



National Inventory of Plant Genetic Resources in Croatia



Mirta Culek

Croatian Centre for Agriculture, Food and Rural Affairs

Institute for Seed and Seedlings

Osijek, Croatia



National Program for conservation and sustainable use of plant genetic resources for food and agriculture

- Officially adopted in 2013
- Coordinated by the National PGR Committee appointed by the Ministry of Agriculture



National Genebank

- ▶ **Decentralised – several collections held by different institutions**
- ▶ **Seed accessions, field collections (*Vitis*, fruit)**
- ▶ **Common database Croatian Plant Genetic Resources Database (CPGRD, <http://cpgrd.hcphs.hr/>)**



CPGRD

- Only passport and safety duplication data for the time being
- Passport data – EURISCO descriptors
- Plan – to include C&E data
- Network-based (Multi-user)
- Croatian and English version
- Searching – according to the working groups or the whole data-base

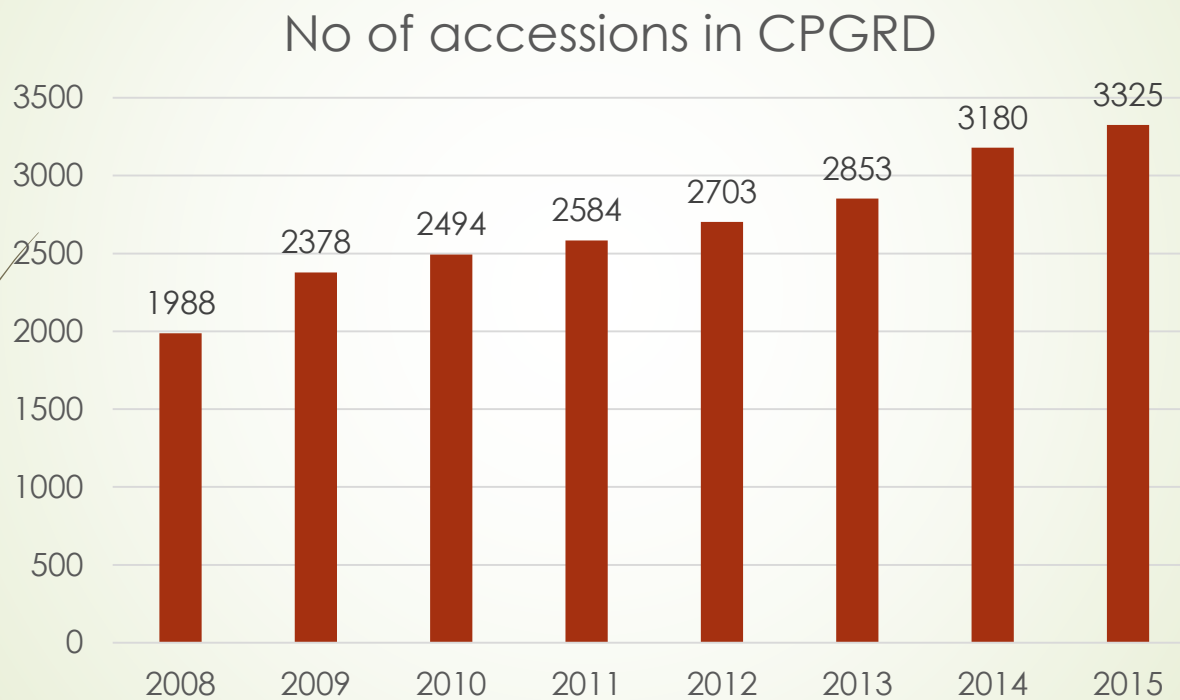


CPGRD - development

- **Developed in 2007**
- **Publicly available since 2008**
- **2011 – 2013 without funding**
- **2014:**
 - **Improvements of CPGRD**
 - **Status of accessions with regards to the MLS and AEGIS**
 - **Safety duplication data**



