

# DOIs & GRIN-Global

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## Revision Date

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Review the [Table of Contents](#) which contains links to the document's sections.

## Table of Contents

Overview .....	2
FAO Guidelines .....	2
NPGS Implementation.....	2
Additional DOI Resources.....	2
GRIN-Global & DOIs.....	2
DOI Format .....	2
Using Name Records to Store DOIs in GG .....	3
DOIs in the Public Website.....	4
Genesys and DOIs .....	5
Future DOI Enhancements and Fixes .....	6
Index Needs to be Manually Updated .....	6

## Comments/Suggestions:

Please contact [feedback@ars-grin.gov](mailto:feedback@ars-grin.gov) with any suggestions or questions related to this document. This document is a work-in-progress.

Complete documentation on many aspects of GRIN-Global is available online at the GRIN-Global website: <https://www.grin-global.org/>

## Overview

### FAO Guidelines

DOIs are used as Permanent Unique Identifiers (PUID) in the context of the Global Information System (GLIS) of Article 17 of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

FAO's comprehensive guide "Digital Object Identifiers for Food Crops" is online at <http://www.fao.org/3/i8840EN/i8840en.pdf>

Guidelines for the optimal use of Digital Object Identifiers as permanent unique identifiers for germplasm samples are found at <http://www.fao.org/3/a-bt114e.pdf>

### NPGS Implementation

The "guides and guidelines" listed above represent the views of the FAO ITPGRFA Secretariat and some CGIAR Centers. The USDA/ARS NPGS implementation and use of DOIs differ from the preceding "guides and guidelines." NPGS personnel should follow the NPGS's instructions for implementation and use of DOIs in the context of NPGS germplasm. Presently, the NPGS is not using the DOI field.

### Additional DOI Resources

Some additional DOI resources which you may find useful:

- <https://www.genebanks.org/resources/dois/>
- <http://www.fao.org/plant-treaty/areas-of-work/global-information-system/faq/en/> (FAQs)
- <https://vimeo.com/258264024> (video)
- <https://youtu.be/o2Gg4H2QxWo> (video)

## GRIN-Global & DOIs

In server release 1.10.4, a schema change was made to add the Digital Object Identifier (DOI) field to the **Accession** table. Also, the field was added to the **Accession** dataview.

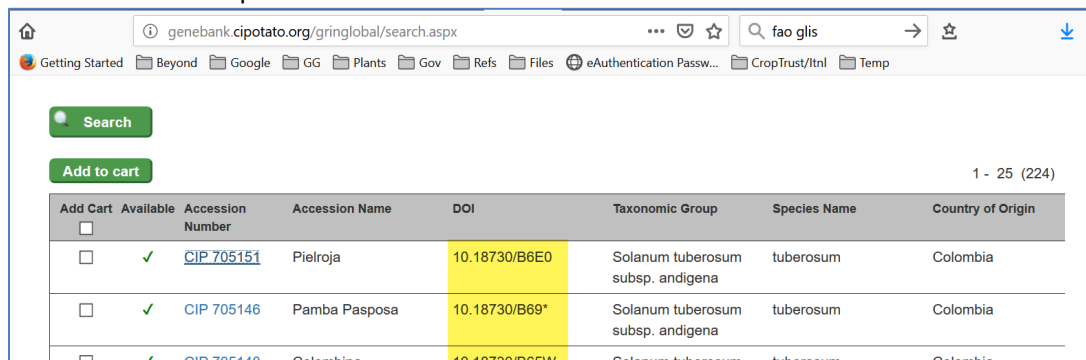
Site	Accessions	Get Accession Source	Inventory	Orders	Get Web Order Request	Cooperators	Get Crop Trait Lang	Crop	Taxonomy C
	Accession ID	Digital Object Identifier	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name		
	1000737		PI	591850		Triticum aestivum...	Belgorodskaja 5		
	1000751		PI	591851		Triticum aestivum...	Veselopodoliansk...		
	1000818		NSGC	22		Triticum aestivum...	VESELOPODOLI...		
	1000877		PI	591852		Triticum aestivum...	Ferrugineum 38		
	1000976		PI	591853		Triticum aestivum...	Ivanovskaja 12		

### DOI Format

A DOI, by itself, is not a URL. However, it can be easily converted to a URL by using the form: <https://doi.org/<doi>> (e.g. <https://doi.org/10.1109/5.771073>). When converted to a URL, the DOI points to the landing page provided by the system that registered the DOI.

