



U.S. DEPARTMENT OF AGRICULTURE

Welcome to the 2024 CGC Chairs Annual Meeting

**It takes too long for everyone to introduce themselves audibly.
We invite you to use the chat feature to share
your name, CGC, and affiliation.**

CGC Business Reminders

How do I update CGC minutes, Crop Vulnerability Statements, etc. on the CGC page of GRIN?

- Send updates to Gary Kinard, who will post them to the site.

How do I update CGC membership rosters?

- Two options:
 - We can give you permission to update them real-time on the CGC page (Google spreadsheet). This is the preferred method.
 - If it's a minor update, Gary can make it for you.
 - Note: Feel free to delete or omit detailed information such as mailing address and phone numbers if you choose. We recognize there is more sensitivity to public access to this information than in prior times. ARS would primarily like to know the names and affiliations of CGC members. As chairs, you might find the rosters a convenient and continuous way to maintain an email group for your committee.

Who should be notified when there is a new CGC Chair?

- Please notify Gary Kinard, who will update the ARS-GRIN-CGC Outlook group. It's a good idea to also notify the PGR NPL, currently Gayle Volk.

How can I submit content that you may want to add to GRIN-U?

- Send it to Gary Kinard and/or Gayle Volk.

Thank you for serving as a CGC Chair!

The National Plant Germplasm System: 2024 Status, Prospects, and Challenges

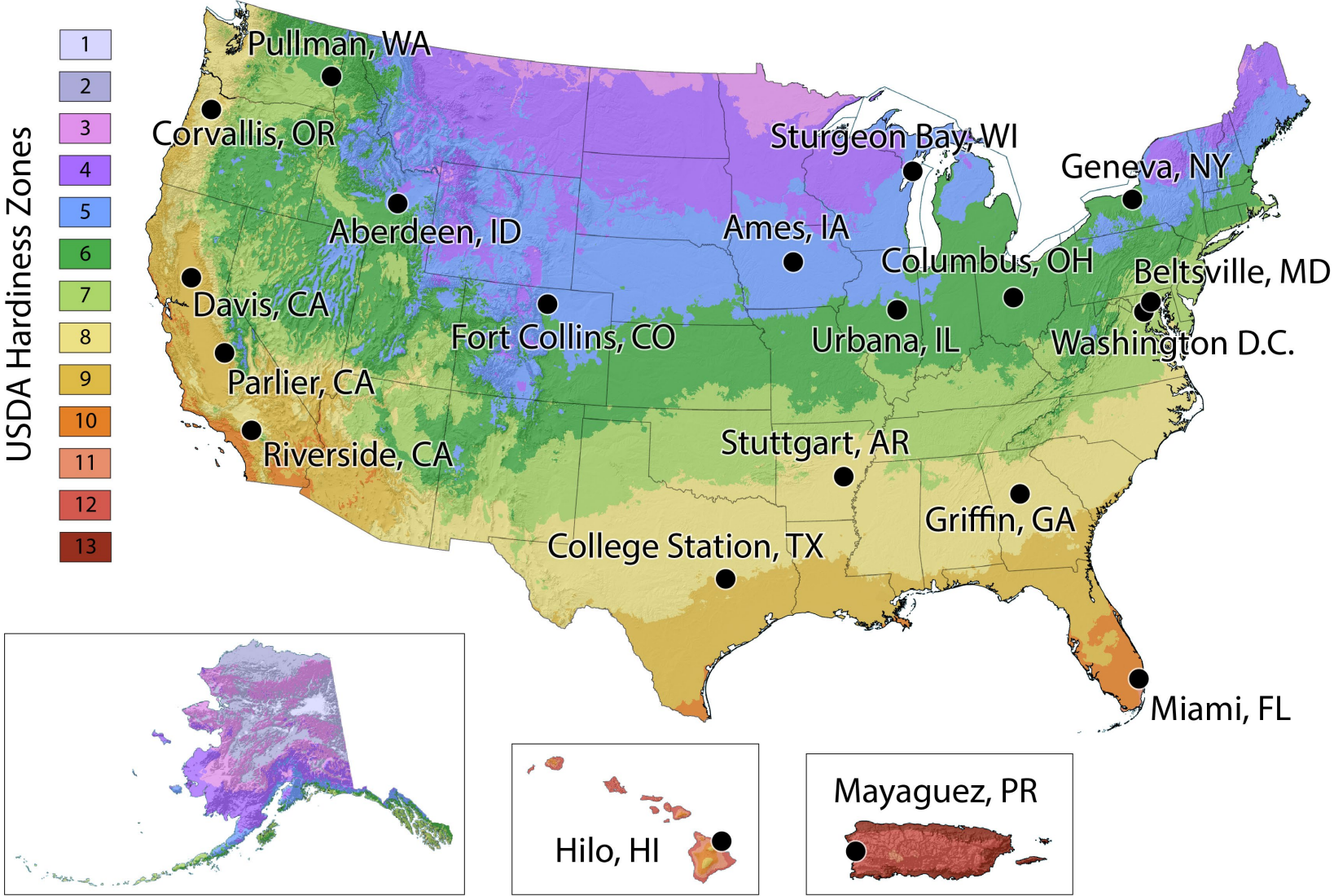
Gayle Volk, Ph.D.

Office of National Programs (detail)

National Laboratory for Genetic Resources
Preservation, Fort Collins, Colorado

Gayle.Volk@usda.gov

USDA National Plant Germplasm System (NPGS)