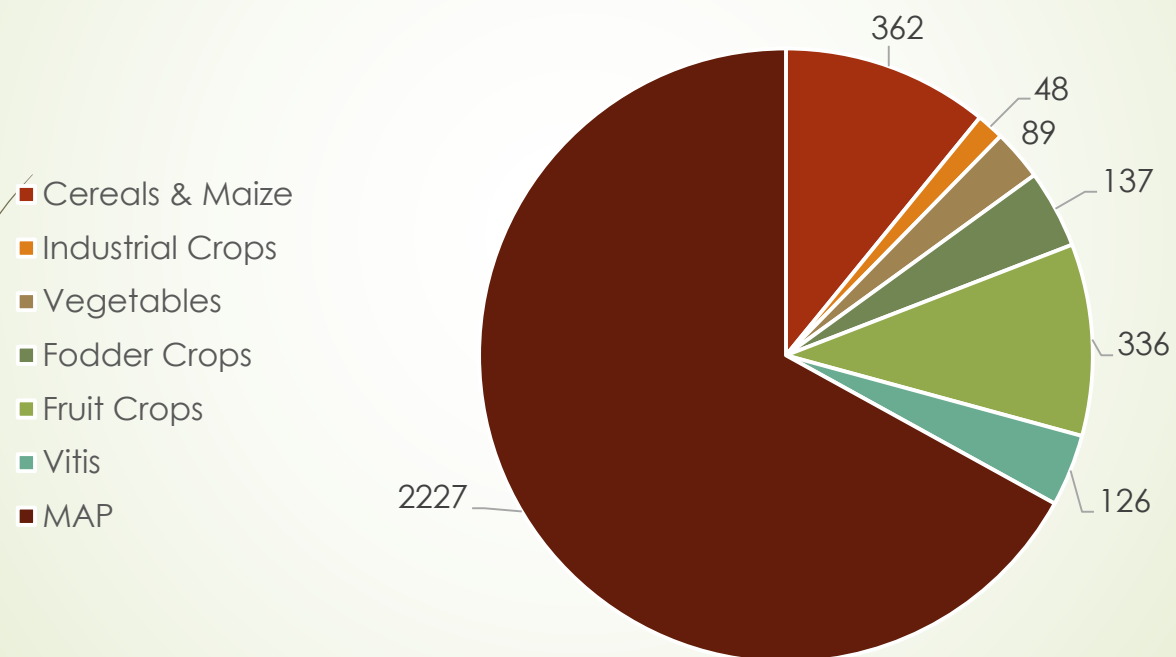
CPGRD - accessions





CPGRD - accessions

Species in CPGRD





CPGRD - accessions

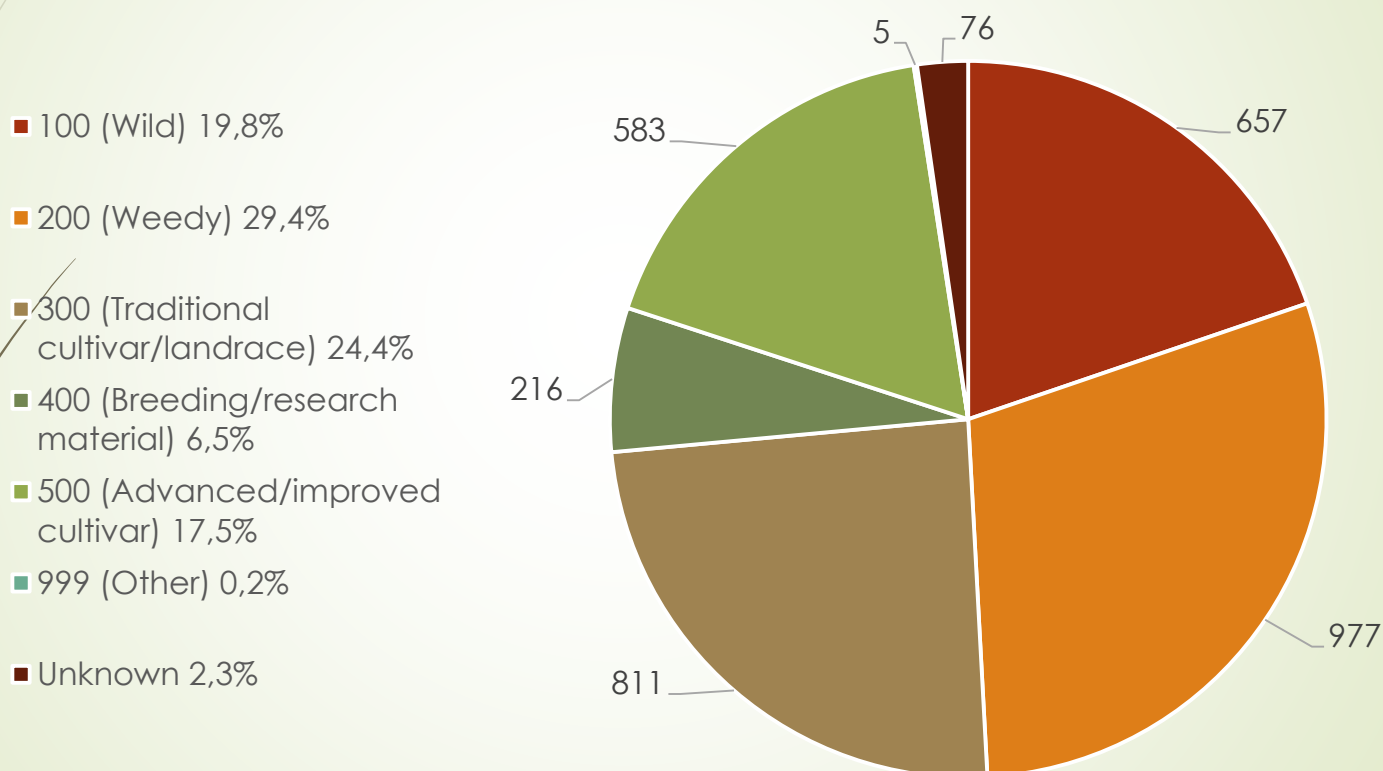
- No of genera **252**
- No of species **355**

