

Multi-Crop Passport Descriptors (in GRIN-Global)



Revision Date

April 22, 2021

The FAO/BIOVERSITY Multi-Crop Passport Descriptors (MCPD V.2.1) is the result of a thorough revision of the original publication released by FAO/IPGRI in 2001. This document describes how GRIN-Global handles these descriptors. See the [table of contents](#) for the Descriptors.

The FAO document can be found at:

<https://www.bioversityinternational.org/e-library/publications/detail/faobioversity-multi-crop-passport-descriptors-v21-mcpd-v21/>

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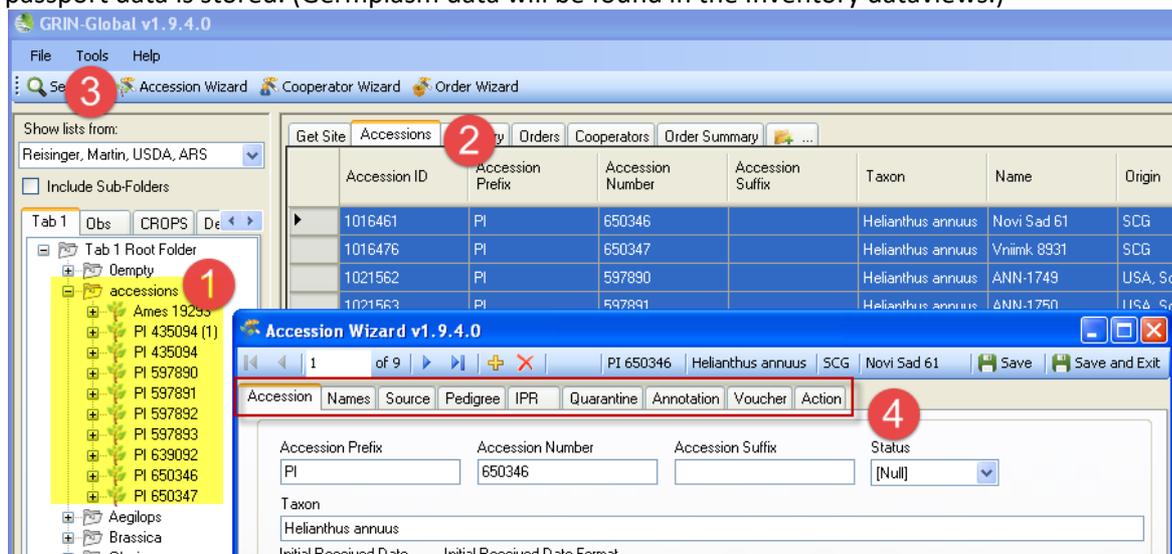
Comments/Suggestions

Please contact feedback@grin-global.org with any suggestions or questions related to this document. The [Appendix](#) revision notes contains this document's revision notes.

How are Passport Descriptors handled in the Curator Tool?

In general, passport data is stored in the Accession tables. “Tables” (plural) because there is the main Accession table and multiple children accession tables. There are also multiple accession_inventory tables which are children to the main accession table. In the Curator Tool, the **Accession** and the **Accession_Inventory** dataviews are used to access this data.

For a specific accession, the simplest way to display or edit its passport data is to select the accession record in the data grid (the accession dataview is the displayed dataview) and then start the accession wizard. Using the wizard, you can easily review the related accession dataviews where much (but not all) of the passport data is stored. (Germplasm data will be found in the Inventory dataviews.)



