EPPO CODES

Building blocks for information systems

5th EPPO Codes Users Webinar

2021-06-22

What are the EPPO Codes?

- 5-6 letter computer codes: unique identifiers for plants and pests that are of interest in agriculture and plant protection

- Codes mainly cover taxa ('taxonomic codes') but also other entities such as crop groups ('non-taxonomic codes')

- Initially developed by BAYER and managed by EPPO since 1996

- EPPO Codes are maintained by the EPPO Secretariat

EPPO Codes: a few general principles

For cultivated and wild plant species (including weeds)

5 letters = 3 (genus) + 2 (species)

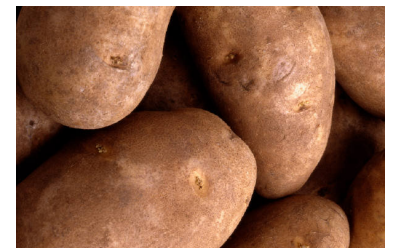S O L | T U

Solanum tuberosum: SOLTU

An unspecified species of *Solanum*: SOL**SS**

Genus *Solanum*: **1**SOL**G**

Mnemonic element: whenever possible, codes are constructed on the basis of the current scientific name

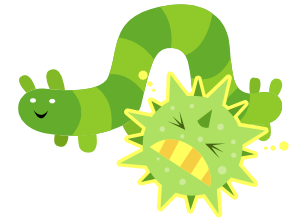# EPPO Codes: a few general principles

For pests and pathogens:

6 letters = 4 (genus) + 2 (species)

<div align="center">
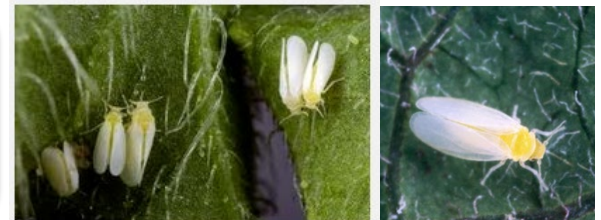
B E M I | **T A**

</div>

The species *Bemisia tabaci*: BEMITA

An unspecified species of the genus *Bemisia*: BEMI**SP**

Genus *Bemisia*: **1**BEMI**G**

Special case of viruses:
codes are constructed with the acronyms
Tomato yellow leaf curl virus **(TYLCV) = TYLCV0**
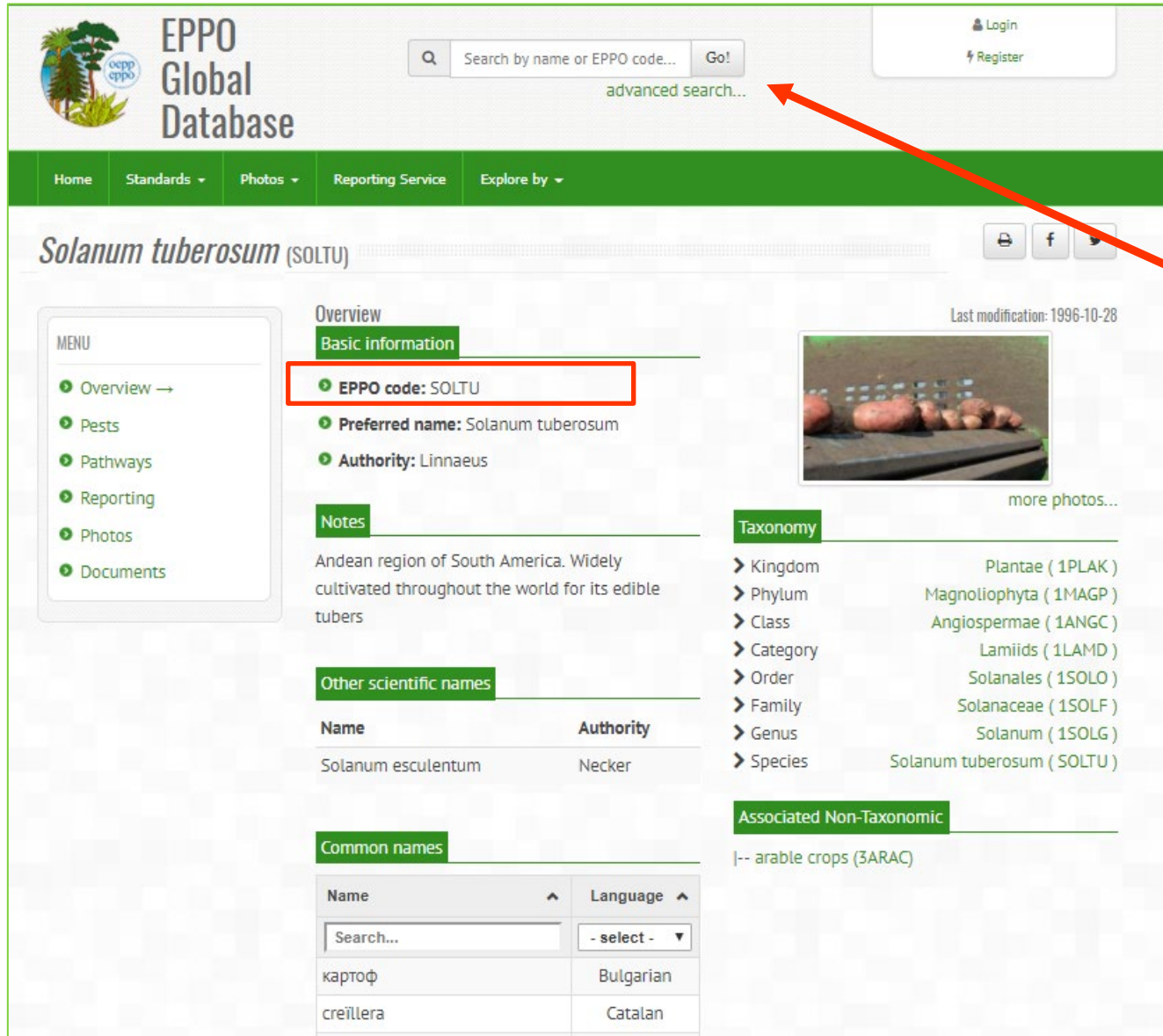
EPPO Codes: a few general principles

