

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**

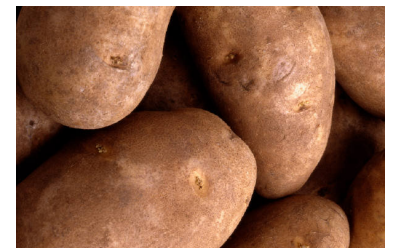
Solanum tuberosum: SOLTU

An unspecified species of *Solanum*: SOLSS

Genus *Solanum*: **1SOLG**



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:

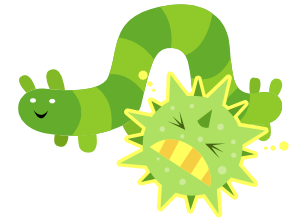
6 letters = 4 (genus) + 2 (species)

B E M I T A

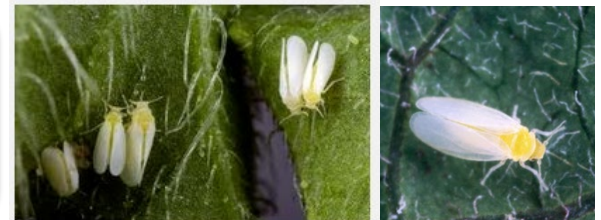
The species *Bemisia tabaci*: BEMITA

An unspecified species of the genus *Bemisia*: BEMISP

Genus *Bemisia*: **1BEMIG**



Special case of viruses:
codes are constructed with the acronyms
Tomato yellow leaf curl virus (TYLCV) = TYLCV0



