



CONSERVING

CROP

DIVERSITY

FOREVER

Genesys PGR portal

- Genesys is an aggregator of genebank accession information and aims to become the global resource on PGR information
 - Currently holds information on 2,773,082 accessions (some with C&E data)

<https://www.genesys-pgr.org>

- Developed by Bioversity International under BMGF grant to Crop Trust, project ended in 2011



Genesys PGR portal

- Passport data
 - CGIAR genebanks
 - EURISCO
 - USDA GRIN
- Characterization & Evaluation data
 - CGIAR genebanks
 - USDA GRIN



CROP LIST

[Banana](#)
[Barley](#)
[Beans](#)
[Breadfruit](#)
[Cassava](#)
[Chickpea](#)
[Coconut](#)
[Cowpea](#)
[Faba bean](#)
[Finger millet](#)
[Grass pea](#)
[Lentil](#)
[Maize](#)
[Pearl millet](#)
[Pigeonpea](#)
[Potato](#)
[Rice](#)
[Sorghum](#)
[Sweet potato](#)
[Taro](#)
[Wheat](#)
[Yam](#)

Accession Level
2,348,549

Page: 1 of 93942

1 2 3 4 5 6 7 8 9 10

Jump to page

Number of accessions in the result set: 2348549

<input type="checkbox"/> Institute	Accession Number	Source Country	Taxon Name	Acquisition Source	Acquisition Date	Availability
<input type="checkbox"/>	USA042 HMA2	United States	Macadamia integrifolia	Seed company	1988/10/21	Yes
<input type="checkbox"/>	USA390 DFIC 3	Unknown	Ficus carica	Other	1982/01/01	Yes
<input type="checkbox"/>	USA174 MGS 13907	United States	Zea mays	Research organization/Genebank	1993/01/01	Yes
<input type="checkbox"/>	USA042 HPSI 16	United States	Psidium guajava	Seed company	1987/10/07	Yes
<input type="checkbox"/>	USA390 DJUG 16	United States	Juglans californica	Other	1983/09/23	Yes
<input type="checkbox"/>	USA020 NSL 18	Colombia	Zea mays	Collected-Farm or cultivated habitat	1959/05	Yes
<input type="checkbox"/>	USA042 HPSI 20	Unknown	Psidium guajava	Seed company	1987/10/07	Yes
<input type="checkbox"/>	USA042 HLIT 23	Taiwan, Province of China	Litchi chinensis	Research organization/Genebank	1991/06/04	Yes
<input type="checkbox"/>	USA026 CSOR 26	Republic of Korea	Sorbus alnifolia	Collected-Farm or cultivated habitat	1985/06/11	No
<input type="checkbox"/>	USA003 PI 647609	Unknown	Fagopyrum esculentum	Other	1982/01/14	Yes
<input type="checkbox"/>	USA390 DPRU 43	United States	Prunus avium	Other	1983/01/01	Yes
<input type="checkbox"/>	USA020 Clze 45	United States	Zea mays	Research organization/Genebank	1982/01/14	Yes
<input type="checkbox"/>	USA390 DFIC 56	United States	Ficus carica	Other	1900/01/01	Yes
<input type="checkbox"/>	USA390 DPRU 67	United States	Prunus avium	Other	1983/01/01	Yes
<input type="checkbox"/>	USA390 DFIC 68	United States	Ficus carica	Other	1900/01/01	Yes
<input type="checkbox"/>	USA026 PI 619319	United States	Pycnanthemum muticum	Research organization/Genebank	1988/04/26	Yes
<input type="checkbox"/>	USA390 DFIC 77	United States	Ficus carica	Other	1900/01/01	Yes
<input type="checkbox"/>	USA390 DPIS 82	Islamic Republic of Iran	Pistacia vera	Other	1939/07/06	Yes
<input type="checkbox"/>	USA020 Clze 83	United States	Zea mays	Research organization/Genebank	1982/01/14	Yes
<input type="checkbox"/>	USA026 CSOR 85	Lithuania	Sorbus koehneana	Research organization/Genebank	1989/04/04	No
<input type="checkbox"/>	USA167 PI 588795	United States	Malus hybrid	Other	1984/08/21	Yes
<input type="checkbox"/>	USA390 DJUG 105	United States	Juglans hindsii	Other	1986	Yes
<input type="checkbox"/>	USA390 DJUG 113	United States	Juglans major	Other	1986/02/28	Yes
<input type="checkbox"/>	USA004 MB 124	United States	Solanum berthaultii	Research organization/Genebank	1939/07/06	Yes
<input type="checkbox"/>	USA390 DPIS 140	Union of Soviet Socialist Republics	Pistacia vera	Other	1986/12/05	Yes

