

Registration procedure for European Material under the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture and for the European Collections (AEGIS)

(last modified 24 June 2008)

Background

Article 11 (Coverage of the Multilateral System) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) outlines the procedure to establish the Multilateral System (MLS):

11.1 In furtherance of the objectives of conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of benefits arising out of their use, as stated in Article 1, the Multilateral System shall cover the plant genetic resources for food and agriculture listed in Annex I, established according to criteria of food security and interdependence.

11.2 The Multilateral System, as identified in Article 11.1, shall include all plant genetic resources for food and agriculture listed in Annex I that are under the management and control of the Contracting Parties and in the public domain. With a view to achieving the fullest possible coverage of the Multilateral System, the Contracting Parties invite all other holders of the plant genetic resources for food and agriculture listed in Annex I to include these plant genetic resources for food and agriculture in the Multilateral System.

11.3 Contracting Parties also agree to take appropriate measures to encourage natural and legal persons within their jurisdiction who hold plant genetic resources for food and agriculture listed in Annex I to include such plant genetic resources for food and agriculture in the Multilateral System.

11.5 The Multilateral System shall also include the plant genetic resources for food and agriculture listed in Annex I and held in the ex situ collections of the International Agricultural Research Centres of the Consultative Group on International Agricultural Research (CGIAR), as provided in Article 15.1a, and in other international institutions, in accordance with Article 15.5.

In its report to the Second Session of the Governing Body of the ITPGR (IT/GB-2/07/Report) “the Governing Body considered document, *Progress in the Inclusion of Plant Genetic Resources for Food and Agriculture in the Multilateral System* (IT/GB-2/07/11). It requested the Secretary to continue gathering information on the assessment of progress in the inclusion of plant genetic resources in the Multilateral System, **through cost-effective means, including gathering information from National Focal Points**. Contracting Parties requested help to develop information packages on key elements of the Treaty as a means to enhance their implementation activities. The Governing Body noted with appreciation that almost 100,000 samples had already been distributed under the terms of the Standard Material Transfer Agreement by the International Agricultural Research Centres of the Consultative Group on International Agriculture, within the first nine months of 2007.”

Additional information related to the inclusion of plant genetic resources in the Multilateral System of the Treaty is available in document IT/GB-2/07/inf.4. “This information document reports from a Technical Consultation of Stakeholders which stated *inter alia* in relation to the transaction costs and integration with existing systems:

„A. Transaction analysis

It was recognized that information technology support for the Multilateral System could provide various forms of management information to the Governing Body (for example, on progress in including the plant genetic resources for food and agriculture held by natural and legal persons in the Multilateral System⁵), but it was noted that such information generation should be non-invasive, should not require tracking of individual accessions, and should not impose an undue burden for reporting.“

„B. Integration with existing systems

(a) Genebanks and institutions involved in the management of plant genetic resources for food and agriculture already control a number of sophisticated information systems, and many initiatives are underway to promote common standards. This is a key factor in this early period of operationalization of the Multilateral System, in order to facilitate implementation and ensure mutually compatible procedures. It was also recognised that solutions for integration into the Multilateral System will need to result in minimal adjustments to existing systems.

(b) In this context, the Multi-Crop Passport Descriptions (MCPDs) were recognized as providing a framework in which to define what is required as passport-associated information. Bioversity International will be revising the MCPDs in the near future.

(c) Also stressed was the need to adequately fund and support the essential elements on which the Multilateral System will need to be based, including international, regional and national databases, such as SINGER, EURISCO and USDA-GRIN.“

Inclusion of European Material

Since IT/GB-2 in October 2007, some European institutes have included material into the Multilateral System:

- Centre for Genetic Resources (CGN), Wageningen University and Research Centre, Wageningen, Netherlands;
- Institute of Fruit Breeding (IOZ), Federal Research Centre for Cultivated Plants - Julius Kuehn Institute, Dresden-Pillnitz, Germany and
- Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, Germany)

However, there is no complete overview of all institutes and material in Europe; hence there could be other institutes which have also included material into the Multilateral System but are not known to the author(s) of this paper.

If access to PGRFA under the Multilateral System should be facilitated as it is foreseen under Article 12 of the ITPGR transparency of the institutes and the material included would be required. This would be a helpful information for users when searching for interesting PGRFA.

Following the recommendations from the stakeholder consultation it would be suggested to reduce transaction costs and base it upon existing information systems.