EPPO Codes: a few general principles

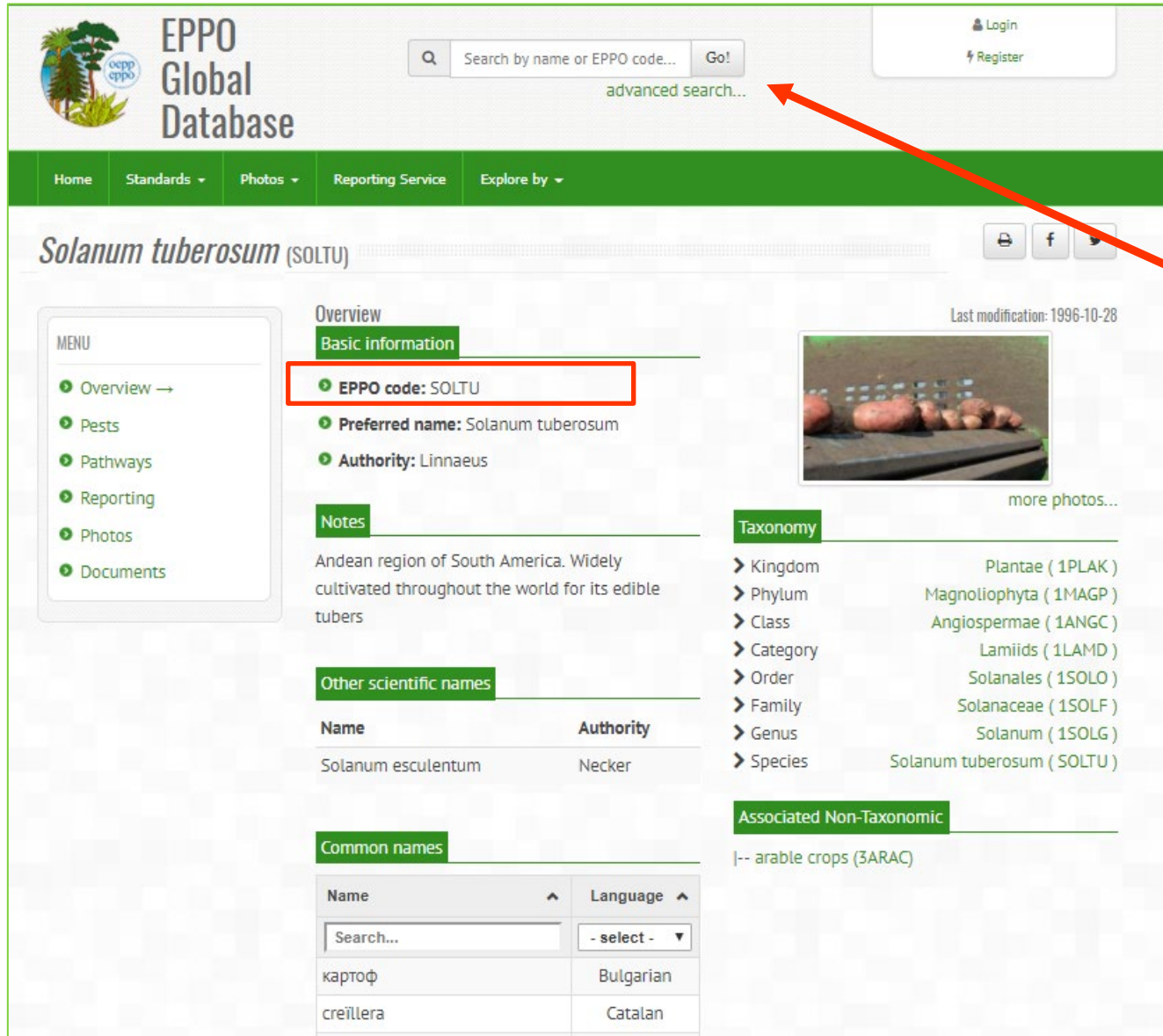
1 biological entity = 1 unique code



**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>



The screenshot shows the EPPO Global Database interface. At the top, there is a search bar with the text "Search by name or EPPO code..." and a "Go!" button. Below the search bar, there is a navigation menu with options like "Home", "Standards", "Photos", "Reporting Service", and "Explore by". The main content area displays the entry for *Solanum tuberosum* (SOLTU). The "Basic information" section is highlighted, and the "EPPO code: SOLTU" is enclosed in a red box. A red arrow points from the search bar to the "EPPO code: SOLTU" entry. The "Taxonomy" section shows the classification of the species, and the "Common names" section lists names in different languages.

EPPO Global Database

Search by name or EPPO code... Go!

advanced search...

Home Standards Photos Reporting Service Explore by

Solanum tuberosum (SOLTU)

Overview

Basic information

EPPO code: SOLTU

Preferred name: *Solanum tuberosum*

Authority: Linnaeus

Notes

Andean region of South America. Widely cultivated throughout the world for its edible tubers

Other scientific names

Name	Authority
<i>Solanum esculentum</i>	Necker

Common names

Name	Language
Search...	- select -
картоф	Bulgarian
creïllera	Catalan

Kingdom Plantae (1PLAK)

Phylum Magnoliophyta (1MAGP)

Class Angiospermae (1ANGC)

Category Lamiids (1LAMD)

Order Solanales (1SOLO)

Family Solanaceae (1SOLF)

Genus Solanum (1SOLG)

Species Solanum tuberosum (SOLTU)

Associated Non-Taxonomic

-- arable crops (3ARAC)

Simple and advanced search tools are available in the database

+

Webservices for batch queries

Contents of the coding system

For each plant/pest:

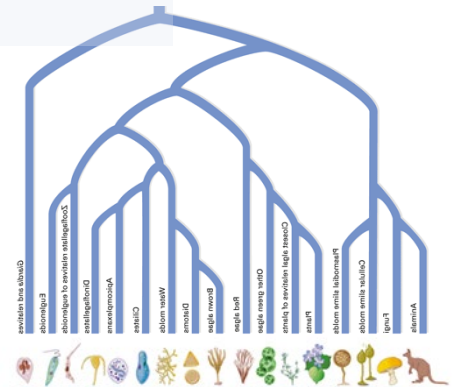
- EPPO code
- Preferred scientific name
- Synonyms (or other scientific names)
- Common names in different languages
- Elements of taxonomy



Simplified taxonomic tree

Kingdom	Animalia	1ANIMK
↳ Phylum	Arthropoda	1ARTHP
↳ Subphylum	Hexapoda	1HEXAQ
↳ Class	Insecta	1INSEC
↳ Order	Hemiptera	1HEMIO
↳ Suborder	Sternorrhyncha	1STERR
↳ Family	Aleyrodidae	1ALEYF
↳ Genus	Bemisia	1BEMIG
↳ 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]

