



EPPO CODES and EPPT

EPPO PLANT PROTECTION THESAURUS

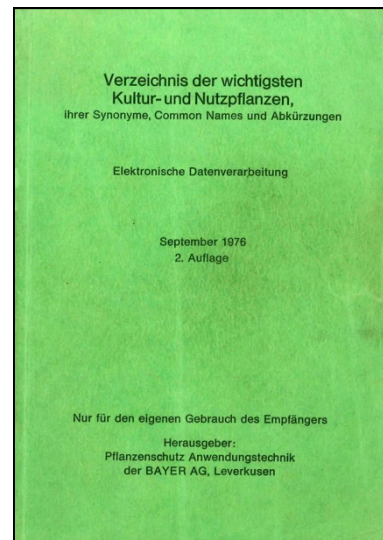
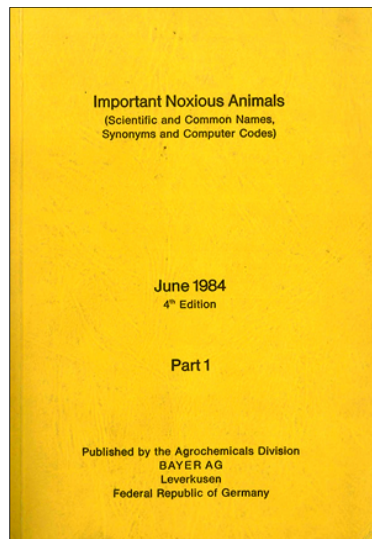
1st meeting of the *ad hoc* Expert Working Group on
Electronic Certification

Paris, 2011-10-04/05

Brief history: a BAYER initiative

In the 1970s, BAYER started to develop computer codes for plant, pest and pathogen important in agriculture and compiled their scientific and common names:

➔ **BAYER CODES**



02549	BEMIGO EHA	BEMISIA GOLDINGI
02550	BEMIIN EHA	BEMISIA INCONSPICUA
	E	SHEETPOTATO WHITEFLY
	E	WHITEFLY, SHEETPOTATO
02551	BEMILO EHA	BEMISIA LONGISPINA
02552	BEMIMA EHA	BEMISIA MANIHOTIS
02553	BEMIMY EHA	BEMISIA MYRICA
	E	MYRICA WHITEFLY
	E	WHITEFLY, MYRICA
02554	BEMINI EHA	BEMISIA NIGERIENSIS
02555	BEMIRH EHA	BEMISIA RHODESIAENSIS
02556	BEMISH EHA	BEMISIA SHINANOENSIS
	E	MULBERRY WHITEFLY
	E	WHITEFLY, MULBERRY
02557	BEMISP EHA	BEMISIA SP.
	S	MOSCA BLANCA
02558	BEMITA EHA	BEMISIA TABACI
	D	BATATENMOTTENSCHILD LAUS
	D	BAUMWOLLMOTTENSCHILD LAUS
	D	TABAKMOTTENSCHILD LAUS
	D	WEISSE FLIEGE
	E	COTTON WHITEFLY
	E	SHEETPOTATO WHITEFLY
	E	TOBACCO WHITEFLY
	E	WHITEFLY, COTTON
	E	WHITEFLY, SHEETPOTATO
	E	WHITEFLY, TOBACCO
	H	KNIMAT ASH HATABAK
	P	MOSCA BRANCA DO FEIJAO (BRASIL)
	S	MOSQUITA BLANCA DEL TABACO (MEXICO)
	T	BEYAZ SINEK
02559	BEMITU EHA	BEMISIA TUBERCULATA
02560	BEMIVA EHA	BEMISIA VAYSSIERI
02561	BEMXSP ENB	BEMBIX SP.
	D	GRABWESPENARTEN
	D	KREISELWESPEN
	D	WESPEN, KREISEL-
02562	BERYMI EGX	BERYTINUS MINOR
02563	BERYSP EGX	BERYTINUS SP.



