certificates for international distributions
  - Several locations have transferred funds to PEO during past two years
  - Motion passed after much discussion:
    - Beginning in F2014 for accessions shipped through Beltsville, ask international requestors to consider paying phytosanitary fees while making concessions for developing countries.*
  - Fees for phytosanitary certificates paid directly to APHIS

# Plant Germplasm Operations Committee

- Future PGOC meetings
  - No meeting in 2013 (30% federal travel reduction)
  - 2014 meeting
    - National Clonal Germplasm Repository for Fruit and Nut Crops, Davis, CA
    - Joint PGOC meeting with 5<sup>th</sup> Curators workshop

# Distributions

- Over 1.12 million accessions and genetic stocks have been distributed in last 5 years by NPGS



# NRSP-6

- Collected *Solanum* sp. in AZ, NM, and west TX
  - Found new sites for *S. jamesii* in NM and *S. fendleri* and *S. jamesii* in the Davis Mountains of west TX. Added 32 new accessions for the genebank.
- With Kemin Industries (IA), nearly doubled the concentration of an anti-appetite enzyme in potato tubers.
- With ARS (WA), selected yellow-fleshed clones to make a processed product not dependent on high-acrylamide frying conditions for acceptable color.

# NE-009

- In cooperation with NC State, evaluated tomato core set for numerous tomato flavor traits.
- Added 140 *Malus sieversii* accessions from Kazakhstan and distributed OP seeds from these accessions to U.S. and European breeders.
  - Evaluated for resistance to major apple diseases and various fruit traits
- Added fruit digital images and ploidy level of apple accessions to GRIN.
- Indexed all grape accessions for 10 major grape viruses.



# NC-007

- Distributed large orders of maize inbreds for evaluation, sequencing, and association mapping studies; Brassica for genetic mapping projects; and Amaranthus for trait exploration.
- In collaboration with NC, MO, and NY ARS researchers, phenotyped 2,800 maize inbred lines in project to phenotype and genotype maize inbred collection.
- Worked with DBMU on development of Curator Tool of GRIN-Global.

# W-006

- Acquired over 2,000 native plant accessions from Seeds of Success project with BLM.
- Distributed seeds to requestors from all 50 states in 2011.
- Surveyed alfalfa on roadsides in genetically-engineered alfalfa production areas and found 7-15% of roadside populations had Roundup Ready transgene.
  - Measures implemented to prevent transgene contamination of alfalfa germplasm during regeneration.

# S-009

- Completed installation of 4C cold storage room (21 x 30') in new building addition. Existing 4C room will be converted to -18C to enable bulk seed of entire collection to be housed in -18C.
- Characterized entire U.S. collections including:
  - Fatty acid content in castor bean and sesame
  - Seed oil content in watermelon
  - Ploidy level in St. Augustine and seashore paspalum
- All S-009 reports and minutes since 1949 are posted online as searchable PDF files ([www.ars.usda.gov/Main/docs.htm?docid=9592](http://www.ars.usda.gov/Main/docs.htm?docid=9592))

Seed processing building  
at Griffin prior to addition



New addition prior to cold room



Cold room installed



Moveable storage shelves



# S-009

Selected as the Southern Region Nominee for 2012  
National Excellence in Multistate Research Award