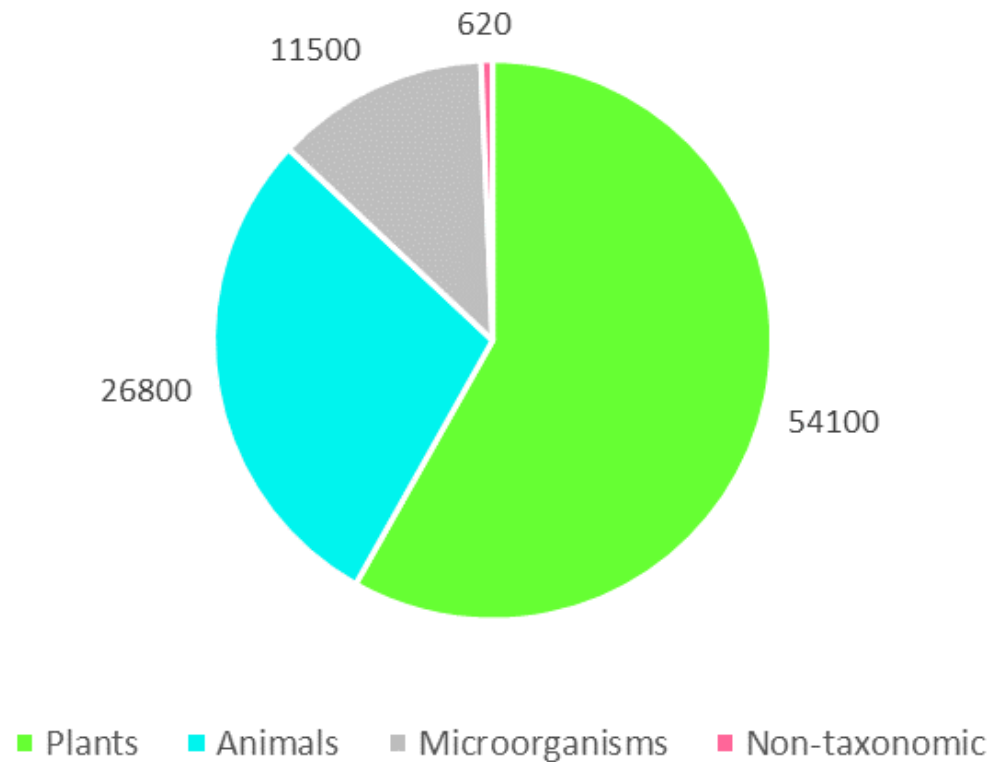
Deactivated codes

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

Non-taxonomic codes

Non-taxonomic 'entities' [NTX]

A few numbers (June 2021)



> 90 400 species
important for
agriculture and plant
protection

Until 2018, 2 000
new codes were
created every year

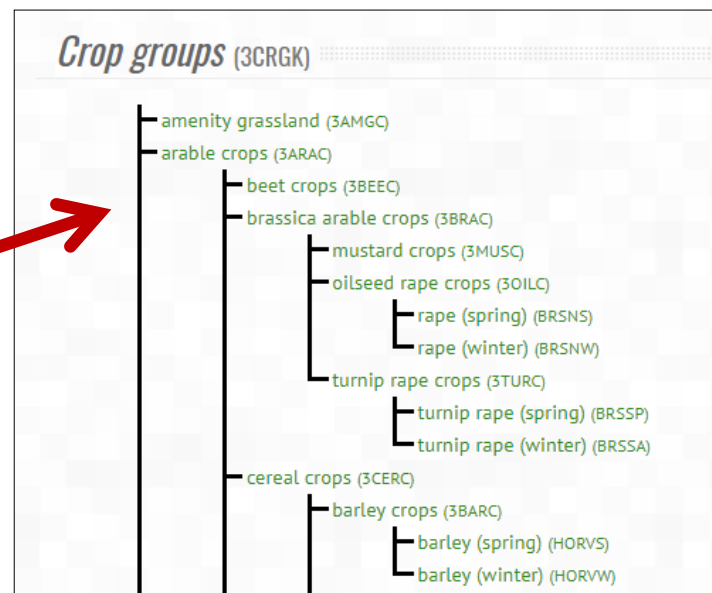
Since 2018, > 4 000
new codes are
created (EU funded
project)

Non-taxonomic Codes for plant protection products (PPP)

- Non-taxonomic codes follow different rules – EPPO Standard PP 1/248 (new 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...