New Plant Hardiness Zone Map released 11/2023

USDA National Plant Germplasm System



Acquire



Maintain



Document



Characterize
& Evaluate



Regenerate



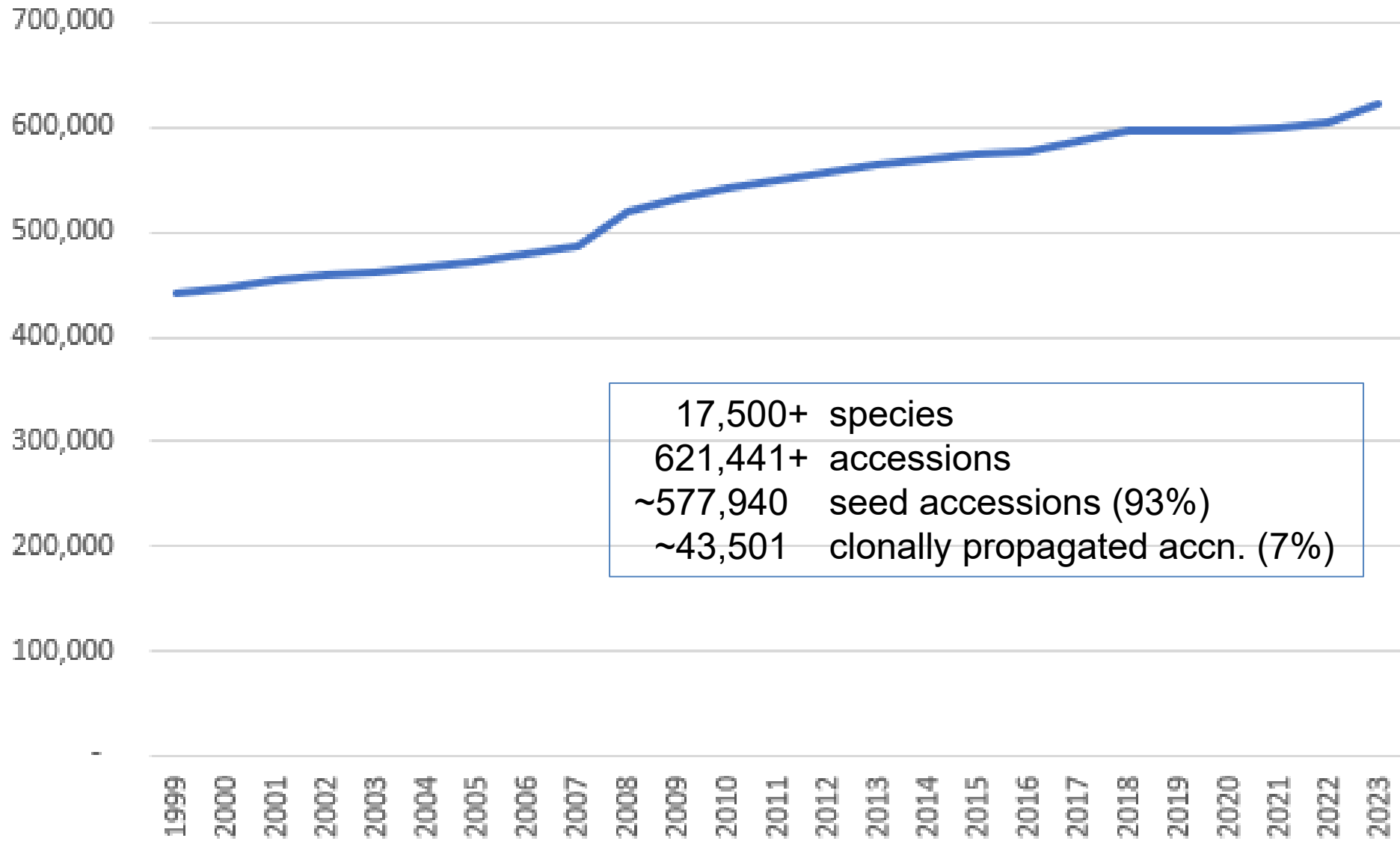
Secure



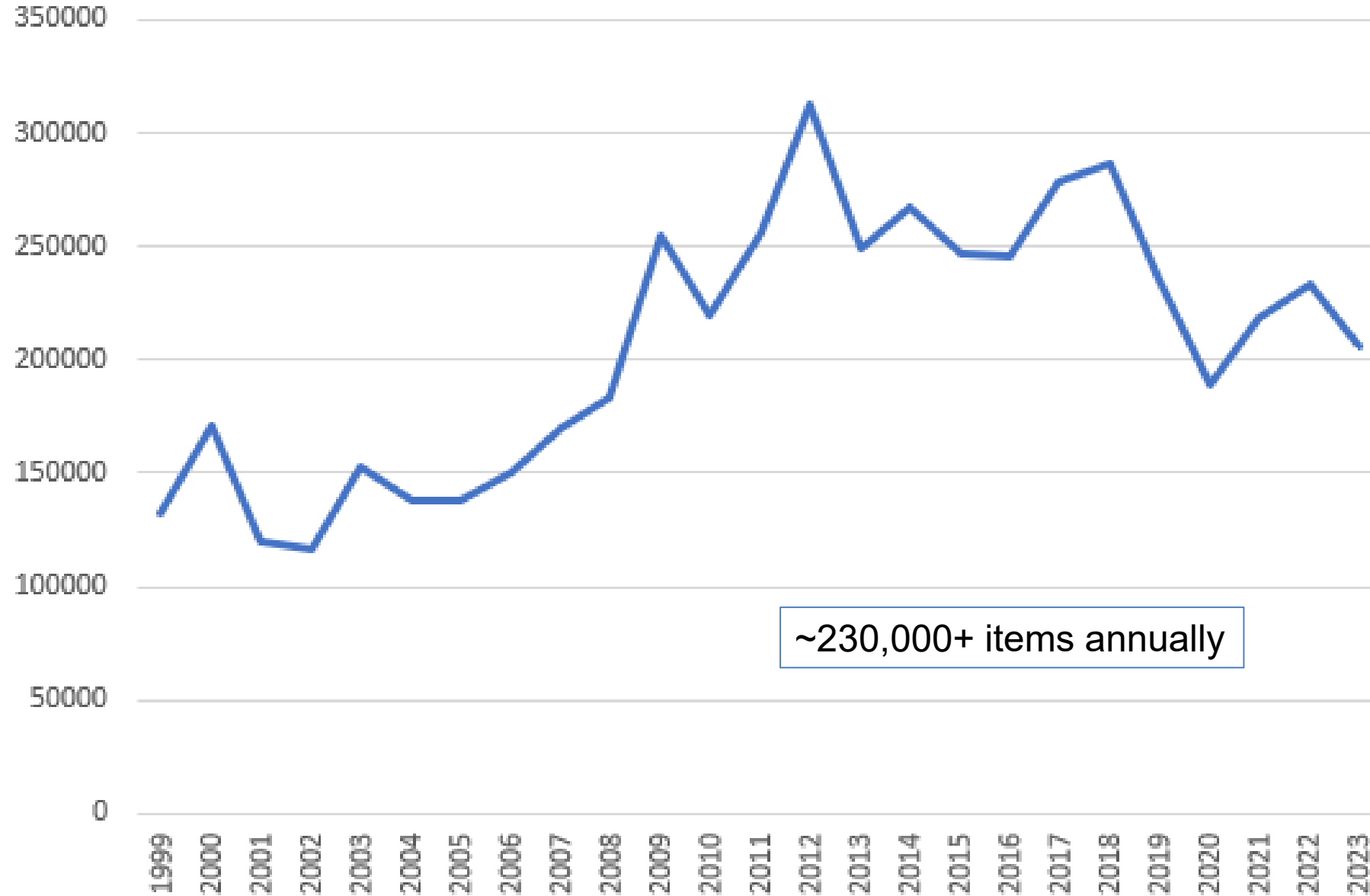
Distribute

Communicate with Customers and Stakeholders

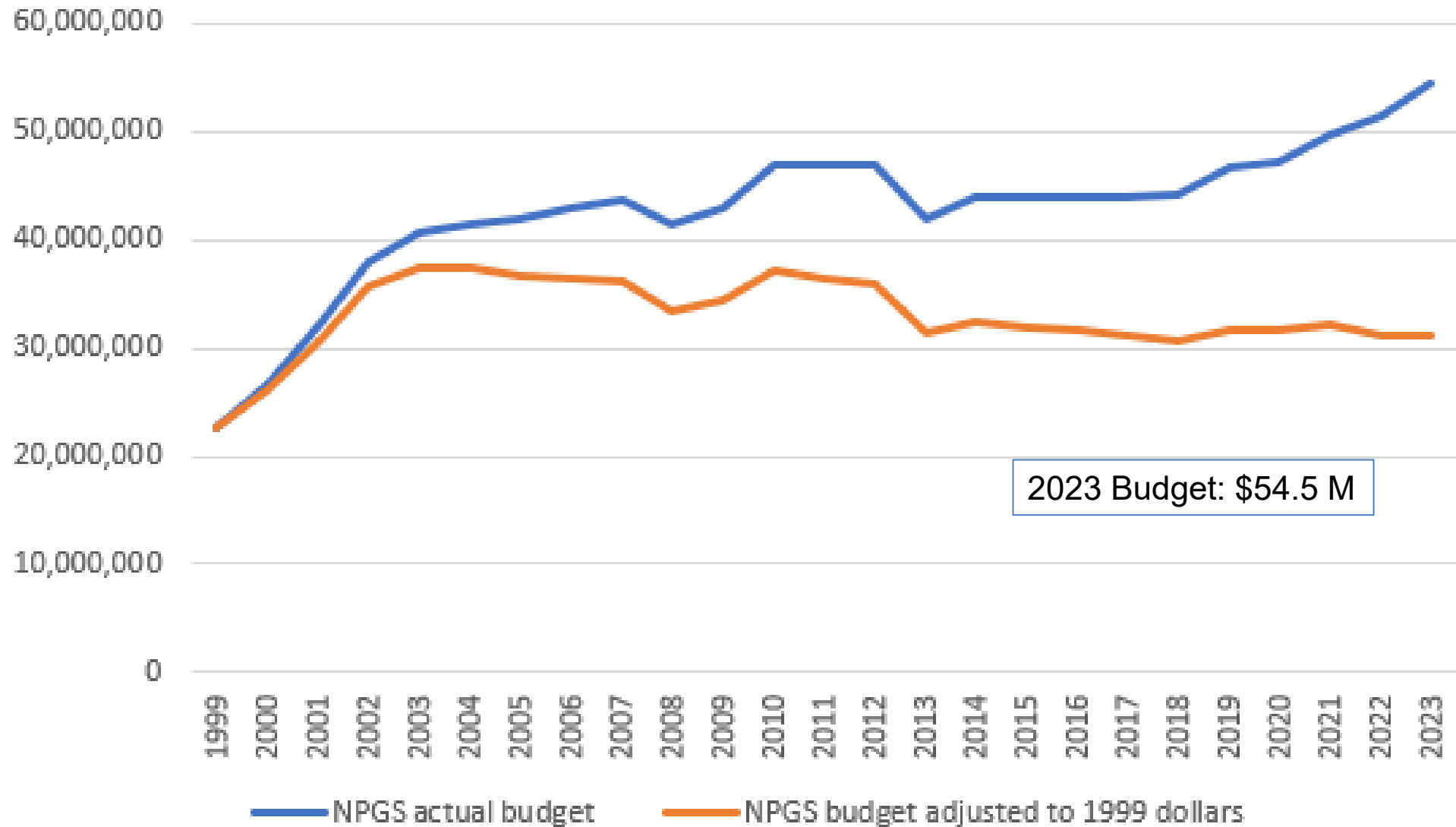
NPGS Accessions



NPGS Distributions



NPGS Budget



FY 23 ARS NPGS Budgetary Increases

- National Arboretum (ca. \$138,000) Washington, D.C.
- Sugarcane Variety Development (ca. \$166,667)
Miami, FL
- Small Fruits PGR (ca. \$500,000) Corvallis, OR
- Pecan Genetic Research (ca. \$500,000) College
Station, TX

NPGS Personnel Transitions

- Farewell and best wishes to Peter Bretting (NPL), Tomas Ayala-Silva (Mayaguez), Harold Bockelman (Aberdeen), Kevin Conrad (National Arboretum), Kurt Endress & Matthew Riggs (DBMU), Barbara Hellier (Pullman), David Peters (Ames)