1 biological entity = 1 unique code

CRIELI

A code once given may not be deleted or used again for other purposes

EPPO Global Database
Repository for all EPPO codes: https://gd.eppo.int

Simple and advanced search tools are available in the database

+

Webservices for batch queries

# Contents of the coding system

For each plant/pest:

- EPPO code

- Preferred scientific name

- Synonyms (or other scientific names)

- Common names in different languages

- Elements of taxonomy

Simplifed taxonomic tree

Kingdom	Animalia	**1**ANIM**K**
└**Phylum**	Arthropoda	**1**ARTH**P**
└**Subphylum**	Hexapoda	**1**HEXA**Q**
└**Class**	Insecta	**1**INSE**C**
└**Order**	Hemiptera	**1**HEMI**O**
└**Suborder**	Sternorrhyncha	**1**STER**R**
└**Family**	Aleyrodidae	**1**ALEY**F**
└**Genus**	Bemisia	**1**BEMI**G**
└**Species**	Bemisia tabaci	BEMITA

Harmonized coding
Parent / child relationships
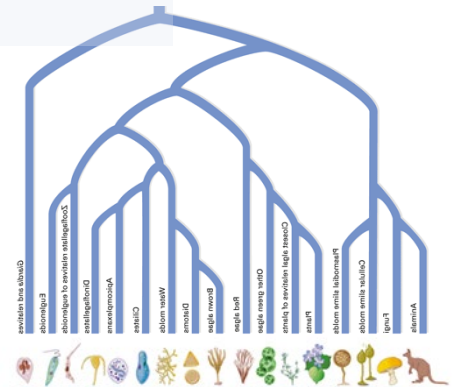
EPPO Codes: several subgroups

Taxonomic codes

Taxonomic groups: plants, animals, microorganisms
[SPT][SIT][SFT]