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>

The screenshot shows the EPPO Global Database website. At the top, there is a search bar with the text "Search by name or EPPO code..." and a "Go!" button. Below the search bar is a navigation menu with links for "Home", "Standards", "Photos", "Reporting Service", "Explore by", and "Beta features". The main content area is divided into several sections: "What is EPPO Global Database?", "Current contents", "How to request new EPPO codes?", "Latest news", "How to cite EPPO Global Database?", and "How to submit new photos?". The "Current contents" section lists various data services, including basic information for over 77,000 species, detailed information for over 1,600 pest species, EPPO datasheets, EPPO Standards, and over 4,500 pictures of pests. A red arrow points from the "EPPO Data Services" link in the footer to the "EPPO Data Services" link in the main content area.

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

De : mailing_eppocodes@epppo.it pour le compte de www.epppo.it
A : iaa@epppo.it
Objet : [mailing_eppocodes] EPPO Codes Monthly Newsletter: 2019-11
Date : lundi 2 décembre 2019 11:24:32

EPPO Codes Monthly Newsletter: 2019-11

This free newsletter is addressed to all EPPO Codes users. Its objective is to summarize the main modifications that have been made to the database during a monthly period (the month covered is indicated in the title) and provide users with an easy and transparent way of tracing major changes. The Newsletter contains a list of newly created codes and a list of deactivated codes with their replacement codes. These lists are automatically generated from the database. Other modifications concerning data that is related to already existing codes, such as changes in preferred scientific names, authors of scientific names, synonyms, common names are not shown to keep the Newsletter easy to read. However, these modifications can be traced in the core database files (e.g. for users who are downloading EPPO Codes files via the EPPO Data Services). More general information about the EPPO Codes can be found on the [EPPO website](http://www.epppo.it).

Summary

New codes	457
Deactivated	32

New codes

Microorganism

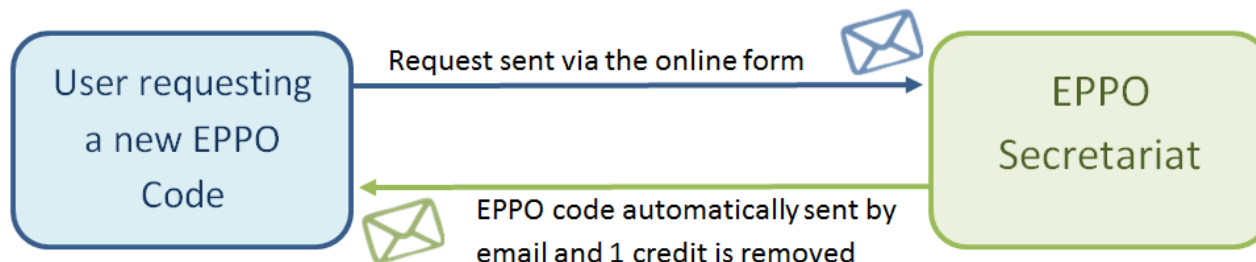
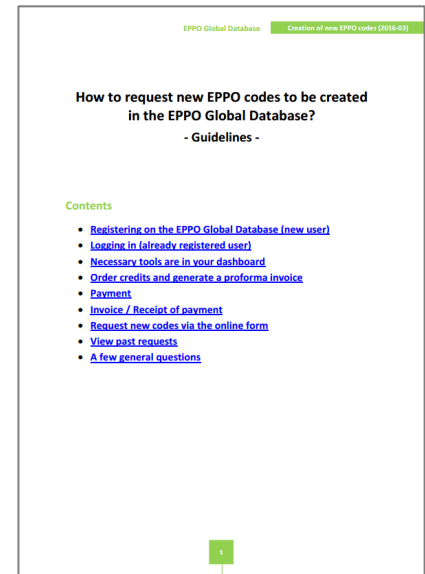
Code	Pref name
ATCYSP	Anthracocystis sp.
CPORSP	Chrysosporthe sp.
NPSDSP	Neopseudocercosporaella sp.
PEROCI	Peronospora cicoris

Animal

Code	Pref name
ALNMSP	Allantonema sp.
ANCTSP	Ancylotoma sp.
ANGCSP	Anguillicola sp.
ARELEL	Araeolaimus elegans
ARELSP	Araeolaimus sp.

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



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