- Welcome to Noelle Anglin (Aberdeen), Alex Cornwall (Pullman), Yu Ma (Ohio State), Rebecca Povilus (Geneva); Carolyn Scagel (Corvallis), Singh Sukhwinder (Miami)

NPGS Strategic Plan

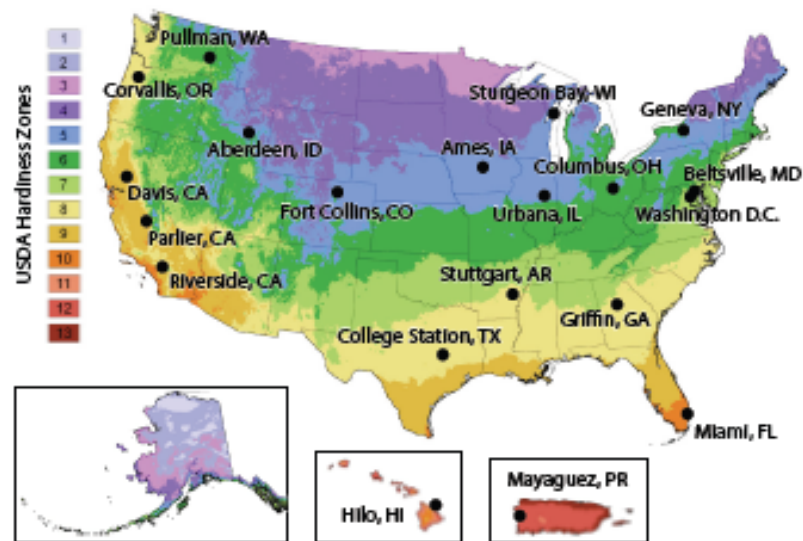
2018 Farm Bill directed USDA to develop and implement an assessment to address the significant backlogs in the NPGS. The NPGS Plan was released in 2023 and is available at

<https://www.ars-grin.gov/Pages/NPGS>

- NPGS Plan Infographic
- NPGS Plan Synopsis of the National Strategic Germplasm and Cultivar Collection Assessment and Utilization Plan
- NPGS Plan Technical Details, Analyses, and Approaches
- Crop and Crop Wild Relative Collections Data

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.

Contact: Peter.Bretting@usda.gov
Designed by: Kathryn Chen & Gayle Volk



NPGS Plan
Infographic
(front)

NPGS Plan Infographic (back)

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

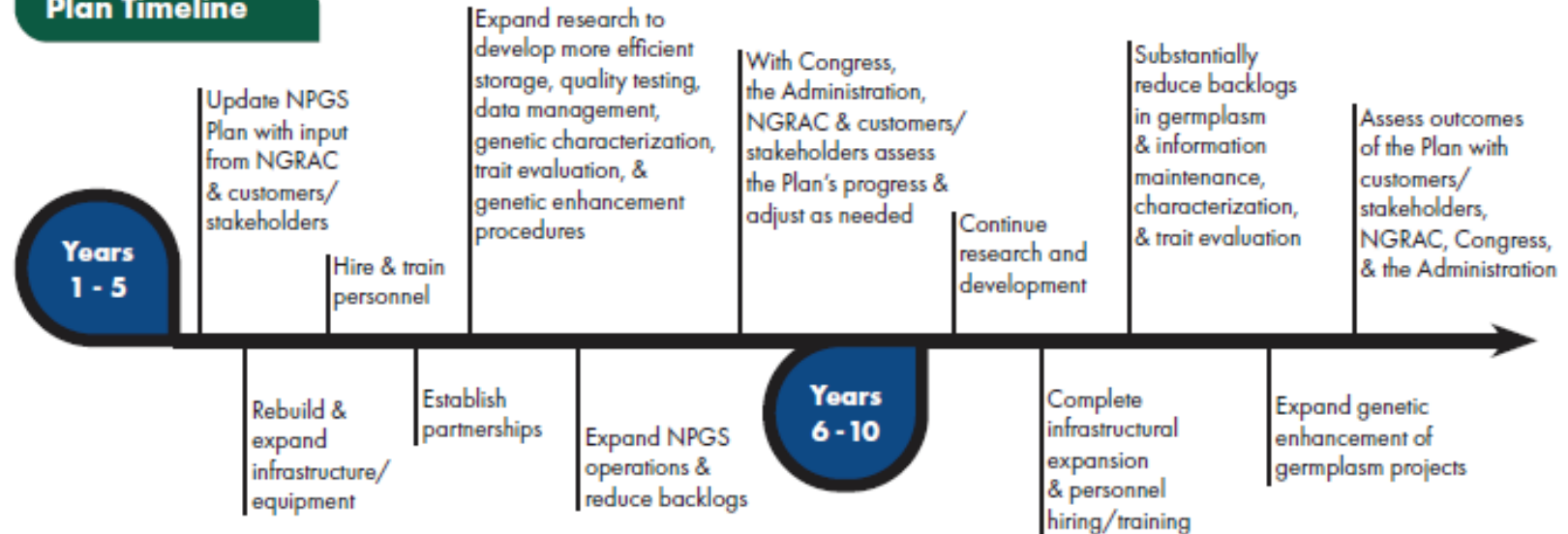


Knowledge of the intrinsic genetic variation and high value traits in plant germplasm