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The following table indicates where passport data is stored in GRIN-Global:

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<p>0. Persistent Unique Identifier (PUID)</p> <p>The Secretariat of the International Treaty on PGRFA is facilitating the assignment of a persistent unique identifier (PUID), in the form of a DOI, to PGRFA at the accession level. (http://www.planttreaty.org/doi).</p> <p>See also: http://www.fao.org/3/I8840EN/i8840en.pdf</p>	<p>Accession dataview: Digital Object Identifier field</p> <p>Prior to GG server version 1.10.4, DOIs were handled by creating an accession_inventory_name record.</p> <p>In server release 1.10.4, the DOI field was added to the schema and the accession dataview was modified. In later releases, an index and the Public Website will be modified to handle searches for DOIs.</p> <p>Use the accession dataview to edit the DOI field, labeled as Digital Object Identifier. Refer to the Guide https://www.grin-global.org/docs/gg_doi.docx for directions for using DOI's in GG.</p>
<p>1. Institute Code (INSTCODE)</p> <p>FAO WIEWS code of the institute where the accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). For institutes, the codes from FAO WIEWS should be used. The current set of Institute Codes is available from the FAO WIEWS site (http://www.fao.org/wiews). For those institutes not yet having an FAO Code, or for those with 'obsolete' codes, see 'Common formatting rules (v)'</p>	<p>Site dataview: FAO Institute Number field</p> <p>In GRIN-Global, institute and organization data is stored in the Cooperator table. Note that this table does not have a field to hold FAO WIEWS code.</p> <p>However, the accession record has a MAINTENANCE SITE field – this field is Read-only and is the site with which the accession owner is associated. To get to the FAO WIEWS code, you need the accession's MAINTENANCE SITE field and join it to the Site table.</p> <p>Use the Site dataview to edit the Site records to maintain the FAO institute codes.</p>
<p>2. Accession Number (ACCENUMB)</p> <p>This number serves as a unique identifier for accessions within a genebank, and is assigned when a sample is entered into the genebank collection (e.g. PI 113869)</p>	<p>Accession dataview: Accession -Prefix, -Number and -Suffix fields</p> <p>Collectively, these three fields comprise the Accession's identifier. Every accession must have a unique identifier; an organization can use up to three fields to create this identifier. Examples: PI 500001 or VIR 123456 2001. If the organization only uses accession_number_part1 for the identifier, then each one must be unique. If the organization uses either of the other two fields -- accession_number_part2 or _part3, then the two or three accession_number_parts, when combined, must be unique.</p>
<p>3. Collecting Number (COLLNUMB)</p> <p>Original identifier assigned by the collector(s) of the sample, normally composed of the name or initials of the collector(s) followed by a number (e.g. FM9909"). This identifier is essential for identifying duplicates held in different collections.</p>	<p>Accession_Inv_Name dataview: Name field</p> <p>Input name fields in the Accession_Inv_Name dataview. Although an Accession can have multiple names (and therefore multiple name records), only one name can be listed in the Accession dataview. (Some refer to this name as the "top name.") If an accession does not have any related records in the accession_inv_name table, the Name field is empty. When an accession has multiple related name records, the name displayed in the Accession dataview is the name with the lowest Name Rank value in the Accession_Inv_Name table. *</p>
<p>4. Collecting institute Code (COLLCODE)</p>	<p>Refer to the GRIN-Global column for Institute Code.</p>

