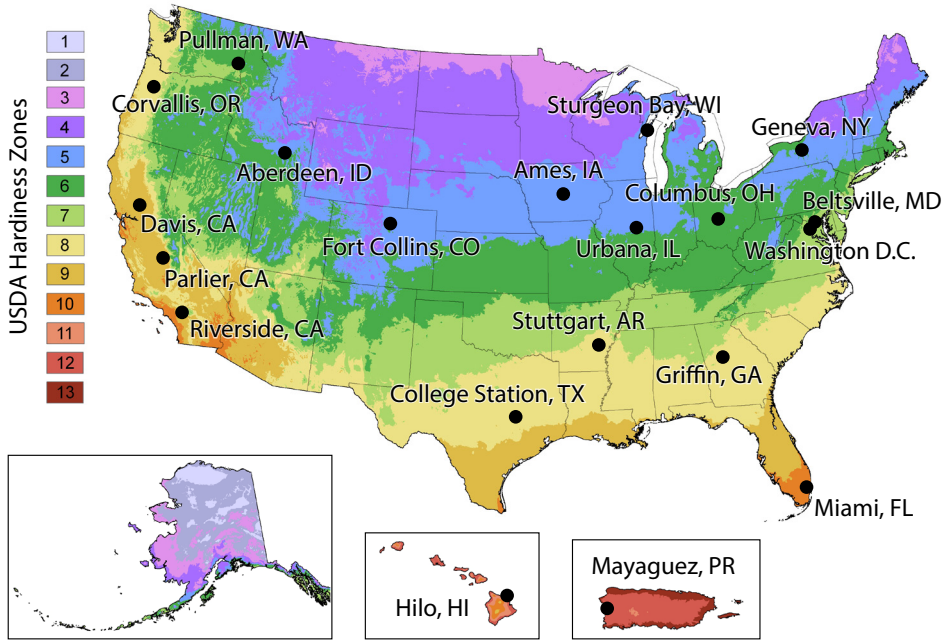
Strengthening the USDA/ARS National Plant Germplasm System to Conserve and Utilize Crop Germplasm That Sustains Us

The U.S. National Plant Germplasm System (NPGS) is Crucial to Global Food Security



NPGS safeguards and delivers plant germplasm for food, fiber, animal feed, industrial, medicinal, and ornamental crops. Plant breeders utilize that plant germplasm to develop new crop varieties that are more nutritious, with higher yields, resilience to extreme weather, and resistance to diseases and pests.

NPGS has **22** genebanks that...

- manage **200+** crops
- maintain **600,000+** unique kinds of plant germplasm
- distribute **200,000+** research samples each year

The NPGS Faces Daunting Challenges

Inadequate NPGS genebank operational capacity results in losses and deteriorating germplasm quality.

NPGS collections have critical backlogs in:

- **securing plant germplasm in long-term storage**
- **testing plant germplasm quality and health**
- **regenerating plant germplasm**
- **characterization, trait evaluations, and genetic enhancement of germplasm**

Lack of technical knowledge for conserving some plant germplasm, particularly wild species, limits the scope of germplasm the NPGS can effectively safeguard.

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USDA

NPGS 10 Year Plan to Meet the Challenges

Directed by the 2018 Farm Bill, the National Genetic Resources Advisory Council (NGRAC), and customers/stakeholders, the NPGS Plan will expand cutting-edge research and germplasm management capacity to safeguard and increase availability and utilization of NPGS germplasm, leading to:

- More plant germplasm maintained disease-free, securely backed-up, and available for research and breeding
- Knowledge of the intrinsic genetic variation and high value traits in plant germplasm
- New plant germplasm with valuable traits acquired, conserved, and developed

Budget Increases Starting in Years 1-5

Recurrent annual base funding increases:

- $17.45 million for germplasm maintenance
- $25 million for trait evaluations
- $1.8 million to manage genetic characterization data
- $50-150 million for genetic enhancement of germplasm

Non-recurrent funding increase:

- $57.7 million for genetic characterization

The costs to implement this Plan are estimated and do not constitute a USDA request for funding.

Budget Increases Starting in Years 6-10

Recurrent annual base funding increase:

- An additional $12.25 million for germplasm maintenance (for a total increase of $29.7 million)

The costs to implement this Plan are estimated and do not constitute a USDA request for funding.

Plan Timeline