The existing system in Europe is the system of National Inventories (NI) and the transfer of data from these NIs to EURISCO. The data exchange is based upon the MCPD as adapted to the EURISCO exchange format (see Annex 1)

Recommended Procedure

Best way would be to add an additional descriptor for the MLS registry status. While amending the exchange format now it would be useful to already foresee another field which would clarify the inclusion of the accession into the European Collection of AEGIS.

Hence, two descriptors MLS and AEGIS registry status, where the institutes mark their accessions according to their respective status, should be introduced into the EURISCO exchange format.

Proposed table (for discussion):

MLS and AEGIS registry status descriptors for EURISCO	
34*. MLS Status	(MLSSTAT)
The coded status of an accession with regard to the Multilateral System (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture. Provides the information, whether the accession is included in the MLS.	
0 – not part of the MLS	
1 – part of the MLS	
If the MLS status is unknown, the field stays empty	
35*. AEGIS Status	(AEGISSTAT)
The coded status of an accession with regard to the European Genebank Integrated System (AEGIS). Provides the information, whether the accession is conserved for AEGIS.	
0 – not part of AEGIS	
1 – part of AEGIS	
If the AEGIS status is unknown, the field stays empty	

* consecutive EURISCO descriptor number, pending on the decision to include these new descriptors.

For this solution only small adaptation of the data structure in the NI / EURISCO would be necessary.

The exchange of this information should happen in the course of updating the NI and EURISCO respectively, e.g. at least on a yearly base. EURISCO then would serve as regional interface for Europe to report on Material included in the MLS to the Treaty Secretariat.

For this purpose, countries will have to declare to the institution maintaining EURISCO (at present Bioversity International) and to the Treaty Secretariat that they will use EURISCO as registration tool for the Material, that will be included in the MLS.

ANNEX 1

ESTABLISHMENT OF AN EUROPEAN PLANT GENETIC RESOURCES INFORMATION INFRA-STRUCTURE



EURISCO Descriptors

for uploading information from National Inventories to EURISCO

Introduction

This descriptor list is used for uploading information from the National Inventories to EURISCO, and thus purely a format of data exchange.

The list is an extension of the FAO/IPGRI multi-crop passport descriptors (MCPD) which were published December 2001, developed jointly by IPGRI and FAO, with input from many documentation specialists worldwide, to provide international standards to facilitate germplasm passport information exchange. All MCPD are included, without change and with the same format rules, in the current list. Six descriptors were added for the specific purposes of EURISCO: the first descriptor, identifying the National Inventory and the final five allowing the incorporation of information relevant to EURISCO, which otherwise would not fit in the MCPD.

General format rules

Following format rules, as copied from the MCPD-list, apply to all fields:

- If a field allows multiple values, these values should be separated by a semicolon (;) without space(s). (i.e. Accession name: “Rheinische Vorgebirgstrauben;Emma;Avlon”)
- A field for which no value is available should be left empty (i.e. Elevation). If data are exchanged in ASCII format for a field with a missing numeric value, it should be left empty. If data are exchanged in a database format, missing numeric values should be represented by generic NULL values.
- Dates are recorded as YYYYMMDD. If the month and/or day are missing this should be indicated with hyphens. Leading zeros are required (i.e. 197506--, or 1975----).
- Latitude and longitude are recorded in an alphanumeric format. If the minutes or seconds are missing, this should be indicated with hyphens. Leading zeros are required.
- For coding countries three-letter ISO 3166-1 codes are used (including the codes that are no longer in use in the ISO 3166-1, such as DDR).¹

¹ The ISO 3166-1 Code List can be found at: <http://www.un.org/Depts/unsd/methods/m49alpha.htm>. Country or area numerical codes added or changed are not available on line, but can be obtained from IPGRI [t.metz@cgiar.org].

- For coding institutes the FAO Institute Codes should be used as maintained by the FAO. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a three-digit number.²
- The preferred language for free text fields is English (i.e. Location of collecting site and Remarks).

Descriptors

The descriptors are numbered according to the FAO/IPGRI multi-crop passport descriptors (MCPD); the first descriptor (numbered 0) and the last five (numbered 29-33) are additional, and specific to this EURISCO Descriptor List. Only the four fields identifying the accession are mandatory, all other fields are highly recommended. The mandatory fields are NICODE (0), INSTCODE (1), ACCENUMB (2) and GENUS (5). The combination of these fields has to be unique.