Species	No of accessions
Zea mays	179
Vitis vinifera	126
Ocimum basilicum	119
Hypericum perforatum	116
Salvia officinalis	114
Malus domestica	105
Triticum aestivum	100
Olea europaea	85
Trifolium pratense	75
Tanacetum cinerariifolium	72
Hordeum vulgare	61
Origanum vulgare	53
Helichrysum italicum	50
Other	2070
Total	3325



CPGRD - accessions

Biological status of accession





CPGRD -features

The screenshot shows the CPGRD website interface. The browser address bar displays <http://cpgrd.hcphs.hr/>. The website header includes the CPGRD logo and navigation tabs for different crop categories: Cereals and Maize, Industrial Crops, Vegetables, Fodder Crops, Fruit Crops, Vitis, and Medicinal and Aromatic Plants. Below the header, there are navigation links: Main, History, Members, Activities, Links, and Croatian. The main content area is divided into two sections: Database Access and Number of accessions. The Database Access section includes a search bar. The Number of accessions section contains a table with the following data:

Category	Number of accessions
Cereals & Maize	362
Industrial Crops	48
Vegetables	89
Fodder Crops	137
Fruit Crops	336
Vitis	126
Medicinal & Aromatic Plants	2227
Total	3325

At the bottom of the page, there are links for the Croatian Plant Genetic Resources Database and its various crop categories: Cereals & Maize, Industrial Crops, Vegetables, Fodder Crops, Fruit Crops, Vitis, and Medicinal & Aromatic Plants.



CPGRD -features

The screenshot displays the CPGRD search interface. At the top, there is a browser window with the URL <http://cpgrd.hcphs.hr/search.html>. The page features a navigation menu with categories: Cereals and Maize, Industrial Crops, Vegetables, Fodder Crops, Fruit Crops, Vitis, and Medicinal and Aromatic Plants. Below the navigation menu, there are links for Main, History, Members, Activities, Links, and Croatian. The main content area is titled "Search" and includes several search filters:

- Genus, species, authority:** A text input field with a dropdown arrow.
- Country of origin:** A dropdown menu.
- Donor institute:** A dropdown menu.
- Biological status of accession:** A dropdown menu with options: 100, Wild; 110, Natural; 120, Semi-natural/wild; 200, Weedy.
- Collecting/acquisition source:** A dropdown menu with options: 10, Wild habitat; 11, Forest/woodland; 12, Shrubland; 13, Grassland.
- MLS Status:** A dropdown menu with options: 0, Not part of the MLS; 1, Part of the MLS.
- AEGIS Status:** A dropdown menu with options: 0, Not part of the AEGIS; 1, Part of the AEGIS.

A "Search" button is located at the bottom of the search filters. At the bottom of the page, there is a footer with links: [Croatian Plant Genetic Resources Database](#) | [Cereals & Maize](#) | [Industrial Crops](#) | [Vegetables](#) | [Fodder Crops](#) | [Fruit Crops](#) | [Vitis](#) | [Medicinal & Aromatic Plants](#) |



CPGRD -features

The screenshot shows the CPGRD website interface. The browser address bar displays http://cpgrd.hcphs.hr/gb/cm/main/accessions_list. The page title is "List of accessions". The navigation menu includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The main content area is titled "List of accessions" and contains a table with the following data:

Accession number	Species, Subtaxa, Accession name	Country of origin	Collecting date	Status of sample
CAM00001	Triticum aestivum L. + Akratos	DEU	500 +	
CAM00002	Triticum aestivum L. + Demetra	HRV	500 +	
CAM00003	Triticum aestivum L. + Elpa	DEU	500 +	
CAM00004	Triticum aestivum L. + Kata	HRV	500 +	
CAM00005	Triticum aestivum L. + Magdalena	HUN	500 +	
CAM00006	Triticum aestivum L. + Nevena	HRV	500 +	
CAM00007	Triticum aestivum L. + Panonija	HRV	500 +	
CAM00008	Triticum aestivum L. + Petra	HRV	500 +	
CAM00009	Triticum aestivum L. + Tamara	HUN	500 +	
CAM00010	Triticum aestivum L. + Teuta	HRV	500 +	
CAM00011	Triticum aestivum L. + Željka	HRV	500 +	
CAM00012	Triticum aestivum L. + Erwin	DEU	500 +	
CAM00013	Hordeum vulgare L. + Barke	DEU	500 +	
CAM00014	Hordeum vulgare L. + Effekta	AUT	500 +	



CPGRD -features

http://cpgrd.hcphs.hr/gb/cm/main/accession/238 CAM00167 - Zea mays L.