My results (2348549)

My selection (0)

About GENESYS

Help



Contact Us


Latest news

GENESYS 1.0
 GENESYS 1.0 was launched on 13 May 2011. At the time it contained...[more](#)

GRIN-Global 1.0
 GRIN-Global version 1.0 is now available. Check the GRIN-Global w...[more](#)

GENESYS Helpdesk
 If you have any questions about GENESYS or suggestions of how it ...[more](#)

The Future of Genesys, CIMMYT 2011

- “We should have Genesys phase 2”
- The group defined potential governance structure of Genesys in phase 2
- Focus areas

Partnership development

Data loading mechanisms

Data curation

Facilitating germplasm use

Crop registry integration

User friendly interface

Data attribution

Scalability through flexible design and structure

WP communication

High Performance Equipment



Genesys Taskforce 2012

- Addresses the question of Genesys future
- Provide a working system that “simply works” and is attractive to new data providers
- 18 month work plan focused on:
 - Improved data model, user interface, data uploading mechanisms
 - Better Data Publishing Agreement
 - Translations to other languages



Genesys 2013

- Global Crop Diversity Trust takes on responsibility for Genesys PGR portal
- Transition from Genesys 1 to Genesys 2
 - Keep <http://www.genesys-pgr.org> as is
 - Make improvements in a separate environment
 - Move matured improvements to public website
- Transparency: Publicly accessible source code repository, open source tools and database engines



Genesys 2013

- Revised Genesys Data provider agreement
- Updated backend
- Added support for Internationalization
 - Initial translations to FR, PT, RU, DE, ES, ZH, AR, FA
- Map server
- Improving data accessibility
 - DWC-A downloads
 - RDF Turtle