EURISCO DESCRIPTORS	
0. National Inventory code Code identifying the National Inventory; the code of the country preparing the National Inventory. Exceptions are possible, if agreed with EURISCO such as NGB. Example: NLD	(NICODE)
1. Institute code FAO Institute Code of the institute where the accession is maintained. Example: NLD037	(INSTCODE)
2. Accession number This number serves as a unique identifier for accessions within a genebank collection, and is assigned when a sample is entered into the genebank collection. Example: CGN00254	(ACCENUMB)
3. Collecting number Original number assigned by the collector(s) of the sample, normally composed of the name or initials of the collector(s) followed by a number. This number is essential for identifying duplicates held in different collections. Example: FA90-110	(COLLNUMB)
4. Collecting institute code 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). Example: NLD037	(COLLCODE)
5. Genus Genus name for taxon, in latin. Initial uppercase letter required. Example: Allium	(GENUS)
6. Species	(SPECIES)

² These codes are available from <http://apps3.fao.org/wiews/> for registered WIEWS users. From the Main Menu select: 'PGR' and 'Download'. If new Institute Codes are required, they can be generated online by national WIEWS correspondents, or by the FAO WIEWS administrator [Stefano.Diulgheroff@fao.org].

Specific epithet portion of the scientific name, in latin, in lowercase letters. Following abbreviation is allowed: 'sp.'	
Example: paniculatum	
7. Species authority	(SPAUTHOR)
The authority for the species name.	
Example: L.	
8. Subtaxa	(SUBTAXA)
Subtaxa can be used to store any additional taxonomic identifier, in latin. Following abbreviations are allowed: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form).	
Example: subsp. fuscum	
9. Subtaxa authority	(SUBTAUTHOR)
The subtaxa authority at the most detailed taxonomic level.	
Example: (Waldst. et Kit.) Arc.	
10. Common crop name	(CROPNAME)
Name of the crop in colloquial language, preferably English.	
Example: malting barley	
Example: cauliflower	
11. Accession name	(ACCENAME)
Either a registered or other formal designation given to the accession. First letter uppercase. Multiple names separated with semicolon without space.	
Example: Rheinische Vorgebirgstrauben; Emma; Avlon	
12. Acquisition date	(ACQDATE)
Date on which the accession entered the collection as YYYYMMDD. Missing data (MM or DD) should be indicated with hyphens. Leading zeros are required.	
Example: 1968----	
Example: 20020620	
13. Country of origin	(ORIGCTY)
Code of the country in which the sample was originally collected.	
Example: NLD	
14. Location of collecting site	(COLLSITE)
Location information below the country level that describes where the accession was collected. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point	
Example: 7 km south of Curitiba in the state of Parana	
15. Latitude of collecting site	(LATITUDE)
Degree (2 digits) minutes (2 digits), and seconds (2 digits) followed by N (North) or S (South). Every missing digit (minutes or seconds) should be indicated with a hyphen. Leading zeros are required	
Example: 10----S	
Example: 011530N	
Example: 4531--S	
16. Longitude of collecting site	(LONGITUDE)
Degree (3 digits), minutes (2 digits), and seconds (2 digits) followed by E (East) or W (West). Every missing digit (minutes or seconds) should be indicated with a hyphen. Leading zeros are required.	
Example: 0762510W	
Example: 076----W	
17. Elevation of collecting site	(ELEVATION)