New plant germplasm with valuable traits acquired, conserved, and developed

Plan Timeline



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)

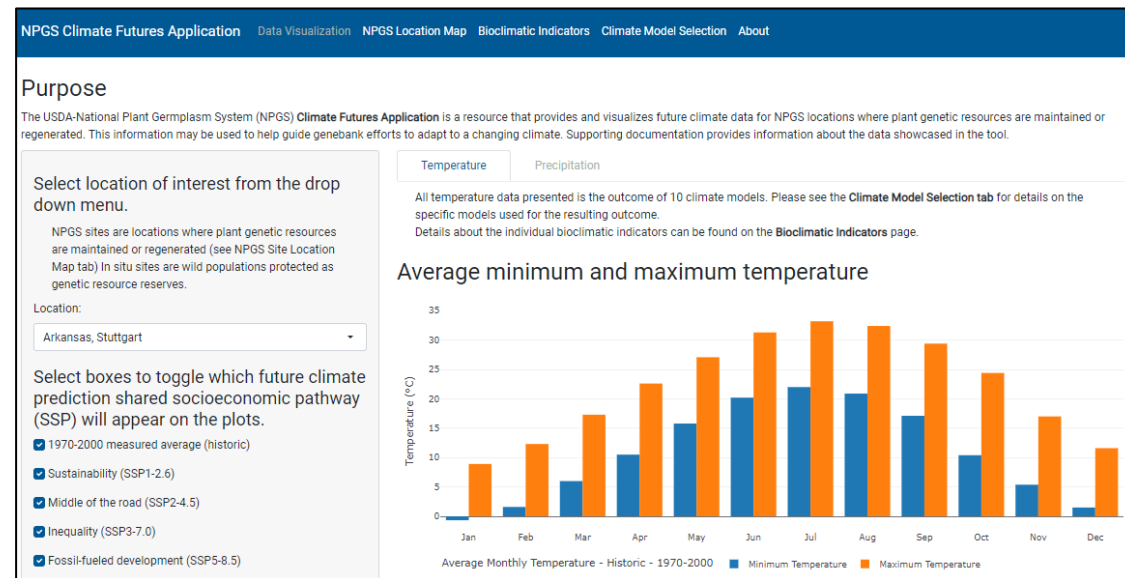
The costs to implement this Plan are estimated and do not constitute a USDA request for funding.

Adapting the NPGS to rapid global warming

- Safeguarding plant genetic resources in the United States during global climate change. 2023. *Crop Science*.

<https://doi.org/10.1002/csc2.21003>

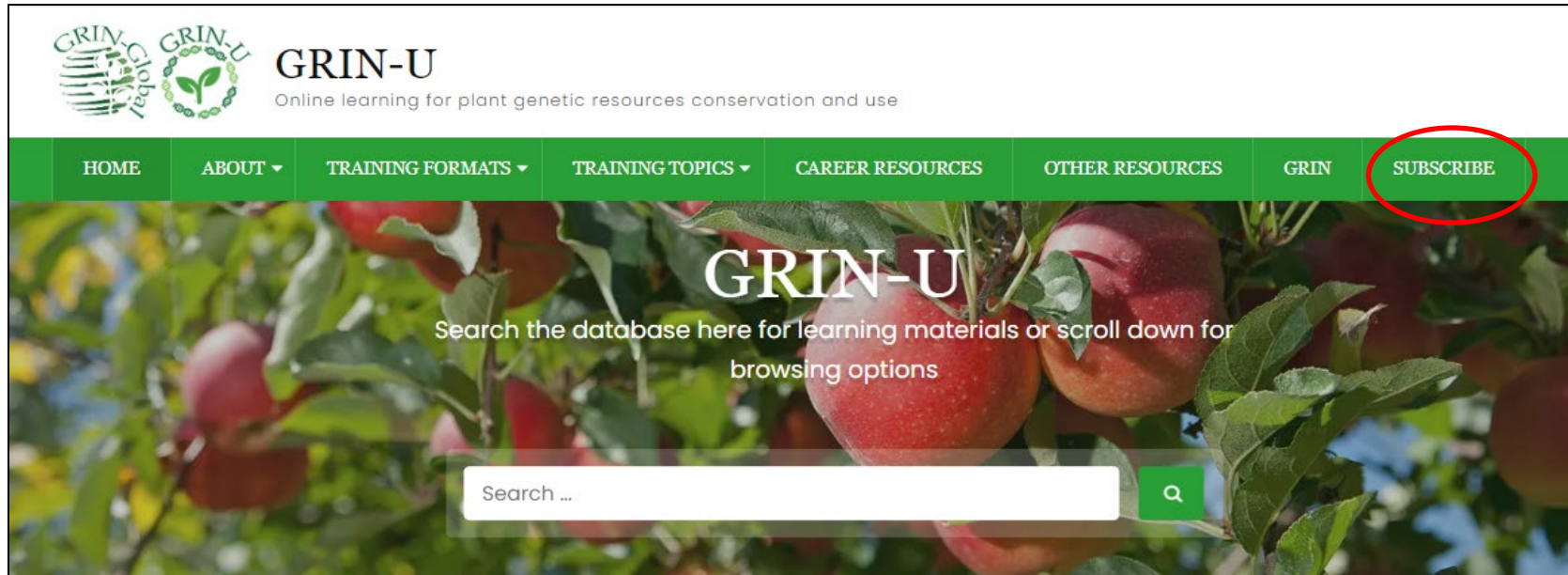
- Includes case studies, an application for estimating future conditions at NPGS sites, potential adaptive strategies and actions.



Some key challenges for the NPGS

- Increased operational costs (labor, inputs, overall inflation).
- NPGS personnel transitions—hiring, training, etc.
- Backlogs for regenerations and viability testing.
- Developing and applying cryopreservation and/or in vitro conservation methods for clonal and some seed PGR.
- BMPs and procedures for managing accessions with GE traits in more crops, the occurrence of adventitious presence (AP), and the products of gene editing.
- Acquiring and conserving additional PGR, especially of crop wild relatives.