MCPD*	GRIN-Global
<p>FAO WIEWS code of the institute collecting the sample. If the holding institute has collected the material, the collecting institute code (COLLCODE) should be the same as the holding institute code (INSTCODE). Follows INSTCODE standard.</p>	
<p>4.1 Collecting Institute Name (COLLNAME) Name of the institute collecting the sample. This descriptor should be used only if COLLCODE cannot be filled because the FAO WIEWS code for this institute is not available.</p>	<p>The Cooperator table is used to store to cooperators (individuals or organizations). Add the Institute to the Cooperator table via the Cooperator dataview or the Cooperator wizard. For each accession, source cooperators are stored in the Accession Source record. The cooperators may be donors, collectors, or developers. (Recommendation: Use the Accession Wizard to supply the source records and cooperators.)</p>
<p>4.1.1 Collecting Institute Address (COLLINSTADDRESS) Address of the institute collecting the sample. This descriptor should be used only if COLLCODE cannot be filled because the FAO WIEWS code for this institute is not available.</p>	<p>The address of the institute is stored in the institute’s cooperator record in the Cooperator table.</p>
<p>4.2 Collecting Mission Identifier (COLLMISSID) Identifier of the collecting mission used by the Collecting Institute (e.g. CIATFOR-052, CN426)</p>	<p>Three tables are involved. (1) In the Accession Inventory Name dataview, create an inventory Name; for Category, select Exploration identifier. In the record, create a name. (2) Exploration dataview: create an exploration record using the same name as used in step 1. (3) Exploration map dataview: record the cooperators involved with the mission; the map makes it possible to relate (map) multiple collectors to one mission.</p>
<p>5. Genus (GENUS) Genus name for taxon. Initial uppercase letter required. 6. Species (SPECIES) Specific epithet portion of the scientific name in lowercase letters. Following abbreviation is allowed: ‘sp.’</p>	<p>Accession dataview: Taxon field When GRIN-Global is installed, an organization has the option to load the taxonomy tables as used in the United States. However, an organization can omit these tables, it can edit them, and it can supplement the tables with the taxonomies preferred by the organization. The recommendation is to use the GG taxonomy tables as they have been vetted and are continuously maintained.</p>
<p>7. Species Authority (SPAUTHOR) Provide the authority for the species name. 8. Subtaxa (SUBTAXA) Subtaxa can be used to store any additional taxonomic identifier. Following abbreviations are allowed: “subsp.” (for subspecies); “convar.” (for convariety); “var.” (for variety); “f.” (for form). 9. Subtaxa Authority (SUBTAUTHOR)</p>	<p>Genus and Species dataviews The Genus dataview has a Genus Authority field. The Species dataview contains the additional taxonomic identifiers and their respective authority fields: Species, Subspecies, Variety, Sub-variatal, Forma, and Taxon.</p>

MCPD*	GRIN-Global
Provide the subtaxa authority at the most detailed taxonomic level.	
<p>10. Common Crop Name (CROPNAME)</p> <p>Name of the crop in colloquial language, preferably English (i.e. 'malting barley', 'cauliflower', or 'white cabbage')</p>	<p>Crop dataview</p> <p>Use the Crop dataview to store crop names and descriptions.</p> <p>In GG, the Crop information is indirectly related to the Accession via the Observation records for the Accession. (Only if an accession has observations will there be a relationship to the Crop table (and Crop field).</p>
<p>11. Accession Name (ACCENAME)</p> <p>Either a registered or other formal designation given to the accession. First letter uppercase. Multiple names separated with semicolon without space. For example: Rheinische Vorgebirgstrauben;Emma;Avlon</p>	Refer to the description for Collecting Number .
<p>12. Acquisition Date [YYYYMMDD] (ACQDATE)</p> <p>Date on which the accession entered the collection where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or "00" (double zero).</p>	<p>Use the Accession Source dataview.</p> <p>For each accession, the acquisition dates are stored in the Accession Source record. (Recommendation: Use the Accession Wizard to supply the source records and cooperators.)</p>
<p>13. Country of Origin (ORIGCTY)</p> <p>3-letter ISO 3166-1 code of the country in which the sample was originally collected (e.g. landrace, crop wild relative, farmers' variety), bred or selected (breeding lines, GMOs, segregating populations, hybrids, modern cultivars, etc.).</p>	<p>Use the Accession_Source dataview. Select the Is Origin? field; select the source from the Geography field.</p> <p>(Recommendation: Use the Accession Wizard to supply the source records.)</p>
<p>(Use 14-16 only if accession was collected)</p> <p>14. Location of Collecting Site (COLLSITE)</p> <p>Location information below the country level that describes where the accession was collected.</p>	Use the Accession_Source dataview to store the collector Formatted Locality data.
<p>15. Geographical Coordinates</p> <p>For latitude and longitude coordinates, two alternative formats are proposed, but the one reported by the collecting mission should be used</p>	<p>GG stores the decimal formats (15.1 and 15.3) only. If you need to store the degree formats, you could store these in the Note field.</p> <p>There are many converters online, such as one at http://andrew.hedges.name/experiments/convert_lat_long/</p>
<p>15.1 Latitude of Collecting Site (Decimal degrees format) (DECLATITUDE)</p> <p>Latitude expressed in decimal degrees. Positive values are North of the Equator; Negative values are South of the Equator (e.g. -44.6975)</p> <p>15.2 Latitude of Collecting Site (LATITUDE)</p>	For each accession, the DECLATITUDE is stored in the Accession Source record. (Recommendation: Use the Accession Wizard or Accession_Source dataview to supply the Latitude field.)

