



CROATIAN GENE BANK

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 Croatia

EVA Maize – Malanirs Kickoff

26-27 February, 2025

Bergamo, Italy



University of Zagreb Faculty of Agriculture

- **TEACHING:** Applied Genetics and Plant Breeding
- **RESEARCH:** Genetics and breeding of wheat, soybean and maize; Biotic and abiotic stress tolerance; Quality
- **GENETIC RESOURCES:** Chair of the working group „Cereals and maize” since 2007 within the Croatian Gene bank



List of accessions from all Croatian collections is accessible through Croatian plant genetic resources database

The screenshot shows the CPGRD website interface. The top navigation bar includes categories: Cereals and Maize, Industrial Crops, Vegetables, Fodder Crops, Fruit Crops, Vitis, and Medicinal and Aromatic Plants. The 'Croatian' section is highlighted in the main navigation. Below this, there is a 'Database Access' section with a search bar and a 'Number of accessions' table.

Category	Number of accessions
Cereals & Maize	593
Industrial Crops	102
Vegetables	310
Fodder Crops	200
Fruit Crops	448
Vitis	147
Medicinal & Aromatic Plants	2604
Total	4404

All accessions in CPGRD are related to original and traditional agricultural plants threatening to disappear.

Navigation links at the bottom: [Croatian Plant Genetic Resources Database](#) | [Cereals & Maize](#) | [Industrial Crops](#) | [Vegetables](#) | [Fodder Crops](#) | [Fruit Crops](#) | [Vitis](#) | [Medicinal & Aromatic Plants](#)

Number of accessions in the collections of small grain cereals and maize

Upgrd
croatian
plant genetic resources database

Cereals and Maize | Industrial Crops | Vegetables | Fodder Crops | Fruit Crops | Vitis | Medicinal and Aromatic Plants

Main | History | Members | Activities | Links | **Croatian**

Database Access

Browse

- Genera
- Species
- Species / institution
- Accessions
- C&E data: Zea

Search

- Genera
- Accessions

Database description

- Passport data
- Safety duplication data
- Characterization data

List of species

Species	No. of accessions
Avena sativa L.	15
Fagopyrum esculentum Moench	2
Hordeum vulgare L.	120
Panicum miliaceum L.	2
Secale cereale L.	3
xTriticosecale spp.	6
Triticum aestivum L.	231
Triticum durum Desf.	7
Zea mays L.	262

Zea mays L: 262 accessions

Uni Zg 238 accessions (90%)

