

# CUCURBITS WORKING GROUP

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Mara Ercolano<sup>1</sup> (Chair) and María José Díez <sup>2</sup> (exChair)

<sup>1</sup> Università degli Studi di Napoli Federico II, Italy

<sup>2</sup> Polytechnic University of Valencia, Spain

# The Cucurbits Working Group

- A brief history:
  - In May 2000, in Vila Real, Portugal, the ECPGR Vegetables Network Coordinating Group recommended extending collaborative activities to Cucurbits crops
  - Formally approved by the ECPGR Steering Committee in October 2003
- Number of Members: 59
  - Genebank curators: 17
  - Crop specialist: 23
  - Information/Documentation: 12
  - Plant breeder: 16
  - Policy and law: 8
  - Other expertise: 1

# The Cucurbits Working Group: Main achievements and publications

- Establishment of the ECPGR Central Crop Database for Cucurbits
- Publications of interest:
  - Minimum descriptor lists for *Cucurbita* spp., Cucumber, Melon and Watermelon
  - Current level of safety duplication of cucurbits collections in Europe (status at May 2011)
  - General guidelines for regeneration, processing and storage of cucurbit species (April 2011)
  - Crop-specific genebank standards for orthodox seeds (agreed by the Cucurbits WG, April 2015)

# The Cucurbits Working Group: meetings

- ECPGR *ad hoc* meeting on Cucurbit genetic resources in Europe. Jointly held with the EU funded GEN RES 108 project meeting, Adana, Turkey, 2002
- ECPGR Cucurbits Working Group - 1st meeting, Plovdiv, Bulgaria, 2005
- ECPGR Cucurbits Working Group - *ad hoc* meeting, Poland, Warsaw, 2008
- ECPGR Cucurbits Working Group - 2nd meeting, Tbilisi, Georgia, 2010

# 1. Fulfillment of the ECPGR objectives of Phase IX

Genus	ECCUDB	EURISCO	European accessions
<i>Acanthosicyos</i>	1	14	0
<i>Benincasa</i>	63	33	12
<i>Bryonia</i>	2	92	0
<i>Citrullus</i>	3912	1948	197
<i>Coccinia</i>	1	0	0
<i>Cucumis</i>	5268	9739	1208
<i>Cucurbita</i>	12345	6916	755
<i>Cyclanthera</i>	7	20	7
<i>Diplocyclos</i>	3	6	3
<i>Ecballium</i>	3	273	1
<i>Echinocystis</i>	2	4	0
<i>Gynostemma</i>	1	2	1
<i>Kedrostis</i>	2	9	2
<i>Lagenaria</i>	199	270	60
<i>Luffa</i>	192	93	22
<i>Melothria</i>	6	5	4
<i>Momordica</i>	34	43	5
<i>Praecitrullus</i>	12	1	1
<i>Sechium</i>	6	6	3
<i>Thladiantha</i>	1	2	1
<i>Trichosanthes</i>	10	21	8
<b>TOTAL</b>	<b>28845</b>	<b>19497</b>	<b>2290</b>
<b>Percentage</b>		<b>67.6 %</b>	<b>7.9 %</b>

Germany (87.5%)  
 The Netherlands (11.0%)  
 Nordic countries (1.4%)

# 1. Fulfillment of the ECPGR objectives of Phase IX

- Activities for increasing the number of European accessions of cucurbits
  - Selection of the MAA from the collections of Bulgaria, Latvia, Lithuania, Poland, Portugal, Slovakia, Sweden, Ukraine, Azerbaijan, Czech Republic, Georgia, Hungria, Romania, Turkey
    - Criteria agreed in the meeting of Tbilisi (Georgia, 2010)
    - Contact with the curators of the genebanks
    - Contact with the National Coordinators
    - Positive answers from some countries
    - Contact with Jan Engels and Lorenzo Maggioni

Finally, only the accesions from the Nordic countries were included in the European collection

## 2. Major gaps/constraints identified in fulfilment of the objectives of the ECPGR of Phase IX

- Lack of funding
- Projects submitted by the CWG to the ECPGR Activity Grant Scheme
  - Genotyping of the melon European Collection with neutral and linked to quality traits Single Nucleotide Polymorphism (SNPs) (Call 2014)
    - Objective: Improve the phenotypic and molecular characterization of 150 accessions included in the EC
  - Selection and designation of new accessions to increase the AEGIS cucurbits collection (Call 2015)
    - Objective: Enlarge the number of European accessions, selecting accessions from Bulgaria, Portugal, Romania and Spain

Related with Outcome 1 “AEGIS is operational.  
Accessions in AEGIS are characterized and evaluated”

### 3. Review of the working mode in phase IX

- **Comments on the working mode in phase IX:**
  - Difficulties in getting funds if the Activities submitted to the Grant Scheme are not funded
  - Lack of contact among partners if no activities are conducted
  - The lack of meetings and contacts prevents the emergence of collaborations among partners



## 4. Recommendations to enhance opportunities and mitigate threats.

- The most important: To ensure funding to all Working Groups. In case the proposals are not funded the WGs are not able to undertake any activity
- To facilitate contact among the Working Group members (including meetings)
- Identify and improve deficits in communication and transfer of information among partners
- Exploit new funding opportunities for managing genetic resources (EU calls)
- Commitment to improve national capacity for genetic resource conservation
- Availability of seed storage and multiplication facilities for promoting EU countries sharing
- Enhancing strategies to improve the use of accessions

## 5. Meeting the users' needs, are we maximising use of the conserved resource, how might we further enhance use?.

- Developing joint activities:
  - - Contact genebanks - seed companies
  - - Contact genebanks small farmers producing for local consumption
  - - Collaboration between genebanks and local governments
  - - Involvement of genebanks in EU projects (these projects have a strong visibility and dissemination activities). Their results can be uploaded into the WG webpage, EURISCO, etc
  - - Involvement of genebanks in training activities (specially for genebanks located in universities): visits, practical lessons, Master Final Works, etc.