File Edit View Favorites Tools Help

genetic resources database

Main History Members Activities Links Croatian

Database Access

Browse
Genera
Species
Accessions

Search
Genera
Accessions

Database description

Passport data
Safety duplication data

CAM00167 Zea mays L.

Passport data
Safety duplication data

Cereals & Maize

Passport data

0. National Inventory code	HRV
1. FAO institute code	HRV041
2. Accession number	CAM00167
3. Collecting number	Zm09Kul1
4. Collecting institute code	
5. Genus name	Zea
6. Taxon name	mays
7. Species authority	L.
8. Subtaxa	
9. Subtaxa authority	
10. Common crop name	maize
11. Accession name	stakienac
12. Acquisition date	20091124
13. Country of origin	HRV
14. Location of collecting site	Kula
15. Latitude of collecting site	452304N
16. Longitude of collecting site	0175339E
17. Elevation of collecting site	168
18. Collecting date of sample	
19. Breeding institute code	
20. Biological status of accession	300, Traditional cultivar/landrace
21. Ancestral data	
22. Collecting/acquisition source	20, Farm or cultivated habitat
23. Donor institute code	
24. Donor accession number	
25. Other identification (numbers) associated with the accession	
26. Location of safety duplicates	HRV053
27. Type of germplasm storage	12, Medium term
28. Remarks	
29. Decoded collecting institute	
30. Decoded breeding institute	
31. Decoded donor institute	
32. Decoded safety duplication location	
33. Accession URL	http://cpgrd.hcphs.hr/gb/cm/main/accession?acnumb=CAM00167
34. MLS Status	1, Part of the MLS
35. AEGIS Status	



CPGRD -features

The screenshot displays the CPGRD website interface. At the top, there is a navigation menu with categories: Cereals and Maize, Industrial Crops, Vegetables, Fodder Crops, Fruit Crops, Vitis, and Medicinal and Aromatic Plants. Below the menu, the website logo and name 'cpgrd croatian plant genetic resources database' are visible. The main content area is titled 'Map of accessions' and shows a map of Croatia with various locations marked. A sidebar on the left provides options for Database Access, Database description, and Accession set. A search bar on the right shows a selected accession: 'Kula - 452304N, 0175339E CAM00167: Zea mays L.'



CPGRD -features

The screenshot shows a web browser window with the URL http://cpgrd.hcphs.hr/gb/cm/main/accession/238?document_code and a tab titled 'CAM00167 - Zea mays L.'. The page features a navigation menu with categories like 'Cereals and Maize', 'Industrial Crops', 'Vegetables', 'Fodder Crops', 'Fruit Crops', 'Vitis', and 'Medicinal and Aromatic Plants'. Below the navigation, there are tabs for 'Main', 'History', 'Members', 'Activities', 'Links', and 'Croatian'. The main content area is divided into sections: 'Database Access' (Browse, Search), 'Database description' (Passport data, Safety duplication data), and 'CAM00167 Zea mays L.' (Passport data, Safety duplication data). A 'Safety duplication data' table is displayed, listing 9 items. A yellow sidebar on the left contains the text 'Cereals & Maize'.

Safety duplication data	
1. Accession number	CAM00167
2. Accession species	Zea mays L.
3. Common crop name	maize
4. Accession name	staklenac
5. Location of safety duplicates	HRV053
6. Number of seeds in the safety duplication sample	2500
7. Weight (g) of seeds in the safety duplication sample	862.7
8. Date of storage in the safety base collection	20110427
9. Type of germplasm safety storage	13, Long term



CPGRD – challenges

- **Data format**
- **Data completeness**
- **Data quality**



CPGRD and EURISCO

- **Contributions to EURISCO since 2009**
- **Frequency of updates – irregular**
- **No updates since EURISCO moved to IPK**



Expectations from the workshop

- To become familiar with the new EURISCO system
- To learn how to upload NI dataset
- To discuss possibilities for including C&E data into EURISCO and CPGRD
- To discuss possibilities for using EURISCO for monitoring the implementation of the 2GPA



Thank you for your attention!