Educational Resources for PGR Conservation and Use



GRIN-U.org

eBooks

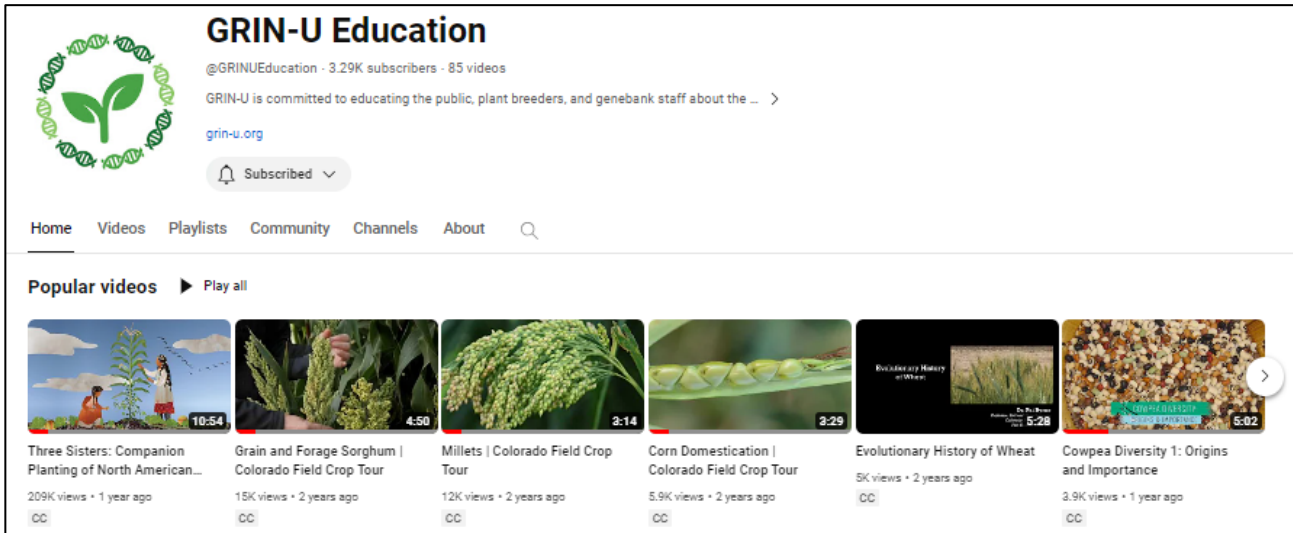
Videos

Infographics

Webinars

Links to other resources

GRIN-U Education YouTube



GRIN-U Education
 @GRINUEducation · 3.29K subscribers · 85 videos
 GRIN-U is committed to educating the public, plant breeders, and genebank staff about the ...
grin-u.org
 Subscribed

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Popular videos ▶ Play all

- Three Sisters: Companion Planting of North American...
209K views · 1 year ago
- Grain and Forage Sorghum | Colorado Field Crop Tour
15K views · 2 years ago
- Millet | Colorado Field Crop Tour
12K views · 2 years ago
- Corn Domestication | Colorado Field Crop Tour
5.9K views · 2 years ago
- Evolutionary History of Wheat
5K views · 2 years ago
- Cowpea Diversity 1: Origins and Importance
3.9K views · 1 year ago

Infographics

PLANT GENETIC RESOURCES THE KEY TO GLOBAL FOOD SECURITY

Plant breeders utilize the genetic diversity of plant genetic resources (PGR)—the wide range of crop species and their wild relatives—to develop new crop varieties.

Plant breeders use PGR by evaluating plants for traits of interest, selecting the best, and crossing them to adapted varieties. PGR are crucial for adapting crops to changing climates, combating new strains of disease and insects, and developing healthier foods.

PGR include current and traditional varieties and related wild plants. Crop wild relatives are the ancestors of crops and natural species found in their native habitat. Landraces and traditional varieties selected by farmers for adaptation to local conditions. Crop varieties have been developed by plant breeders and farmers.

Genebanks acquire, maintain, document, and distribute PGR.

Living threats from insects and diseases. Degrading land and water availability. Insect resistant. Higher Yielding. Disease Resistant. More Nutritious.

Plant breeders use PGR to develop improved varieties that are:

- Insect Resistant
- Higher Yielding
- Disease Resistant
- More Nutritious

When weather conditions are harsh, crop wild relatives have been used to develop new crop varieties. Crop wild relatives have been used to develop new crop varieties. Crop wild relatives have been used to develop new crop varieties.

USDA NARS NARS USA

PLANT GENETIC RESOURCES GENE BANKS AND CONSERVATION

Plant genetic resources—the wide range of crop varieties and their wild relatives—are critical to safeguard food security now and in the future.

Plant genebanks have diverse collections that are agriculturally and economically important. These collections conserve PGR that could be lost from their natural habitats or local communities. Collections may be conserved as seeds in cold storage or as plants in the field, greenhouse, or in tissue culture.

Acquisition: Collectors represent a wide range of genetic diversity. New plant materials come from plant applications and exchange within country and internationally. Foreign inquiries are inspected or tested to measure they are free of pests and pathogens.

Maintenance: Plant genebanks are responsible for keeping collections alive and healthy. Seeds in cold storage that are regularly germinated to ensure they are still alive. Some collections are maintained as field genebanks/plants.

Evolution & Characterization: Test data are recorded for the plant collections. In addition, genetic methods assess collection diversity and determine genetic relationships. These data can also be used to identify collector gaps. Collections are used to identify new useful traits and materials of interest.

Regeneration: Plants may be grown in the field or greenhouse using techniques that do not alter each sample's genetic composition. Key disciplines include: crop science, horticulture, plant pathology, plant biology, and physiology.

Documentation: Data for the source, traits, genetics, and management history of plant collections are recorded in databases. One example is the GRIN database, which provides up-to-date information for the genebank collection of the U.S. National Plant Germplasm System.

Secure Backup: Duplicate collections are maintained at a secure secondary location. This ensures that collections will not be lost as a result of fire, flood, or environmental disasters. These back-up collections are then subjected to needs of cold storage. Durable tree buds, shoot tips, pollen, and seeds may be preserved in liquid nitrogen.

Distribution: Samples from plant genebanks are provided to scientists who need access to novel genetic materials and traits for research and breeding.

USDA NARS USA

National Plant Germplasm System CONSERVING CROP GENETIC RESOURCES IN THE U.S.

The U.S. National Plant Germplasm System (NPGS) is the network of USDA genebanks that safeguards our nation's precious plant germplasm (also termed genetic resources)—living material from which plants are grown.

NPGS conserves world-class collections of plant genetic resources. Collections include approximately 200 crops and their wild relatives, these are maintained across the country at 250 locations suited to the biological and environmental needs of each crop.

Diverse collections are key to agricultural security. Genetic diversity can be used to improve crop quality, yield, genetic disease resistance, tolerance to environmental stresses and more. NPGS distributes living plant material to researchers and breeders working to develop and improve crops for a growing population and changing climate.

Plant germplasm is conserved in many forms. Crops are maintained under a variety of conditions, including: in the field, greenhouse, openhouse, or in cold storage. They maintain living collections as: Plants growing in the field, greenhouse, openhouse, or in cold storage. Seeds or frozen tissue in cold storage.

Food and Beverage: Most of NPGS collections are food crops. This includes fruits and nuts, vegetables, grains, oleiferous herbs, beverage crops, and more. Fiber: Certain crops are cultivated for fiber, such as cotton, hemp, and flax. Industrial and Medicinal: Some crops have industrial applications and are used in biofuels, lubricants, cosmetics, and medicines. Feed: A variety of crops are used for feeding livestock such as sorghum, corn, and poultry. Ornamental: Some plants are grown for their aesthetic interest and role in environmental quality.