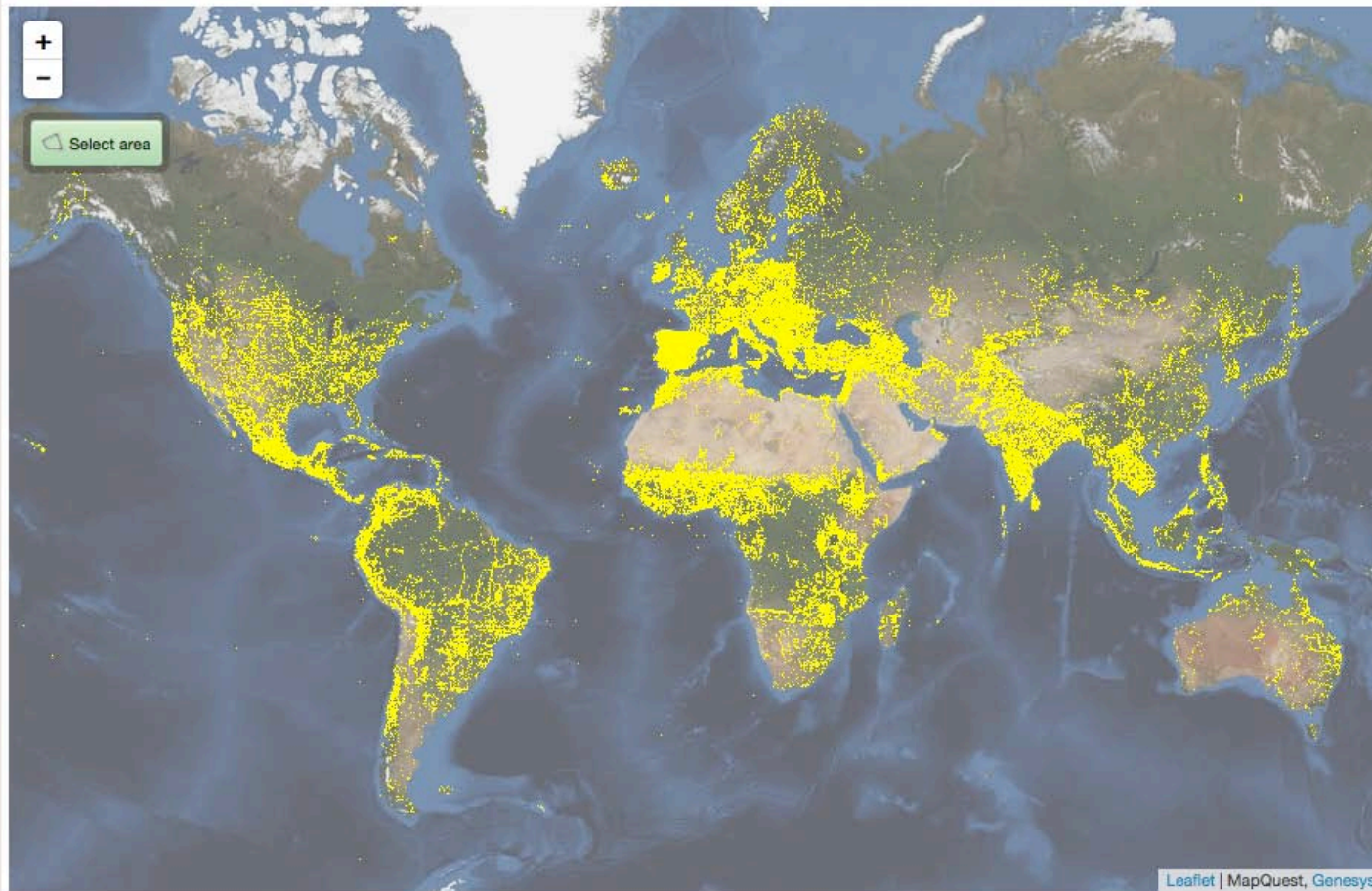


Genesys 2013

- Data management API
 - Manage data in Genesys through REST API
 - Engaged data providers in refining the API
- Requesting for germplasm
 - ITPGRFA's Easy-SMTA PIDs
 - Email notifications to holding institutes
 - Only when “Available for distribution”



Accession map

[Back](#)

Genesys 2014

- Updated portal published March 1st, 2014
- HTTPS protocol <https://www.genesys-pgr.org>
- Features updated data
 - IRRI, ICARDA, Bioversity, EURISCO, USDA GRIN, some individual genebanks
- Allows requesting for material from select genebanks
 - Integrates ITPGRFA's Easy-SMTA PIDs



Genesys 2014

- Hosted in Amazon EC2 Ireland
- 1 Load balancer with HTTPS
- 2 Clustered worker nodes (Ubuntu, Jetty)
 - Clustered cache and session information
 - Allows for updates of software without downtime
- 1 RDBMS (Amazon RDS mysql)
- 1 node with Network Filesystem (NFS)
- Hosting costs appr. 3000 EUR/year



EURISCO EURISCO

[View map](#) [View accessions...](#)

EURISCO is a web-based catalogue that provides information about *ex situ* plant collections maintained in Europe. EURISCO is based on a European network of *ex situ* National Inventories (NIs) that makes the European plant genetic resources data available everywhere in the world. More information at <http://eurisco.ecpgr.org>