88 inbred lines

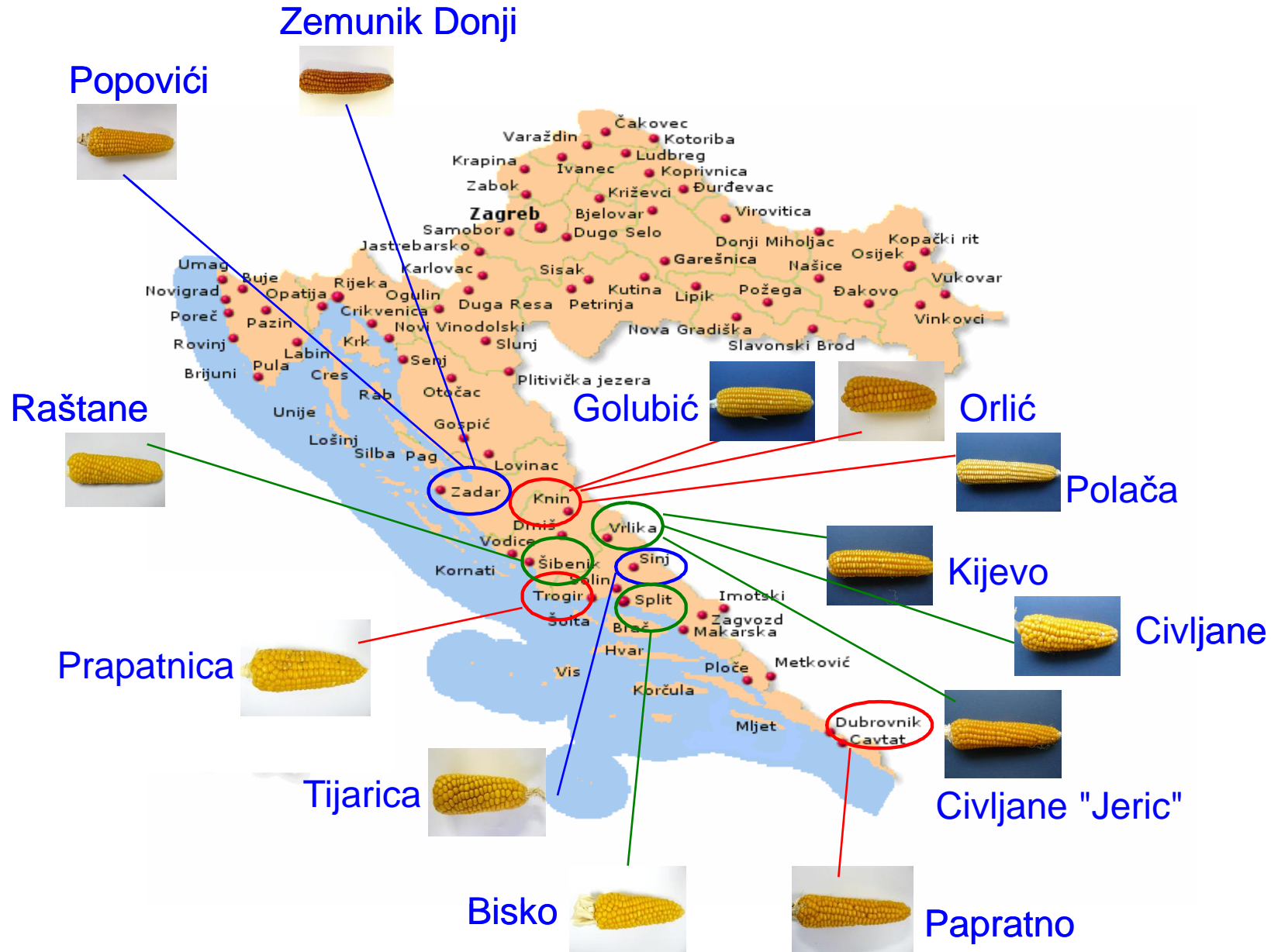
150 landraces

[Print version](#)