NPGS conserves germplasm from 16,000+ plant species. NPGS distributes 200,000+ items of research each year. NPGS holds over 600,000+ unique kinds of germplasm.

USDA NARS USA

BOTANIC GARDENS AND THEIR VALUABLE ROLE IN CONSERVING PLANT GENETIC RESOURCES

Botanic gardens and arboreta mobilize scientific, collaborative, and strategic approaches to conserve our valuable plant genetic resources (PGR)—the wide range of wild and cultivated plants.

Botanic gardens maintain PGR in a variety of forms: Living collections, Seed collections, Plant records.

Functions of botanic gardens: The role of botanic gardens continually evolves. Rapid decline of biodiversity has increased the need for action. Botanic gardens use diverse strategies to advance local and global conservation efforts. Study economic conditions, Monitor research PGR in nature, Conduct explorations to collect PGR, Curate & document plant collections, Educate & engage the public, Provide responses & well-being, Provide access to genetic diversity.

Regional and global networks coordinate conservation efforts. Botanic gardens and agricultural genebanks are the leading conservation repositories—facilities that conserve PGR as collections. Agricultural genebanks typically preserve PGR for food and agriculture at botanical gardens (Mexico) and 33 national genebank facilities. Botanic gardens vary in scope and architecture, but broadly conserve diverse PGR with cultural and ecological value. North America has >1,030 botanic gardens.

There are at least 3,038 botanic gardens worldwide. >107,000 species are held in living plant collections. This is equal to approximately 91% of all vascular plants. Botanic gardens provide an estimated 500 million visits each year.

USDA NARS USA

Submit PGR Success Stories!

Plant Genetic Resources: Success Stories

Eds. Gayle Volk; Katheryn Chen; and Patrick Byrne

 Public Domain


[READ BOOK](#)



Plant Genetic Resources: Success Stories

Gayle M. Volk, Katheryn Y. Chen, and Patrick F. Byrne

Plant Genetic Resources Success Story Submission Template



Documenting Success Stories

Documenting success stories and making them available to the public are important for ensuring continued support for plant genetic resources conservation and plant breeding efforts. Our goal is to document successes, broadly defined, that relate to plant genetic resources conservation and use, and crop improvement activities.

To ensure this information is accessible to the broadest possible audience, please keep content concise, minimize the use of jargon and acronyms, and write with a general audience in mind. It is the contributors' responsibility to seek permissions to share success stories from other researchers and breeders. Content may be edited and formatted before being posted on the public [GRIN-U website](#) and/or the [National Association of Plant Breeders website](#). All edits will be shared with the contributor for final approval before posting to websites.

Once completed, email this form and 1-3 high-quality images to PGRSuccesses@gmail.com. For questions or comments, please contact Pat Byrne (Patrick.byrne@colostate.edu) or Gayle Volk (Gayle.Volk@usda.gov).

*Required fields

Contributor Information

*Contributor(s) name: Author1 and Author2

Strawberry 'Cordial' - Late Season, Long Shelf Life

USDA-ARS Genetic Improvement for Fruits & Vegetables Laboratory



Photo from Larsen and Em, 2022 (CC BY-NC-ND 4.0)

Strawberry cultivar 'Cordial', released in 2020 by the USDA, is a late-season cultivar for planting during the late part of the growing season in the Mid-Atlantic region of the U.S. It is a short-day strawberry, meaning that plants will flower as the daylength grows shorter in the northern hemisphere. 'Cordial' has large attractive fruits that are tough enough for rough handling, have increased shelf life, minimal proportion of produce lost to degradation, and possesses consistently high yields with low rot when grown in plasticulture production systems without fumigation/fungicide.

PROJECT GOALS

- ✓ Develop non-tart strawberries with increased shelf life
- ✓ Improve resistance to rot and provide consistent high yields

Problems Addressed

U.S. Department of Agriculture-Agricultural Research Service strawberry research efforts at Beltsville, MD, have resulted in release of several cultivars with high yields and good fruit flavor: 'Keepsake', 'Flavorfest', 'Allstar', 'Galletta', 'Ovation', 'Earlyglow', 'Chandler', etc. Decayed fruit, poor handling and refrigeration tolerance, foliar and fruit disease incidence, and reduced shelf life remained a production problem. The project therefore focused efforts on increasing shelf life, tolerance to rough handling, resistance to diseases, as well as reducing tartness and maintaining consistently high yields.

Solutions Developed

'Cordial' was developed by cross-pollinating B1893 × B1805. This new cultivar's average total yield was significantly higher than all cultivars tested, with one of the highest marketable yields. 'Cordial' showed significant resistance to crown rot, very mild bacterial angular leafspot disease symptoms, and mild powdery mildew disease symptoms. 'Cordial' fruit skin toughness rating was very high, and it exhibited fruit sweetness similar to 'Flavorfest', 'Keepsake', and 'Earliglow'. Due to its longer shelf life, less tartness, and disease resistance, 'Cordial' has the potential for a greater market share.

Written by: A. Mahama, S. Gray, W. Suza, K. Chen (editor)

To learn more about this and other success stories, visit colostate.pressbooks.pub/pgrsuccessstories

**National Laboratory for Genetic Resources
Preservation
Fort Collins, CO**



Daren Harmel: Research Leader

Christina Walters: Seed Research & Viability, Lead Scientist

Vacant, Seed Curation & Microbes

Chris Richards: Population Genetics

Maria Jenderek: Clonal Curation

Gayle Volk: Clonal Research & Implementation, GRIN-U Training

Harvey Blackburn: Animal Geneticist, Lead Scientist

Phil Purdy: Animal Physiologist

NPGS Collections

82% of the NPGS seed accessions are secured (~ 500,000 accn)

15% of the NPGS clonal accessions are secured (~5000 accn)



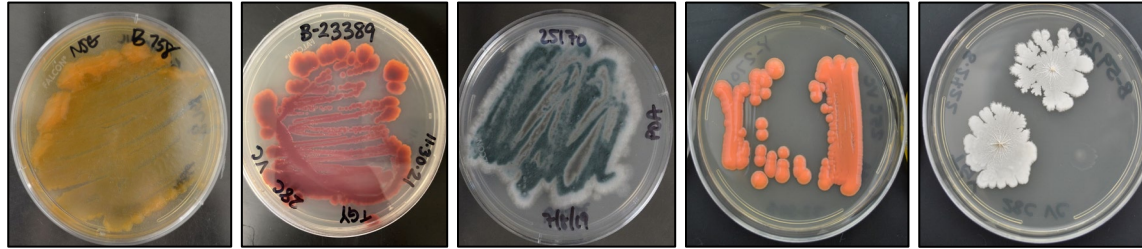
-18°C Freezers
seed storage



LN & LNV (-150 to -196°C)
Clonal shoot tips &
dormant buds, as well as
embryonic axes, some
seeds, and pollen

Additional NLGRP Collections

- >90,000 microbe accessions from the USDA-ARS Culture Collection (microbes) in Peoria, IL



- 65,000 animals representing 170 breeds



- 60 Black Box collections for seeds: Botanic Gardens, National Genebank collections, International Centers
- 1094 Journal of Plant Registrations & 8456 Plant Variety Protection Voucher Specimens

NLGRP Data Management



- ✓ GRIN-Data integration for seed check-in process (weights, labels)
- ✓ Reviewing and standardizing all NLGRP clonal data in GRIN-Global
 - Standardizing seed and clonal documentation processes
 - Reviewing Black box storage agreements
 - Improving workflows for PVPs → sites
 - Improving reporting features for NLGRP

Cullen McGovern and the NLGRP Data Management Team

Thank you!