Select country

Czech Republic



Albania

[Back to top!](#)
[ALB017 Albania Gene Bank](#)

2,111 accessions

Armenia

[Back to top!](#)
[ARM005 Institute of Botany](#)

1,980 accessions

[ARM006 Scientific Center of Agriculture and Plant Protection](#)

12 accessions

[ARM008 Scientific Center of Vegetables and Industrial Crops](#)

605 accessions

[ARM035 Laboratory of Plants Gene Pool and Breeding](#)

2,226 accessions

[ARM059 Scientific Center of Agrobiotechnology](#)

981 accessions

Austria

[Back to top!](#)
[AUT001 AGES Linz - Austrian Agency for Health and Food Safety / Seed Collection](#)

3,831 accessions

[AUT005 Genebank Tyrol / Tyrolean Government](#)

448 accessions

[AUT006 Division of Viticulture and Pomology, University of Natural Resources and Life Sciences](#)

302 accessions

[AUT007 Department of Crop Sciences, University of Natural Resources and Life Sciences](#)

200 accessions

[AUT023 Office of the Styrian Regional Government, Trial Station for Horticulture and Viticulture Haidegg](#)

419 accessions

NETHERLANDS



20,145 accessions registered in Genesys come from this country. [View accessions...](#)

ISO-3166 3-alpha: NLD

ISO-3166 2-alpha: NL

More information: <http://en.wikipedia.org/wiki/Netherlands>

25,329 accessions at institutes in this country

NLD037 Centre for Genetic Resources, the Netherlands Plant Research International	22,358 accessions
NLD020 Botanical Garden, University of Nijmegen	2,971 accessions

30 institutes registered in WIEWS


- NLD002** Department of Plant Breeding, Agricultural University
- NLD009** Barenbrug Holland B.V.
- NLD011** Zelder B.V.
- NLD012** General Netherlands Inspection Service for Arboricultural Crops
- NLD013** Botanic Gardens Utrecht University
- NLD015** Limagrain Genetics B.V.
- NLD019** Botanical Garden
- NLD020** Botanical Garden, University of Nijmegen
- NLD021** Wiersum Plant Breeding Station

☒ REMOVE IRGC 100 FROM LIST


This accession is under Article 15 of the International Treaty on Plant Genetic Resources for Food and Agriculture.

Safety duplicated in Svalbard Seed Vault.

The accession is available for distribution.

Holding institute	International Rice Research Institute
Location	Philippines
Accession	IRGC 100
Crop	Rice
Country of origin	 Taiwan
Genus	Oryza
Species	Oryza sativa View Oryza sativa at PHL001
Taxonomy	Oryza sativa
Sample status	Breeders Line
Germplasm storage	Long term

Collecting site



Latitude: 23.6

Longitude: 120.653889

Elevation:

Genesys ...

- Current activities
 - Resolving open issues
 - Responding to user queries
 - Working on improved search interface, git, HTML5
 - Direct management of data through a web interface
- Question:
 - Inclusion of data on *In-situ*, genetic stocks?
- Genomic data handled by other initiatives
 - ... that can link to Genesys for P, C&E data for analysis



Genesys ...

- We learn a lot about data management practices in genebanks when working with data providers
 - Data quality? Feedback?
 - GRIN-Global?
- ACCENUMB problem
 - UUID? When? Who?



Genesys ...

- Continue improving Genesys PGR portal following input from stakeholders
- Translate Genesys to other languages
- Improve integration with other systems
- Work with partners to publish new and additional data to increase information coverage
 - New Data Publishing Agreements
 - Improved Data Quality
 - Frequent data updates with easy-to-use methods



THANK YOU



**GLOBAL CROP
DIVERSITY TRUST**
A FOUNDATION FOR FOOD SECURITY