

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

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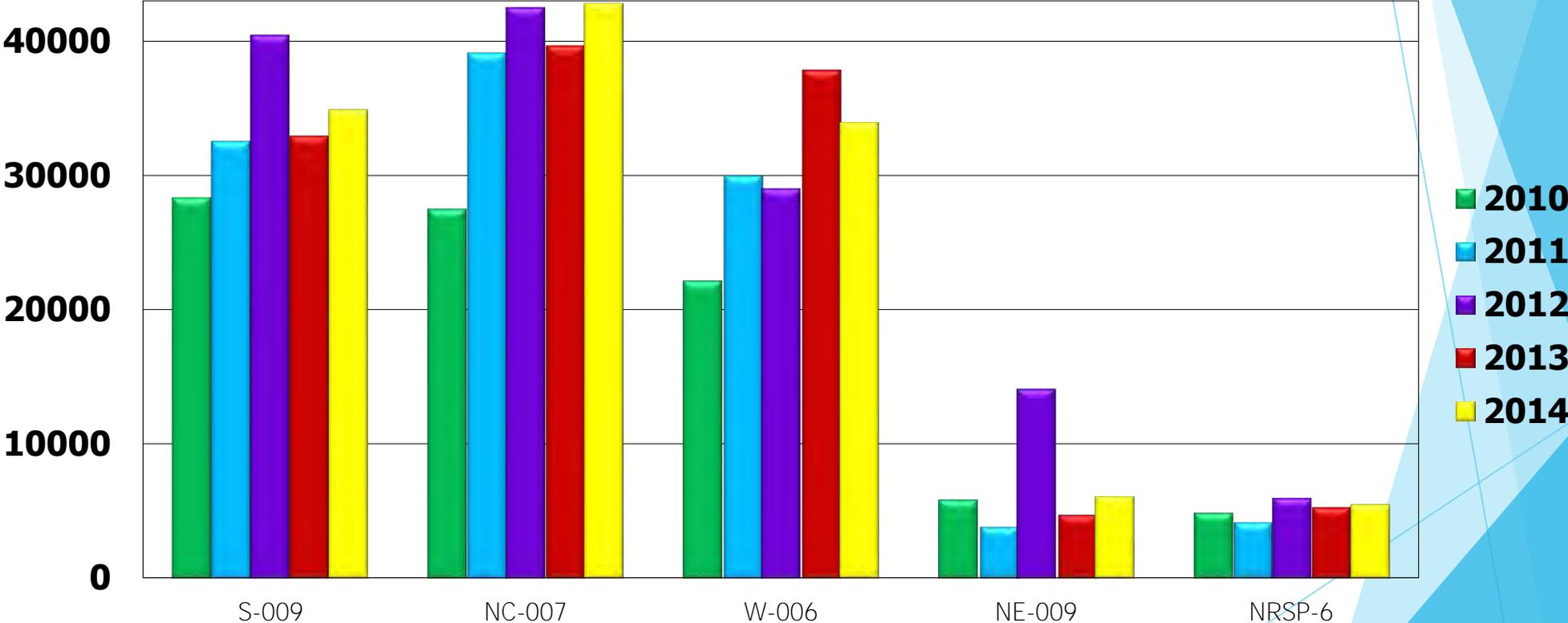
# Plant Germplasm Operations Committee

- About 50 attendees participated in the 2014 PGOC meeting October 28-31 at Davis, California, including international visitors from Canada, CIMMYT, China, and Colombia.
- Reports from ONP and various NPGS functional groups
  - Office of National Programs Report – Peter Bretting; NGRL, CGC, and PEO update – Gary Kinard; NCGRP update- Harvey Blackburn, Stephanie Greene, and Christina Walters; ; PGPRU update – Chris Walters; GRIN Global update – GRIN Global team.
- Reports and Discussions:
  - NPGS Regional Plant introduction Station Updates;**
  - Critical and Emerging Issue:** NPGS order processing challenges; Cat. 4 promotion; better outreach and public awareness efforts; impact of collection; guidelines for decommissioning NPGS collection; proprietary, genetically enhanced, x-PVP and other materials in the NPGS genebank;
  - Subcommittee Reports:** NPGS Special Achievement Award; Acquisitions & Distributions; Crop Wild Relatives; GIS and Georeferencing; Molecular Markers in GRIN; NPGS Operations Manual; Plant Exploration/Exchange Programs; **Updates on “Seeds for Our Future” brochure; and** Phytosanitary and Shipping.
- Next PGOC Meeting and Curator Workshop will take place in fiscal year 2016 in Fort Collins, CO.

# US Regional Plant Introduction Station Functions

- ▶ Acquire, conserve and distribute plant genetic diversity and associated information
- ▶ Encourage use of germplasm (User-focused)
- ▶ Conduct research to improve genetic resource management programs
- ▶ Evaluate and characterize germplasm to facilitate targeted research objectives
- ▶ Prebreeding activities to facilitate utilization

# Distributions



# Potato Genebank (NRSP-6)

- Preservation, evaluation and distribution of 5,000 botanical seed accessions of about 100 species; 1,000 in vitro clones are also preserved.
- Collected 18 germplasm collections from Arizona and received 15 new cultivars and breeding clones from cooperators in 2014.
- Increased 218 accessions as botanical seed populations and 2,700 accessions as clones in 2014.
- Carried out virus tests of over 700 accessions, germination tests of 1523 accessions, and ploidy determination of 23 accessions in 2014.
- Distributed a total of 4,695 accessions in 2014, including 4,463 domestically and 232 internationally.



# Potato Genebank (NRSP-6)

- Taxonomic classification of accessions.
- Breeding for improved *Criolla* (egg yolk) style speciality potato.
- Use of SNPs for genetic diversity study.
- Evaluation of crossability of *S. verrucosum* with *S. jamesii*.
- Cooperative research for evaluation of heat stress tolerance, glycoalkaloids, anti-obesity, new Double *Corolla* mutant, and Zebra Chip resistance.



# Potato Genebank (NRSP-6)

## ➤ Impact of NRSP-6 on potato industry:

**Discovering and deploying traits:** better selections for golden flesh, frost resistance in Peruvian highlands, folate, potassium, resistance to tuber greening, glycoalkaloids, and a natural appetite suppressing protein.

**NRSP6 exotic germplasm in the pedigrees of many new cultivars this year:** Yukon Gem, Classic Russet, Clearwater Russet, Alta Crown, Cooperation-88, Alpine Russet, Sentinel, Huckleberry Gold, Teton Russet, Elkton, M7 Germplasm Release, AmaRosa, Purple Pelisse, Owyhee Russet, Palisade Russet, Saikai 35.