- Serving as customer and Stakeholder resources for the NPGS
- Submit Success Stories
- Update Crop Vulnerability Statements & Quad Charts
- Work with us to contribute GRIN-U content
- Evaluation and Exploration Proposals

National Germplasm Resources Laboratory Plant Exchange Office

Anne Frances

Melanie Schori

Jennifer Friedman

Karen Williams (Contractor)

Crop Germplasm Committee Chairs Meeting
March 4, 2024

Plant Exchange Office Updates

- Plant Exploration & Exchange Program
- Crop Wild Relatives
- International Distributions (with USDA-APHIS)
- GRIN Taxonomy



Vitis ripara,
Hedrick and
Booth 1908

NPGS Plant Exploration & Exchange Program



Anne Frances
Plant Exchange Office
National Germplasm Resources Laboratory
Beltsville, Maryland
anne.frances@usda.gov

NPGS Plant Exploration & Exchange Program

- Fills gaps in the NPGS
- Proposal guidelines on SharePoint
- Proposals accepted yearly (due July 31)
- CGCs and curators must endorse proposals
- Crop Vulnerability Statements help identify priorities
- International explorations require prior informed consent



O. F. Cook,
Special Agent in Charge of Seed and Plant Introduction.

INVENTORY.

OLERACEA. Cabbage.

w, Russia. Received through Prof. N. E. Hansen, February, 1898.
(res.) "Bronka;" early variety.

Access and Benefit Sharing for International Explorations

- NPGS explorations abide by the CBD* principle of national sovereignty over genetic resources
- Prior informed consent (PIC) obtained from national authority (form of a letter, permit, MTA, etc.) via PEO
- Includes agreement on benefit sharing
- Acceptable benefits are “in-kind” (training, equipment purchase, increase projects, etc.)
- SMTA provides terms for some explorations

*Convention on Biological Diversity <https://www.cbd.int/convention/>

NPGS Plant Explorations FY 2023

Citrus spp.

Vietnam

Grindelia squarrosa

US: western states

Monarda sp. nov.

US: Kentucky

Chionanthus virginicus

US: Missouri, Arkansas

Phaseolus spp.

US: New Mexico



*Grindelia
squarrosa*

Crop Wild Relative Conservation

Continued collaborations: Forest Service, US Botanic Garden, Botanic Gardens Conservation International, NatureServe, etc.

- Crop Wild Relative Conference, Denver, September 2024
<https://www.bgci.org/news-events/cwr2024/>
- NAFANT gap analysis North American Fruit and Nut Tree group
<https://northamericanfruitnuttreecwr.github.io/>
- Small grants for CWR collection and maintenance (BGCI-US and USBG)

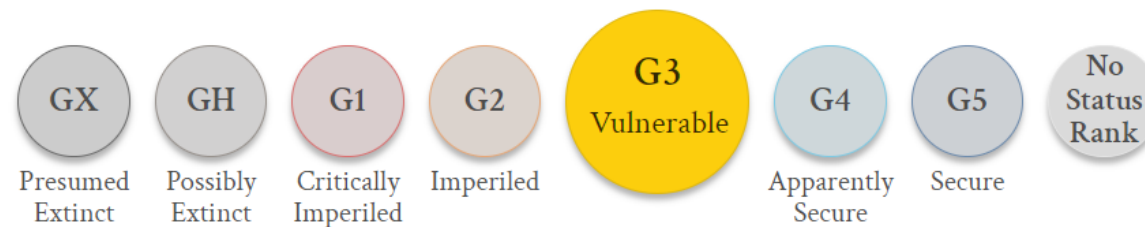
Crop Wild Relative Conservation

Vitis conservation

- Special Issue in Plants, People, Planet open call for papers
- County level maps are being developed
- Symposium at the International Botanical Congress, Madrid 2024
- Conservation status assessments on NatureServe Explorer

Vitis rufotomentosa

Rusty Grape



NPGS International Distributions (Jennifer Friedman)

National Cotton Germplasm Collection (COT)	Woody Landscape Repository (NA)
Griffin Plant Introduction Station (S9)	Potato Germplasm Introduction Station (NR6)
National Small Grains Collection (NSGC)	Ornamental Plant Germplasm Center (OPGC)
Western Regional Plant Introduction Station (W6)	Desert Legume Program (DLEG)
National Arid Land Plant Genetic Resources Unit (Parlier)	North Central Regional Plant Introduction Station (NC7)
U.S. Nicotiana Germplasm Collection (TOB)	Soybean/Maize Germplasm, Pathology, & Genetics Research Unit (SOY)
Plant Genetic Resources Unit, Geneva*	National Laboratory for Genetic Resources Preservation*

*Occasional

FY23: 45,909 samples to 62 countries

Contact: jennifer.friedman@usda.gov

GRIN Taxonomy Search Refresher

Search Taxonomy Data in GRIN-Global

Note: Use the Shift key + b, f, g, s, r or d to navigate between tabs.

Results of 5000 or more will be returned without links.

Browse	Family	Genus	Species	Results	Distribution
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Genus or species name

Specific or infraspecific name

Melanie Schori
Plant Exchange Office
National Germplasm Resources Laboratory
Beltsville, Maryland
Melanie.Schori@usda.gov

Taxonomy search page

Search Taxonomy Data in GRIN-Global

Note: Use the Shift key + b, f, g, s, r or d to navigate between tabs.

Results of 5000 or more will be returned without links.

[Browse](#) [Family](#) [Genus](#) [Species](#) [Results](#) [Distribution](#)

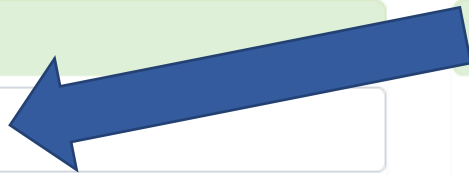
Genus or species name

Specific or infraspecific name

Common name

Exact match

Hybrid parentage



Exact search results

Show 100 rows

Excel

CSV

Showing 1 to 18 of 18 entries

Search:

Name	Synonym of	Taxon Family
<i>Avena fatua</i> L.		Poaceae
<i>Avena fatua</i> L. subsp. <i>cultiformis</i> Malzev	<i>Avena fatua</i> L.	Poaceae
<i>Avena fatua</i> L. subsp. <i>fatua</i>	<i>Avena fatua</i> L.	Poaceae
<i>Avena fatua</i> L. subsp. <i>meridionalis</i> Malzev	<i>Avena hybrida</i> Peterm.	Poaceae

Full name search

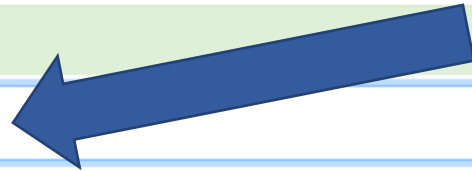
Search Taxonomy Data in GRIN-Global

Note: Use the Shift key + b, f, g, s, r or d to navigate between tabs.

Results of 5000 or more will be returned without links.

Browse	Family	Genus	Species	Results	Distribution
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Genus or species name



Specific or infraspecific name

Results of 5000 or more will be returned without links.