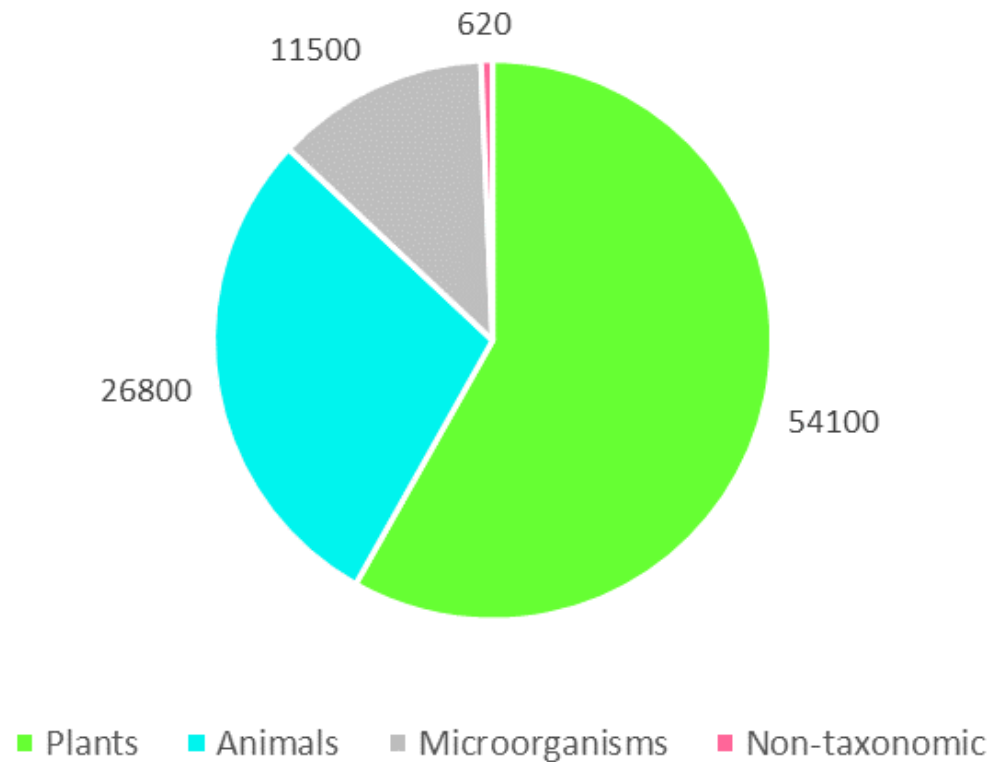**Species**: plants, animals, microorganisms
[PFL][GAI][GAF]

Deactivated codes
[pbe][sfn][sin][sis][spb]
[sen][sfs][spn]

Non-taxonomic codes
Non-taxonomic 'entities' [NTX]

A few numbers (June 2021)

620

11500

26800

54100

■ Plants ■ Animals ■ Microorganisms ■ Non-taxonomic

> 90 400 <u>species</u> important for agriculture and plant protection

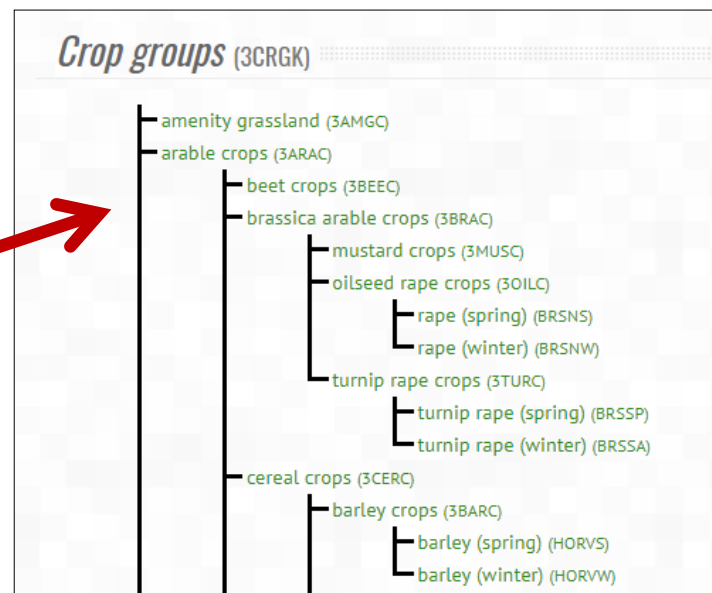Until 2018, 2 000 new codes were created every year

Since 2018, > 4 000 new codes are created (EU funded project)

Non-taxonomic Codes for plant protection products (PPP)

➢ **Non-taxonomic codes follow different rules – EPPO Standard PP 1/248 (<u>new</u> revision in 2021)**

➢ **Set of Codes developed by the EPPO Expert Working Group on PPP data harmonization**

➢ **Harmonized definitions of the declared uses of PPP - facilitate communication among countries and mutual recognition of PPP authorizations**

In the general menu of GD, select **Explore by** **'PPP uses classification'**

Group	EPPO Code	
Crop groups	3CRGK	View the expanded list...
Treated objects	3NCRK	View the expanded list...
Targets	3TARGK	View the expanded list...
Crop destinations	3CRODK	View the expanded list...
Crop locations	3CROLK	View the expanded list...
Treatments	3TREAK	View the expanded list...