## Using Name Records to Store DOIs in GG

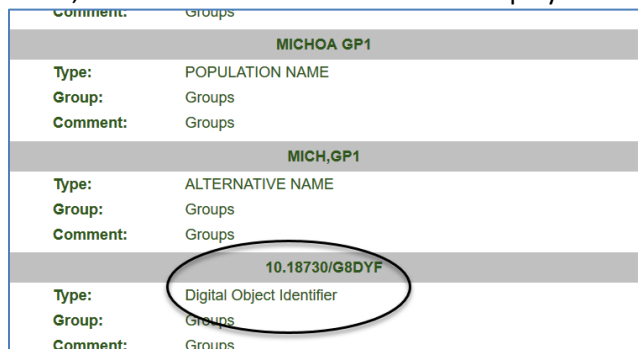
If an organization had included DOI data before the DOI field had been added to the schema, (prior to server release 1.10.4), they had the option to add the DOI data as a **Name** record in the **accession\_inventory\_name** table. Some organizations running GRIN-Global have DOI data in their database. For example:



Search results for 'fao glis' (1 - 25 (224))

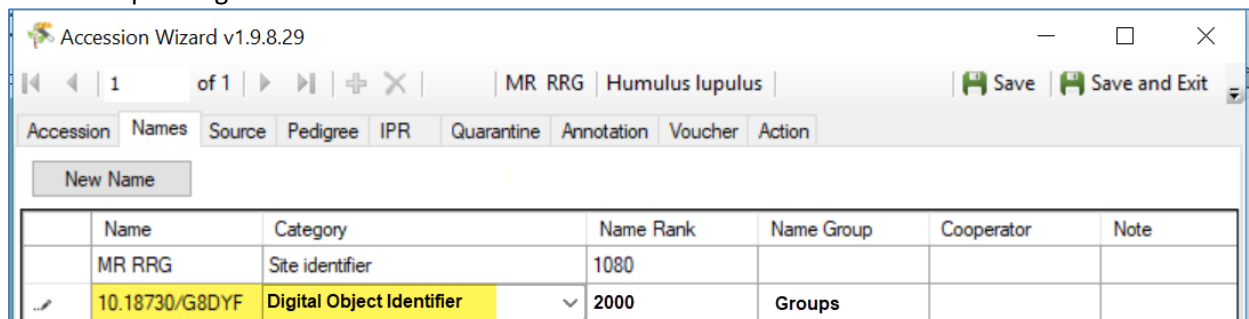
Add Cart	Available	Accession Number	Accession Name	DOI	Taxonomic Group	Species Name	Country of Origin
<input type="checkbox"/>	✓	<a href="#">CIP 705151</a>	Pielroja	10.18730/B6E0	Solanum tuberosum subsp. andigena	tuberosum	Colombia
<input type="checkbox"/>	✓	<a href="#">CIP 705146</a>	Pamba Pasposa	10.18730/B69*	Solanum tuberosum subsp. andigena	tuberosum	Colombia
<input type="checkbox"/>	✓	<a href="#">CIP 705140</a>	Colombina	10.18730/B65W	Solanum tuberosum	tuberosum	Colombia

In GG, an accession's DOI Name can be displayed on the Public Website accession detail page:



Comment	Groups
<b>MICHOA GP1</b>	
Type:	POPULATION NAME
Group:	Groups
Comment:	Groups
<b>MICH,GP1</b>	
Type:	ALTERNATIVE NAME
Group:	Groups
Comment:	Groups
<b>10.18730/G8DYF</b>	
Type:	Digital Object Identifier
Group:	Groups
Comment:	Groups

The corresponding **Name** record as seen in the Curator Tool:



Accession Wizard v1.9.8.29 | MR RRG | Humulus lupulus | Save | Save and Exit

Accession | **Names** | Source | Pedigree | IPR | Quarantine | Annotation | Voucher | Action

New Name

	Name	Category	Name Rank	Name Group	Cooperator	Note
	MR RRG	Site identifier	1080			
	10.18730/G8DYF	Digital Object Identifier	2000	Groups		



For complete information on **Names** records and directions for adding to the database, refer to the Names section in the online **Accessions** document at [https://www.grin-global.org/docs/gg\\_accessions\\_and\\_passport\\_data.docx](https://www.grin-global.org/docs/gg_accessions_and_passport_data.docx)

## DOIs in the Public Website


The DOI information as of Server Release 2.3.8 displays on the search results and the Accession Detail Pages:

Basic InfoSource InfoShow all columnsShow/hide columnsShow 10 rowsExcel

Showing 1 to 1 of 1 entries

Search:

