



CURRENT STATUS OF THE PEPPER (*CAPSICUM ANNUUM* L.) GERMPLASM COLLECTION IN THE CZECH REPUBLIC

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*EUROPEPLAND– Implementing a trans-EUROpean
PEPper LANDrace collection for resilient agriculture
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Genetic Resources for Vegetables, Medicinal and Special Plants

the collections genetic resources of vegetables medicinal, aromatic and culinary plants (MAPs) long and rich history in Olomouc since 1951



Allium

Beta

Brassica

Capsicum

Cucumis

Daucus

Lycopersicon

Lactuca

Pisum

Phaseolus



Achillea

Carum

Salvia

Hypericum

Origanum



Total in standard collections: **10 294 acc.**
vegetatively 872 acc.
generatively 9 422 acc
It presents 20% of all acc. in the Czech Republic.



Pepper collection

The pepper collection consists of 544 accessions, from 26 countries

The major part - old open-pollinated varieties from

Hungary – 137 acc.

former Czechoslovakia and Czech Republic – 97 acc.

former Soviet Union – 58 acc.

USA 46 acc.

Bulgaria 44 acc.

Romania 32 acc.





Growing of pepper

In past we grew the pepper in plastic greenhouse
The plants were isolated by special bags to avoid cross-pollination



After removal of the bags
the fruits were tagged by
cotton thread

Seeds were harvested
only from tagging fruits.

Since 2000 pepper accessions
have grown in the isolation cages.

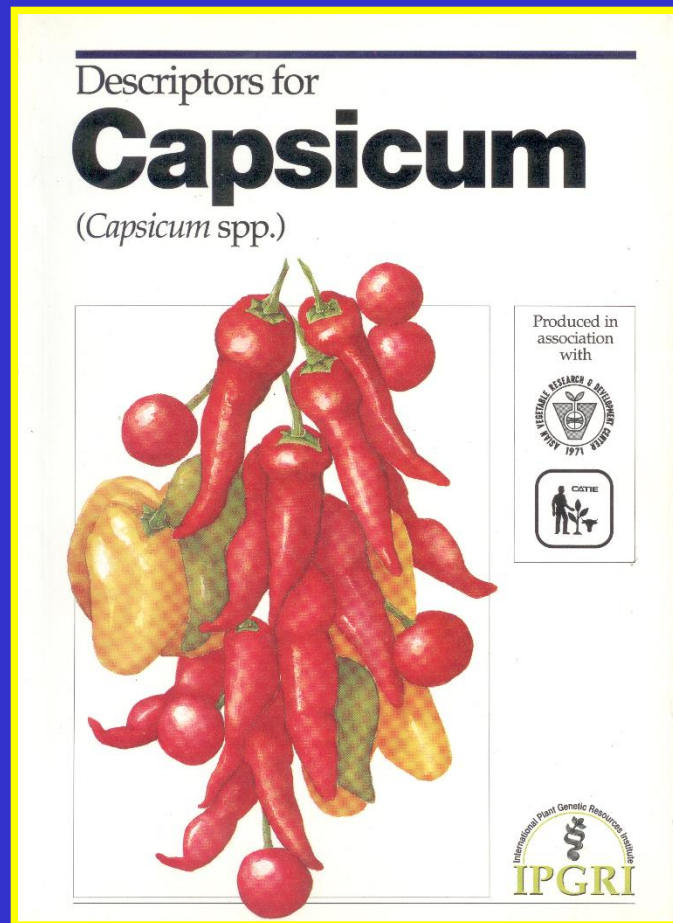
for multiplication 40 plants
multiply 15 to 20 accessions
per year





Description

Pepper is characterization for 31 characters, according to the Descriptors for Capsicum, (*Capsicum* spp.) (IPGRI 1995).





Photos documentation

in time flowering



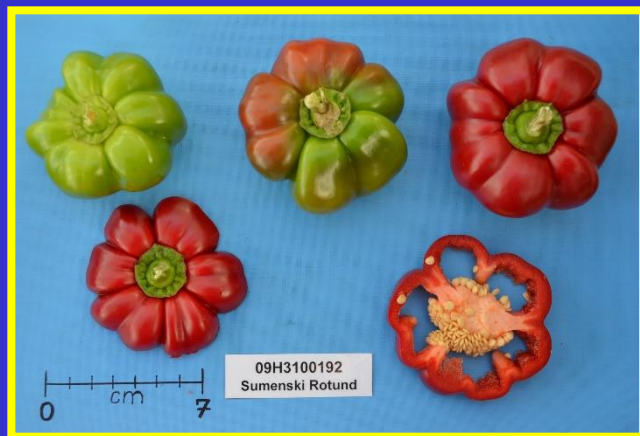


ripening fruits on the plants





Detail of fruit – sideways top point of view cross section





Evaluation

The dry matter content have been detected on 433 accessions.