MCPD*	GRIN-Global
<p>Degree (2 digits) minutes (2 digits), and seconds (2 digits) followed by N (North) or S (South) (e.g. 103020S). Every missing digit (minutes or seconds) should be indicated with a hyphen. Leading zeros are required (e.g. 10----S; 011530N; 4531--S).</p>	
<p>15.3 Longitude of Collecting Site (Decimal degrees format) (DECLONGITUDE) Longitude expressed in decimal degrees. Positive values are East of the Greenwich Meridian; negative values are West of the Greenwich Meridian. (e.g. 120.9123)</p> <p>15.4 Longitude of collecting site (LONGITUDE) Degree (3 digits), minutes (2 digits), and seconds (2 digits) followed by E (East) or W (West) (e.g. 0762510W). Every missing digit (minutes or seconds) should be indicated with a hyphen. Leading zeros are required (e.g. 076----W).</p>	<p>The two are mutually exclusive formats for Longitude. GRIN-Global expects latitude data in the Decimal Degrees format.</p> <p>For each accession, the DECLONGITUDE is stored in the Accession Source record.</p> <p>(Recommendation: Use the Accession Wizard or the Accession_Source dataview to supply the Longitude field.)</p>
<p>15.5 Coordinate Uncertainty (COORDUNCERT) Uncertainty associated with the coordinates in meters. Leave the value empty if the uncertainty is unknown.</p>	<p>Coordinate Uncertainty is stored in the Accession Source record. Use the Accession Wizard or the Accession_Source dataview to supply the Uncertainty field.</p>
<p>15.6 Coordinate Datum (COORDDATUM) The geodetic datum or spatial reference system upon which the decimal latitude and longitude coordinates are based (WGS84, ETRS89, NAD83). The GPS uses the WGS84 datum.</p>	<p>Georeference Datum is stored in the Accession Source record. Use the Accession Wizard or the Accession_Source dataview to supply the Georeference Datum field.</p>
<p>15.7 Georeferencing Method (GEOREFMETH) The Georeferencing Method used (GPS, determined from map, gazetteer, or estimated using software. Leave the value empty if the Georeferencing Method is unknown.</p>	<p>Georeference Protocol is stored in the Accession Source record. Use the Accession Wizard or the Accession_Source dataview to supply the Georeference Protocol field.</p>
<p>16. Elevation of Collecting Site (ELEVATION) Elevation of collecting site expressed in metres above sea level. Negative values are allowed.</p>	<p>Elevation Protocol is stored in the Accession Source record. Use the Accession Wizard or the Accession_Source dataview to supply the Elevation field.</p>
<p>17. Collecting Date of Sample [YYYYMMDD] (COLLDATE) Collecting date of the sample, where YYYY is the year, MM is the month, and DD is the day. Missing data (MM or DD) should be</p>	<p>Source Date is stored in the Accession Source table. Use the Accession Wizard or the Accession_Source dataview to supply the Source Date field.</p>