Elevation of collecting site expressed in meters above sea level. Negative values are allowed. Example: 763	
18. Collecting date of sample	(COLLDATE)
Collecting date of the sample as YYYYMMDD. Missing data (MM or DD) should be indicated with hyphens. Leading zeros are required. Example: 1968---- Example: 20020620	
19. Breeding institute code	(BREDCODE)
FAO Institute Code of the institute that has bred the material.	
20. Biological status of accession	(SAMPSTAT)
The coding scheme proposed can be used at 3 different levels of detail: either by using the general codes (in boldface) such as 100, 200, 300, 400 or by using the more specific codes such as 110, 120 etc.	
<ul style="list-style-type: none"> 100) Wild <ul style="list-style-type: none"> 110) Natural 120) Semi-natural/wild 200) Weedy 300) Traditional cultivar/landrace 400) Breeding/research material <ul style="list-style-type: none"> 410) Breeder's line <ul style="list-style-type: none"> 411) Synthetic population 412) Hybrid 413) Founder stock/base population 414) Inbred line (parent of hybrid cultivar) 415) Segregating population 420) Mutant/genetic stock 500) Advanced/improved cultivar 999) Other (Elaborate in REMARKS field) 	
21. Ancestral data	(ANCEST)
Information about either pedigree or other description of ancestral information (i.e. parent variety in case of mutant or selection). Example: Hanna/7*Atlas//Turk/8*Atlas Example: mutation found in Hanna Example: selection from Irene Example: cross involving amongst others Hanna and Irene	
22. Collecting/acquisition source	(COLLSRC)
The coding scheme proposed can be used at 2 different levels of detail: either by using the general codes (in boldface) such as 10, 20, 30, 40 or by using the more specific codes such as 11, 12 etc.	
<ul style="list-style-type: none"> 10) Wild habitat <ul style="list-style-type: none"> 11) Forest/woodland 12) Shrubland 13) Grassland 14) Desert/tundra 15) Aquatic habitat 20) Farm or cultivated habitat <ul style="list-style-type: none"> 21) Field 22) Orchard 23) Backyard, kitchen or home garden (urban, peri-urban or rural) 24) Fallow land 25) Pasture 26) Farm store 27) Threshing floor 28) Park 30) Market or shop 40) Institute, Experimental station, Research organization, Genebank 50) Seed company 	

60) Weedy, disturbed or ruderal habitat 61) Roadside 62) Field margin 99) Other (Elaborate in REMARKS field)	
23. Donor institute code	(DONORCODE)
FAO Institute Code for the donor institute.	
24. Donor accession number	(DONORNUMB)
Number assigned to an accession by the donor. Example: NGB1912	
25. Other identification (numbers) associated with the accession	(OTHERNUMB)
Any other identification (numbers) known to exist in other collections for this accession. Use the following system: INSTCODE:ACCENUMB;INSTCODE:ACCENUMB;... INSTCODE and ACCENUMB follow the standard described above and are separated by a colon. Pairs of INSTCODE and ACCENUMB are separated by a semicolon without space. When the institute is not known, the number should be preceded by a colon. Example: NLD037:CGN00254 Example: SWE002:NGB1912;:Bra2343	
26. Location of safety duplicates	(DUPLSITE)
FAO Institute Code of the institute where a safety duplicate of 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.	
27. Type of germplasm storage	(STORAGE)
If germplasm is maintained under different types of storage, multiple choices are allowed (separated by a semicolon). (Refer to FAO/IPGRI Genebank Standards 1994 for details on storage type.) 10) Seed collection 11) Short term 12) Medium term 13) Long term 20) Field collection 30) In vitro collection (Slow growth) 40) Cryopreserved collection 99) Other (elaborate in REMARKS field)	
28. Remarks	(REMARKS)
The remarks field is used to add notes or to elaborate on descriptors with value 99 or 999 (=Other). Prefix remarks with the field name they refer to and a colon. Separate remarks referring to different fields are separated by semicolons without space. Example: COLLSRC:roadside	
29. Decoded collecting institute	(COLLDESCR)
Brief name and location of the collecting institute. Only to be used if COLLCODE can not be used since the FAO Institution Code for this institute is not (yet) available. Example: Tuinartikelen Jan van Zomeren, Arnhem, The Netherlands	
30. Decoded breeding institute	(BREDESCR)
Brief name and location of the breeding institute. Only to be used if BREDCODE can not be used since the FAO Institution Code for this institute is not (yet) available. Example: CFFR from Chile	
31. Decoded donor institute	(DONORDESCR)
Brief name and location of the donor institute. Only to be used if DONORCODE can not be used since the FAO Institution Code for this institute is not (yet) available. Example: Nelly Goudwaard, Groningen, The Netherlands	
32. Decoded safety duplication location	(DUPLDESCR)
Brief name and location of the institute maintaining the safety duplicate. Only to be used if DUPLSITE can	

not be used since the FAO Institution Code for this institute is not (yet) available. Example: Pakhoed Freezers inc., Paramaribo, Surinam
33. Accession URL (ACCEURL) URL linking to additional data about the accession either in the holding genebank or from another source. Example: www.cgn.wageningen-ur.nl/pgr/collections/passdeta.asp?accnumb=CGN04848