Browse	Family	Genus	Species	Results	Distribution
--------	--------	-------	---------	---------	--------------

[Click to display query parameters.](#)

There are no species results for your search.

Partial name search

Search Taxonomy Data in GRIN-Global

Note: Use the Shift key + b, f, g, s, r or d to navigate between tabs.

Results of 5000 or more will be returned without links.

[Browse](#) [Family](#) [Genus](#) [Species](#) [Results](#) [Distribution](#)

Genus or species name



Specific or infraspecific name

USDA Introduces a Multi-Year Plan to Strengthen U.S. Genebank Management of Plant Germplasm

Taxon: *Vaccinium macrocarpon* Aiton [New Species Search](#)

[Nomenclature](#) [Common Names](#) [Distribution](#) [Economic Uses](#)

Summary

Genus:	<i>Vaccinium</i>
Section:	<i>Oxycoccus</i>
Family:	<i>Ericaceae</i>
Subfamily:	<i>Vaccinioideae</i>
Tribe:	<i>Vaccinieae</i>
Nomen number:	41030

Other conspecific taxa



Thank you!
Questions?

Anne Frances
anne.frances@usda.gov

Melanie Schori
Melanie.Schori@usda.gov

Jennifer Friedman
jennifer.friedman@usda.gov

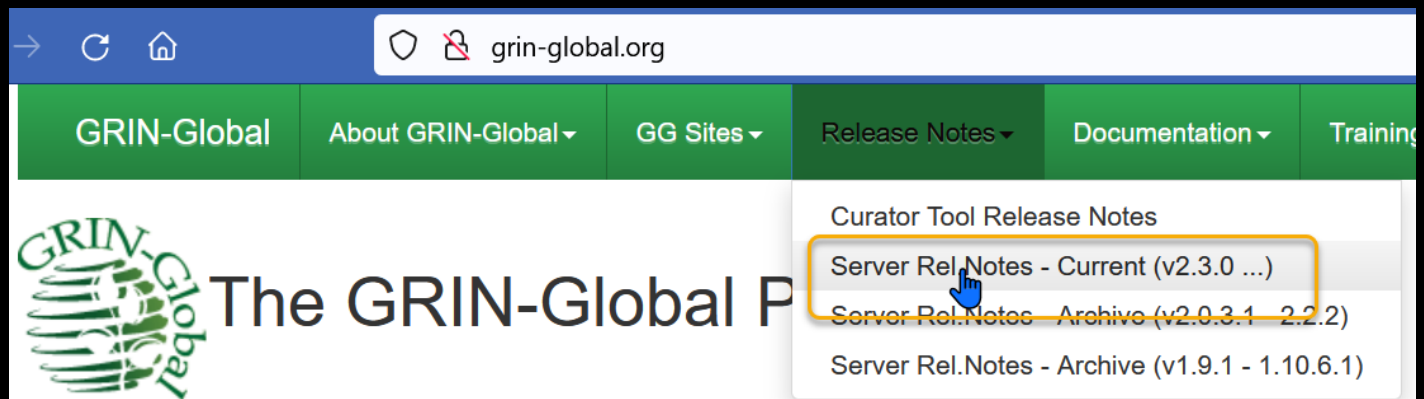
GRIN-Global

Public Website
&
Server Changes

Releases...

4 major releases since last CGC

Next release: March 2024



The screenshot shows a web browser at the URL grin-global.org. The navigation bar includes links for GRIN-Global, About GRIN-Global, GG Sites, Release Notes, Documentation, and Training. The Release Notes dropdown menu is open, displaying the following options:

- Curator Tool Release Notes
- Server Rel Notes - Current (v2.3.0 ...)
- Server Rel Notes - Archive (v2.0.3.1 - 2.2.2)
- Server Rel.Notes - Archive (v1.9.1 - 1.10.6.1)

The "Server Rel Notes - Current (v2.3.0 ...)" option is highlighted with a blue mouse cursor. The GRIN-Global logo and the text "The GRIN-Global P" are visible in the background.

Major Changes

SMTA acceptance
required for international
distributions effective
January 1, 2024

Major Changes

Changed mapping
feature to map only one
accession
(button added for
related accessions)

Major Changes

Advanced Search
plant parts option

Citations

Citation search added to the Crop Wild Relatives (CWR) page

Query Crop Relatives in GRIN-Global

Any or all fields can be searched.

Search criteria **Search citations** Results

Crops

- Celery, Leaf
- Centro
- Cherry, Sweet
- Chestnut
- Chestnut, American

Genus or Species Name (full or partial)

e.g., Oryza or Oryza sat

Showing 1 to 25 of 42 entries

Previous 1 2 Next

Crop	Crop Wild Relative	Citation
Chestnut, American, Chinese, Japanese	<i>Castanea ozarkensis</i> Ashe	Anagnostakis, S. et al. 2009. Preliminary report on the segregation of resistance in chestnuts to infestation by Oriental chestnut gall wasp. Acta Hort. 815:33-35. Note: this study examined pest resistance heredity using hybrids derived of crosses between <i>Castanea ozarkensis</i> and <i>C. mollissima</i> , and used as male parents in crosses with <i>C. dentata</i>

Citations

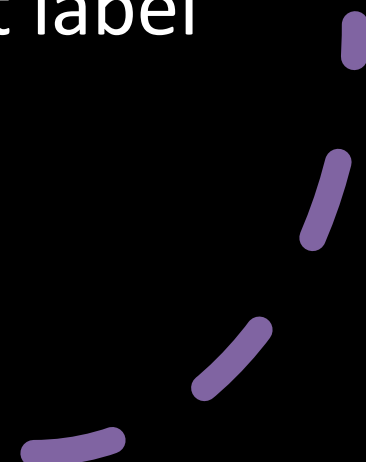
Citations on an Accession Detail page now include links to all other accessions with that citation

Citations

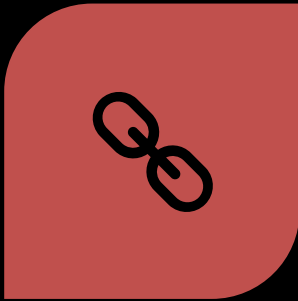
Klein, R. R., F. R. Miller, S. Bean, & P. E. Klein. 2016. Registration of 40 Converted Germplasm Sources from the Reinstated Sorghum Conversion Program. J. Pl. Registr. 10(1):057. DOI: [10.3198/jpr2015.05.0034crg](https://doi.org/10.3198/jpr2015.05.0034crg). Number of accessions cited: [40](#)



Taxonomy related

- Changed scientific name search to look for hybrids
 - Also added "no hybrid symbols" to the text label
- 

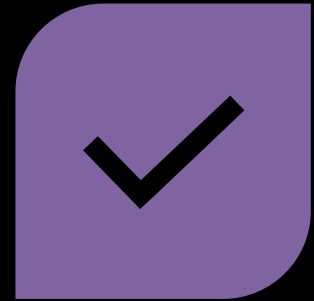
Usability Improvements



More direct links to
curatorial sites:
request history pages;
“Contact us”



Confirmation emails
w/ link to FAQs



Consistency - wording
changes

[Accessions](#)

[Descriptors](#)

[Reports](#)

[GRIN Taxonomy](#) ▼

[GRIN](#) ▼

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Main menu

GRIN-Global
suggestions & questions are always
welcome;
Training /demos can be arranged

Contact Us

Please do!