MCPD*	GRIN-Global
indicated with hyphens or (00) [double – zero.]	
<p>18. Breeding Institute Code (BREDCODE)</p> <p>FAO WIEWS code of the institute breeding the sample. If the holding institute has collected the material, the breeding institute code (BREDCODE) should be the same as the holding institute code (INSTCODE). Follows INSTCODE standard.</p>	Refer to the GRIN-Global column for Institute Code .
<p>18.1. Breeding Institute Name (BREDNAME)</p> <p>Name of the institute or person who bred the material. This descriptor should be used only if BREDCODE cannot be filled because the FAO WIEWS code for this institute is not available.</p>	<p>The Cooperator table is used to store to cooperators (individuals or organizations). Add the Institute to the Cooperator table via the Cooperator dataview or the Cooperator wizard.</p> <p>For each accession, cooperators are stored in the Accession Source record. The cooperators may be donors, collectors, or developers. (Recommendation: Use the Accession Wizard to supply the source records and cooperators.)</p>
<p>19. Biological Status of Accession (SAMPSTAT)</p>	<p>Coding scheme...wild, weedy, traditional ...</p> <p>Add the FAO codes to the IMPROVEMENT_LEVEL Code Group. Used in the Accession dataview; Level of Improvement field.</p>
<p>20. Ancestral Data (ANCEST)</p> <p>Information about pedigree or other description of ancestral information (e.g. parent variety in case of mutant or selection).</p>	Use the Accession Pedigree dataview.
<p>21. Collecting / Acquisition Source (COLL SRC)</p> <p>The Coding scheme ...</p>	<p>Specific and General Codes...</p> <p>Add the FAO values to the ACCESSION_SOURCE_HABITAT_TYPE Code Group -- Used in the Collecting or Acquisition Source field in the Accession Source dataview</p>
<p>22. Donor Institute Code (DONORCODE)</p> <p>FAP WIEWS code of the donor institute.</p>	<p>The Cooperator table is used to store to cooperators (individuals or organizations). Add the Institute to the Cooperator table via the Cooperator dataview or the Cooperator wizard.</p> <p>For each accession, cooperators are stored in the Accession Source record. The cooperators may be donors, collectors, or developers. (Recommendation: Use the Accession Wizard to supply the source records and cooperators.)</p>
<p>22.1 Donor Institute Name (DONORNAME)</p>	The Organization data is stored in the Cooperator table – use the Cooperator Wizard or dataview to enter cooperator data.
<p>23. Donor Institute Number (DONORNUMBER)</p>	<p>Accession Inventory Name dataview: Name field</p> <p>Input name fields in the Accession_Inv_Name dataview. Although an Accession can have multiple names (and therefore multiple name records), only one name can be listed in the Accession dataview. (Some refer to this name as the “top name.”) If an accession does not have any related records in the</p>

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	accession_inv_name table, the Name field is empty. When an accession has multiple related name records, the name displayed in the Accession dataview is the name with the lowest Name Rank value in the Accession_Inv_Name table. *
24. Other Identifiers Associated with the Accession (OTHERNUMB)	Refer to the GRIN-Global description for Collecting Number .
25. Location of Safety Duplicates (DUPLSITE) FAO WIEWS code of the institute(s) where a safety duplicate of the accession is maintained.	Accession dataview; Backup Location 1 and Backup Location 1 fields. The FAO Institute Numbers are stored In the Site record for each site.
25.1 Institute Maintaining the Safety Duplicate (DUPLINSNAME) Name of the institute(s) where a safety duplicate of the accession is maintained.	The Backup Location 1 and Backup Location 1 fields use the GG Site Codes. The Site Long Name FAO Institute Numbers are stored In the Site record for each site.
26. Type of Germplasm Storage (STORAGE)	Add the FAO values to GERMPLASM_FORM group code
27. MLS Status of the Accession (MLSSTAT) The status of an accession with regards to the Multilateral System (MLS) of the International Treaty on Plant Genetic resources for Food and Agriculture. 0 – No (Not included) 1 – Yes (Included) 99 – Other (Elaborate in REMARKS) section. -	Currently GG has no equivalent field. [tbd]
28. Remarks (REMARKS) The Remarks field is used to add notes.	Both the Accession and the Accession_Source dataviews have Note fields.

* Most of the text in the MCPD column is taken directly from the [Multi-crop Passport Descriptors \(MCPD V.2.1\)](#) publication.

Appendix: Document Revision Notes

– April 22, 2021

- minor formatting changes

– April 3, 2019

- added the 0. PUID (DOI) field
- corrected several typos
- updated the reference to **FAO Multi-Crop Passport Descriptors V.2.1**

– August 21, 2017

- updated the link to **FAO Multi-Crop Passport Descriptors V.2.1**

– July 21, 2015

- included additional notes regarding the “site” table under INSTCODE