APPENDIX Differences between EURISCO, MCPDv2 and MCPDv1 descriptors

General changes from MCPDv1 to MCPDv2		
FAO Institution codes	Fields containing FAO institution codes should now use the codes with the format CCCNNN in which CCC is the country and NNN is the sequential number (in MCPDv1 acronyms and preliminary codes were acceptable).	
Multiple values	Values in fields, which can contain multiple values, are separated by a semicolon without a space (;) (in MCPDv1 a semicolon with a space was used).	
Changes per EURISCO descriptor		
EURISCO Descriptor	Remark concerning change	
0	NICODE	Field specific for EURISCO, identifying the National Inventory. Use the country codes as specified by the ISO 3166-1 standard. Exceptions are possible, if agreed with EURISCO (such as NGB).
1	INSTCODE	See remark on FAO Institution codes.
2	ACCENUMB	Same as in MCPDv1.
3	COLLNUMB	Same as in MCPDv1.
4	COLLCODE	New descriptor in MCPDv2.
5	GENUS	Same as in MCPDv1.
6	SPECIES	Original MCPDv1 field split into two separate fields: SPECIES and SPAUTHOR.
7	SPAUTHOR	New descriptor in MCPDv2.
8	SUBTAXA	Original MCPDv1 field split into two separate fields: SUBTAXA and SUBTAUTHOR.
9	SUBTAUTHOR	New descriptor in MCPDv2.
10	CROPNAME	New descriptor in MCPDv2.
11	ACCENAME	Field name has changed (was ACCNAME). See remark on multiple values.
12	ACQDATE	New descriptor in MCPDv2.
13	ORIGCTY	Same as in MCPDv1.

14	COLLSITE	Same as in MCPDv1.
15	LATITUDE	Format changed. Now seconds are also required (or hyphens if missing), so all values will be exactly two positions longer.
16	LONGITUDE	Format changed. Now seconds are also required (or hyphens if missing), so all values will be exactly two positions longer.
17	ELEVATION	Same as in MCPDv1.
18	COLLDATE	Same as in MCPDv1.
19	BREDCODE	New descriptor in MCPDv2. See remark on FAO Institution codes.
20	SAMPSTAT	Coding system changed, all codes are now three digits long. Following list first gives the old MCPDv1 code, followed by the new MCPDv2 two digit code: 1 ► 100, 2 ► 200, 3 ► 300, 4 ► 410, 5 ► 500, 99 ► 999, 0 ► <i>null</i> .
21	ANCEST	New descriptor in MCPDv2.
22	COLLSRC	Coding system changed, all codes are now two digits long. Following list first gives the old code, followed by the new two digit code: 1 ► 10, 1.1 ► 11, 1.2 ► 12, 1.3 ► 13, 1.4 ► 14, 2 ► 20, 2.1 ► 21, 2.2 ► 22, 2.3 ► 23, 2.4 ► 24, 2.5 ► 26, 3 ► 30, 3.1 ► 30, 3.2 ► 30, 3.3 ► 30, 3.4 ► 30, 4 ► 40, 99 ► 99, 0 ► <i>null</i> .
23	DONORCODE	See remark on FAO Institution codes.
24	DONORNUMBER	Same as in MCPDv1.
25	OTHERNUMBER	Format changed. Now following format is used: INSTCODE:ACCENUMB. When the institute or its code is not known, the number should be preceded by a colon only. See also remark on FAO Institution codes and on multiple values.
26	DUPLSITE	See remark on FAO Institution codes.
27	STORAGE	Coding system changed, all codes are now two digits long. Following list first gives the old code, followed by the new two digit code: 1 ► 11, 2 ► 12, 3 ► 13, 4 ► 30, 5 ► 20, 6 ► 40, 99 ► 99. See also remark on multiple values.
28	REMARKS	See remark on multiple values.
29	COLLDESCR	Field specific for EURISCO, free text field for solving institution code problems. Only to be used if the corresponding field COLLCODE can not be used since the FAO Institution Code for this institute is not (yet) available. The fields can contain a brief name and location of the institute, but can also contain for example the locally used acronym if this code doesn't have any corresponding additional information.
30	BREDDDESCR	Field specific for EURISCO, free text, only to be used if the corresponding

		field BREDCODE can not be used. (see remarks COLLDESCR)
31	DONORDESCR	Field specific for EURISCO, free text, only to be used if the corresponding field DONORCODE can not be used. (see remarks COLLDESCR)
32	DUPLDESCR	Field specific for EURISCO, free text, only to be used if the corresponding field DUPLSITE can not be used. (see remarks COLLDESCR)
33	ACCEURL	Field specific for EURISCO, providing a link to additional information about the accession maintained elsewhere. Should contain a valid URL pointing to details about the accession either in the holding genebank or from another source.