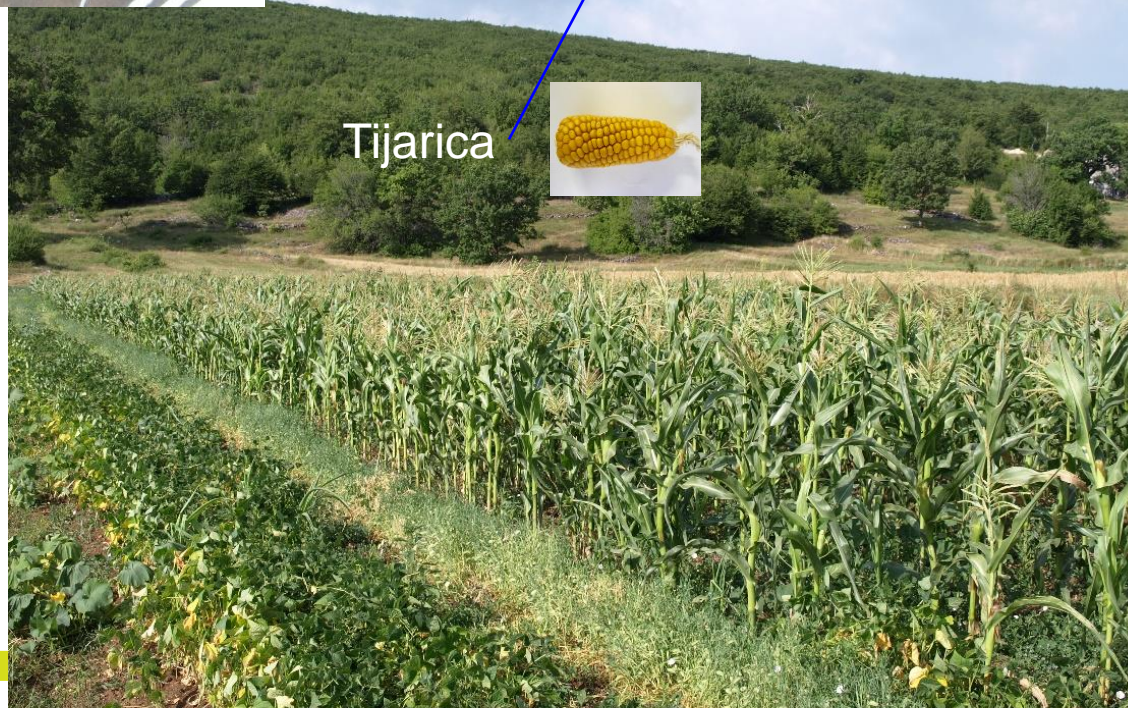
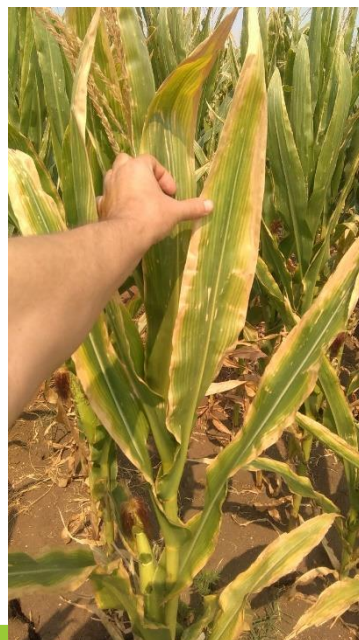
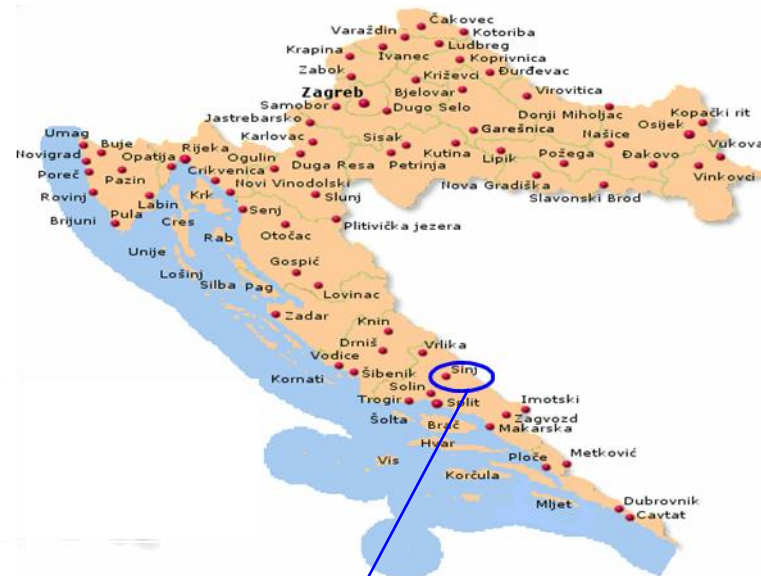
Sample of accessions collected in the northern regions of Croatia



Sample of accessions collected in the southern regions of Croatia



Dry and hot climate in southern regions of Croatia



Genetic resources of maize (University of Zagreb)

Activities:

- collection of landraces
- conservation of landraces (accessions) ex situ
- maintenance and regeneration of accessions
- description of accessions at morphological, biochemical and molecular level
- Seed of most accessions available for sharing based on SMTA



Multiplication of landraces at different locations.



Location: Rugvica



Location: Zagreb (protection against birds)



Location: Osijek




In 2024 multiplication of 30 landraces was unsuccessful due to **severe drought**

- description of accessions at morphological, biochemical and molecular level



Article





Genetic Variability in Carotenoid Contents in a Panel of Genebank Accessions of Temperate Maize from Southeast Europe

Domagoj Šimić ^{1,2,*} , Vlatko Galić ^{1,2} , Antun Jambrović ^{1,2}, Tatjana Ledenčan ¹, Kristina Kljak ³ , Ivica Buhiniček ⁴ and Hrvoje Šarčević ^{2,3}



Article

Genetic Variability of Tocol Content in a Genebank Collection of Temperate Maize Inbred Lines from Southeastern Europe

Hrvoje Šarčević ^{1,2,*}, Miroslav Bukan ^{1,*}, Vlatko Galić ^{2,3} , Antun Jambrović ^{2,3}, Kristina Kljak ¹ , Ivica Buhiniček ⁴, Ivan Pejić ^{1,2}, Goran Kiš ¹  and Domagoj Šimić ^{2,3} 



Expectations from EVA Maize/Malanirs

- Expectations and constraints for Malanirs from researchers' perspective (material, traits, conditions of operation)
- Interest and capacity to be involved in NIRS evaluation (do you have a NIRS device and experience to do biochemical analysis on grains?)
- Ways to cooperate/experience with PPP





Thank You for Your Attention!

