



## *Prunus* WG

Current state of fulfilment of ECPGR objectives of Phase IX

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## *Prunus* WG

- ✓ 94 Members
- ✓ 39 Countries

- ✓ 7 main crops:
  - almond, apricot, cherry (sweet and sour), peach, plum (European and Japanese)**
- ✓ Accessions are maintained in open field collections, clonally propagated (onto rootstocks)
- ✓ Exchange material is mainly budwood

# ECPGR Activity Grant Scheme

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2015.

PRUNDOC - Identification of a representative set of *Prunus domestica* accessions of European origin, well documented and characterized, to be included into the AEGIS system



2016.

EU.CHERRY - Collaborative action for updating, documenting and communicating the cherry patrimonial richness in EU



COST ACTION FA1104 on Cherry

2017. (*under evaluation*).

Prunus Alignment - Testing, Use and Alignment of genetic data to distinguish unique and characterized accessions in *Prunus*



# AEGIS for Prunus is not yet operational. However....

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## 1. Standardization of protocols and descriptors for C&E of accessions

- ✓ Crop-specific protocols and First and Second Priority descriptors
  - peach (2013)
  - plum (2015) – PRUNDOC**
  - sweet cherry (2016) – EU.CHERRY**
- ✓ SSR set and reference varieties
  - sweet cherry (2009) under revision (2017)**
  - plum (2016)**



# AEGIS for Prunus is not yet operational. However....

## 2. Standards for genebank management (AQUAS)

- ✓ Prunus crop-specific standards (PGS) for genebank management (2016)





# AEGIS for Prunus is not yet operational. However....

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We have a list of candidate accessions for the AEGIS *Prunus* Collection:

**95 plum** (*P.domestica*) and **171 sweet cherry** landraces of EU origin

- described with EURISCO passport descriptors,
- described with crop-specific FPD;
- described with fruit pictures;
- genetically unique (distinct SSR profiles);

## Requisites for AEGIS accessions (as established by the Prunus WG, 2008; 2010)

PRIMARY,  
ASPECIFIC

PGR in the public domain  
Originated in EU/important to EU  
Genetically unique

SECONDARY,  
DECIDED BY THE WG

Of known origin, whether collected or bred;  
Accompanied by comprehensive passport information using the EURISCO multi-crop passport descriptors;  
Accompanied by morphological and/or molecular characterization data;  
Accompanied by agronomic evaluation data;  
Correctly named (particularly relevant for perennial clonal crops in which synonyms and homonyms are frequent);  
**Of high health status, eg. virus free**

# EURISCO

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- EPDB (13,000 accessions) is not fully synchronized with EURISCO (18,000), and there are inconsistencies among the accessions listed in the two DBs.
- ✓ In 2016 the EPDB manager participated in the EURISCO NFP Regional Training Workshop, learning how to prepare datasheets for importing C&E data into EURISCO
- ✓ The data of > 250 PRUNDOC and EU.CHERRY accessions have been checked in order to provide high quality data and will be uploaded soon into the EPDB and into EURISCO

Ideally, EURISCO should:

- Include crop-specific C&E and SSR descriptors for each Prunus species ;
- Allow easy identification of accessions endowed with specific traits;
- Allow easy comparison of accessions for C&E and SSR scores: selection of the most valuable, detection of homonyms/synonyms, misnaming, mistakes.

# Prunus WG priorities for the future

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## Short term

### More *Prunus* accessions well characterized in EURISCO

- Crop-specific protocols for further *Prunus* crops;
- Collaborate with EURISCO DB manager to implement EURISCO functionality for *Prunus*
- New *Prunus* accessions with C&E data on EURISCO;
- New *Prunus* candidates for AEGIS; flagging as AEGIS those fulfilling all the requisites
- New Associate Membership to AEGIS

## Long term

### Promote the exchange (and use) of *Prunus* accessions

- phytosanitary status assessment of AEGIS candidates;
- sanitation of the most valuable;
- Protection of the healthy copies against quarantine pests and diseases





Thanks for your attention!!