Dry matter content	Number of accessions
Low > 4 %	6
Medium 4 % – 7 %	246
High 8 % - 11 %	139
Very high < 12 %	42

The Czech genotypes of the pepper (65) (*Capsicum annuum* L.) were analyzed for contents of capsaicin and ascorbic acid.

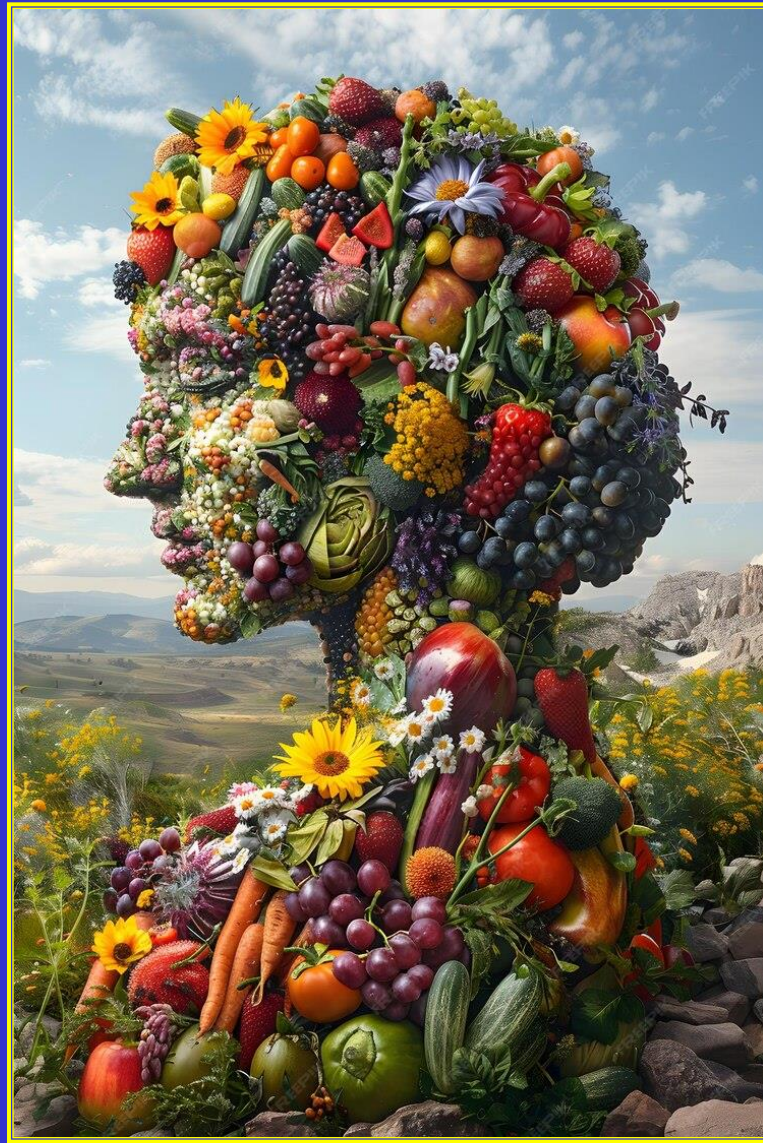
	content
ascorbic acid	49.9 to 851.1mg/100g FW
capsaicin	0.52 to 72.23 mg/100g FW



For project EuroPepland to be chosen the set of 38 accessions

Number	Name
09H3100038	Severka
09H3100036	Pisarecka na plneni
09H3100016	Hodoninska zelena
09H3100037	Ceska rana
09H3100185	Severka
09H3100201	Antilsky Pepr
09H3100204	Portugalska Zluta
09H3100205	Tatar
09H3100035	Ozdobna
09H3100039	Hodoninska zelena
09H3100206	Pfefferonka
09H3100043	Bobkova
09H3100203	Francouzska Kratka
09H3100046	Tlustostenna Dunajska
09H3100047	Uherska zeleninova
09H3100315	Kerova Zluta Parizska
09H3100318	Kocu
09H3100041	Polevkova zluta
09H3100045	Tlustostenna Povazska

Number	Name
09H3100337	CS 1
09H3100048	Povazska
09H3100049	Nitranska Krajova
09H3100216	Severka k rychleni
09H3100200	Tresnova cervena
09H3100032	Granat
09H3100023	PCR
09H3100025	Karmen
09H3100030	Jubilantka
09H3100020	Citrina
09H3100028	Konika
09H3100532	Andrea
09H3100533	Karmen
09H3100481	Feferonka zluta
09H3100485	Kapia
09H3100530	Feferonka tresnova
09H3100531	Paprika sladka
09H3100548	Ostra dlouha
09H3100551	Sladka kratka



Thank you very much for your attention