Crop groups (3CRGK)

- amenity grassland (3AMGC)
- arable crops (3ARAC)
  - beet crops (3BEEC)
  - brassica arable crops (3BRAC)
    - mustard crops (3MUSC)
    - oilseed rape crops (3OILC)
      - rape (spring) (BRSNS)
      - rape (winter) (BRSNW)
    - turnip rape crops (3TURC)
      - turnip rape (spring) (BRSSP)
      - turnip rape (winter) (BRSSA)
  - cereal crops (3CERC)
    - barley crops (3BARC)
      - barley (spring) (HORVS)
      - barley (winter) (HORVW)

How to obtain core files?

■ The whole set of EPPO codes and associated names is freely available under the terms of an open data licence.

■ Web services are being developed to facilitate downloading of EPPO codes.

Downloads – EPPO Data Services
The open data licence, computer files (in different formats) and explanations are available from a dedicated platform:
https://data.eppo.int

How to stay informed?

Subscribe to the EPPO Codes Monthly Newsletter (free)

- Create your free account in the EPPO Global Database
- Login
- In your dashboard, choose the EPPO Codes Newsletter

List of newly created codes
List of deactivated codes

How to get NEW EPPO Codes created?

✓ Additional service subject to fees (50 euros per code) – Free for EPPO members (NPPOs)

✓ All necessary online forms have been created in **EPPO Global Database**

✓ Guidance is available in EPPO Global Database
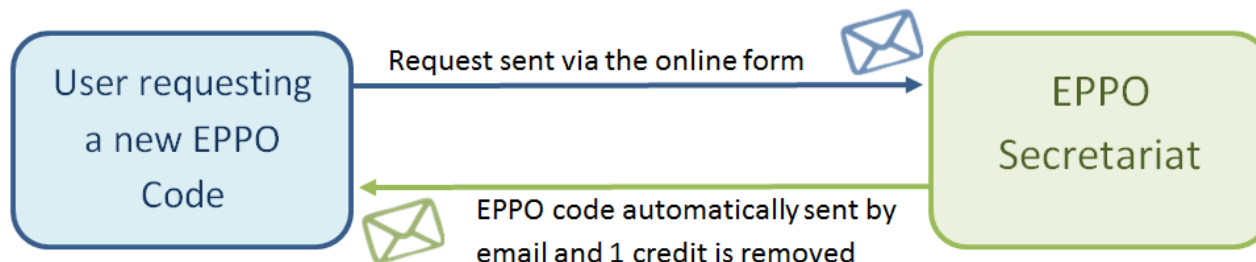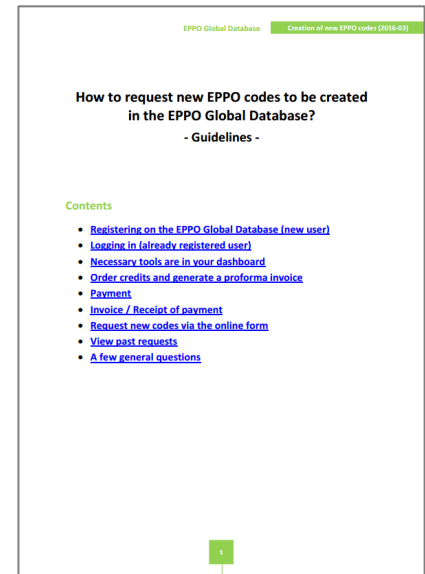
Conclusions

EPPO codes can be used in information systems to:

- Avoid typing errors during data entry and ensure consistency of data over time

- Provide an efficient way of dealing with taxonomic changes and different languages in databases

- Ensure consistent searches within databases

- Facilitate data exchange between databases

Thank you for your attention

EPPO Codes: a few general principles

1 biological entity = 1 unique code

CRIELI

Change of preferred scientific name:
Gnorimoschema absoluta = Tuta absoluta
➡ The code **GNORAB** remains the same

Newly described species:
Phytophthora pinifolia
➡ A new code **PHYTPF** is created

EPPO Codes: a few general principles

A code once given may not be deleted or used again for other purposes

In some instances, often resulting from successive taxonomic changes (e.g. synonymization), codes have to be deactivated (NOT deleted) to avoid duplication of codes

1 biological entity = 1 unique code

Species A
Code AAAAA

=

Species B
Code BBBBB

→

Species A
Synonym B
Code AAAAA

Species B
Code BBBBB
Deactivated