Previous1Next

ACCESSION	PLANT NAME	TAXONOMY	DOI	ORIGIN	GENEBANK	AVAILABILITY	IMAGE
<input type="checkbox"/> <a href="#">MAR 1 rrg</a>	MAR 1 rrg	<i>Humulus lupulus L.</i>	10.1109/5.771073			NC7	

Details for: MAR 1 rrg, *Humulus lupulus L.*, MAR 1 rrg

Summary

Passport

Taxonomy

Other

Pedigree

IPR

Core Passport Data

Taxonomy:

*Humulus lupulus L.*

Top Name:

MAR 1 rrg

Origin:

—

Maintained:

[North Central Regional PI Station](#)

Received by NPGS:

30 Apr 2024

DOI:

10.1109/5.771073

## Genesys and DOIs



Genesys also uses the text “10.18730/1PGAP” as the link, not the full URL. <https://www.genesys-pgr.org/10.18730/1PGAP>

The Genesys logo, featuring a green stylized leaf icon next to the word 'Genesys' in white text on a dark background.

This accession is in the Multilateral System of the ITPGRFA.

**Accession profile: IRGC 4**

DOI	<a href="https://www.genesys-pgr.org/10.18730/1PGAP">10.18730/1PGAP</a>
Holding institute	PHL001 <a href="#">International Rice Research Institute</a>
Location	<a href="#">Philippines</a>
Accession number	IRGC 4
Country of origin	<a href="#">Malaysia</a>

# Appendix: Change Notes

May 8, 2024

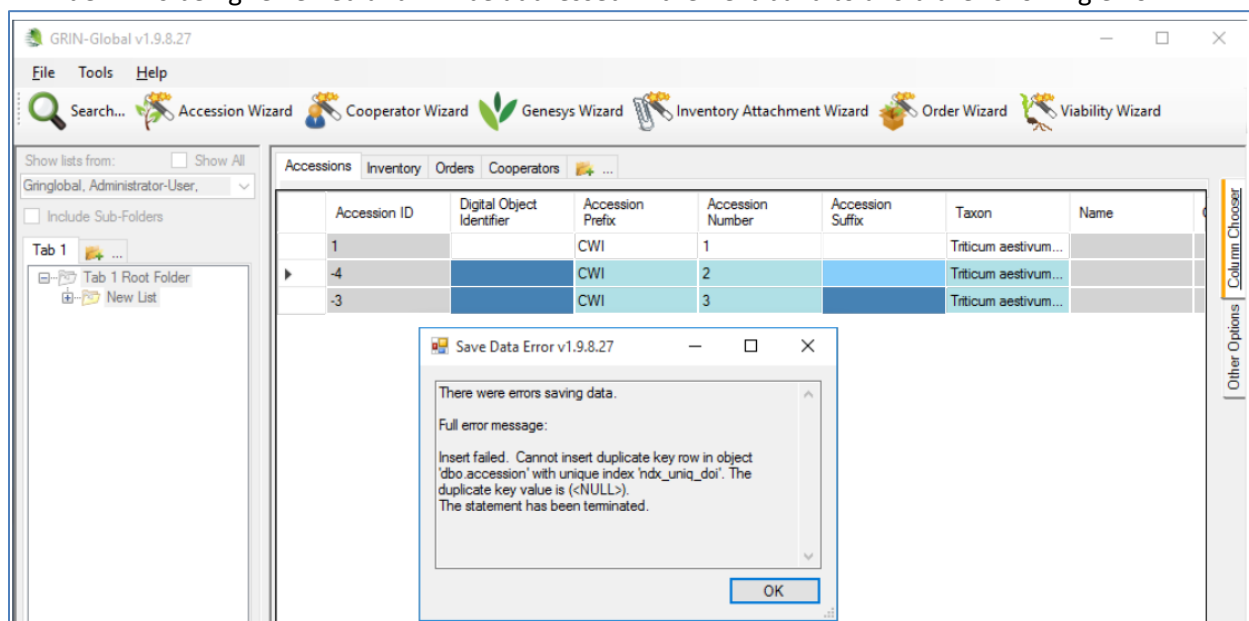
- Added new DOI screens

The following text will be archived; no longer relevant in current versions.

## Future DOI Enhancements and Fixes

### Index Needs to be Manually Updated

An index fix is being reviewed and will be addressed in the next build to avoid the following error:



In the meantime, until that fix is available in a released build, the GG administrator should run the following in SSMS to rebuild the index correctly:

```
DROP INDEX accession.ndx_uniq_doi
-- need to use filter to allow multiple null rows
CREATE UNIQUE NONCLUSTERED INDEX ndx_uniq_doi
ON dbo.accession(doi)
WHERE doi IS NOT NULL;
```



