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)

\[
\text{S O L T U}
\]

*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)

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
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

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

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Animalia</th>
<th>1ANIMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phylum</td>
<td>Arthropoda</td>
<td>1ARTH P</td>
</tr>
<tr>
<td>Subphylum</td>
<td>Hexapoda</td>
<td>1HEXA Q</td>
</tr>
<tr>
<td>Class</td>
<td>Insecta</td>
<td>1INSEC C</td>
</tr>
<tr>
<td>Order</td>
<td>Hemiptera</td>
<td>1HEMIO</td>
</tr>
<tr>
<td>Suborder</td>
<td>Sternorrhyncha</td>
<td>1STERR R</td>
</tr>
<tr>
<td>Family</td>
<td>Aleyrodidae</td>
<td>1ALEY F</td>
</tr>
<tr>
<td>Genus</td>
<td>Bemisia</td>
<td>1BEMIG G</td>
</tr>
<tr>
<td>Species</td>
<td>Bemisia tabaci</td>
<td>BEMITA</td>
</tr>
</tbody>
</table>
EPPO Codes: several subgroups

**Taxonomic codes**

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

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

**Deactivated codes**:  
[pbe][sfm][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’
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

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
Code AAAAA

Species B
Code BBBBB
Deactivated