Brief history: creation of EPPT

- 1997: EPPO continued to maintain and develop the BAYER codes and included them into a thesaurus (EPPT): an interface which facilitate access to codes and names
- 2007: it is accepted to rename BAYER codes as the EPPO codes
- End of 2007: EPPT is freely accessible through the EPPO website

<http://eppt.eppo.org>



EPPO codes: a few general principles

For plant 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

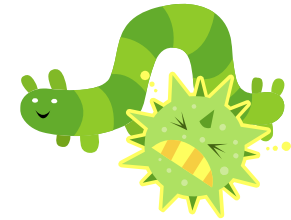
Aleyrodidae Family: 1ALEYF

Sternorrhyncha Suborder: 1STERS

Hemiptera Order: 1HEMIO

Insecta Class: 1INSEC

Animal Kingdom: 1ANIMK



EPPO codes: a few general principles

For cultivated and wild 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

Solanaceae Family: 1SOLF

Polemoniales Order: 1POMO

Dicotyledons Group: 1DICS

Magnoliophyta Division : 1MAGP

Plant Kingdom: 1PLAK



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 => **PHYTPF** is newly created

New subspecies: additional codes

Xylella fastidiosa = **XYLEFA**

Xylella fastidiosa subsp. *multiplex* => **XYLEFM**

Xylella fastidiosa subsp. *pauca* => **XYLEFP**

Xylella fastidiosa subsp. *sandyi* => **XYLEFS**



What is the content of EPPT?

For each organism EPPT contains:

- Preferred scientific name
- EPPO code
- Synonyms and other scientific names (e.g. anamorphs)
- Common names in different languages
- Elements of taxonomy and other classification (of agricultural type initially developed by Bayer)



EPPT: a few general remarks about taxonomy

- EPPT has not been designed as a taxonomic tool
 - It does not display all taxonomic levels (only the main ones)
 - It does not provide an exhaustive list of all synonyms (tries to focus on names which have been used for some time in the literature to facilitate data retrieval)



EPPT and scientific names

Examples of sources used by the EPPO Secretariat

Pests

- Biosis: Zoological Record
- CABI publications (ANI-CD, Plant Protection Database (abstracts), Crop Protection Compendium)
- Global Biodiversity Information Facility : <http://www.europe.gbif.net/>
- International Code of Zoological Nomenclature: <http://www.iczn.org/iczn/index.jsp>
- NCBI Taxonomy Browser. <http://www.ncbi.nlm.nih.gov/sites/entrez?db=Taxonomy>
- Species 2000: <http://www.sp2000.org> (annual checklist and dynamic checklist)

Fungi

- Index Fungorum: <http://www.speciesfungorum.org/Names/Names.asp>
- Mycobank: <http://www.mycobank.org/DefaultPage.aspx>

Bacteria and phytoplasmas

- List of prokaryotic names with standing in nomenclature (1998-2007) by JP Euzéby, <http://www.bacterio.cict.fr>

Viruses

- International Committee on Taxonomy of Viruses (ICTV)

Plants

- Missouri Botanic Garden: <http://mobot.mobot.org/W3T/Search/vast.html>
- International Organization for Plant Information: <http://www.bgbm.fu-berlin.de/IOPI/GPC/query.asp>
- International Code of Botanical Nomenclature: <http://www.bgbm.fu-berlin.de/iapt/nomenclature/code/>



EPPT: common names in different languages

Language	names
Afrikaans	58
Danish	962
Dutch	4728
English	32392
Finnish	694
French	15011
German	20557
Hebrew	132
Hungarian	5
Italian	6444
Japanese	1604
Latin	101972
Malay	3
Norwegian	782
Persian	64
Poland	44
Portuguese	3838
Russian	593
Spanish	12975
Swedish	2607
Turkish	300

Botryotinia fuckeliana (Botrytis cinerea)

- [de] Graufäule
- [de] Grauschimmel
- [en] Brownish-grey mildew
- [en] Grey mould
- [es] Mancha gris de las hojas
- [es] Moho gris: fresa
- [es] Podredumbre gris
- [fr] Cinérite
- [fr] Grillure des feuilles
- [fr] Maladie de la toile
- [fr] Moisissure commune
- [fr] Moisissure grise
- [fr] Pourriture grise

What about codes to describe plant commodities?

- In the past, BAYER had developed codes for other types of categories to characterize plants:
 - NNNZJ: bulb plants
 - NNNOO: fruit plants
 - NNNVV: vegetable plants
 - NNNBA: nursery stock plants
- EPPO had also started to propose codes for plant categories to describe pesticide uses:
 - 3VEGC: vegetable crops
 - 3WOOC: woody plants
 - 3CFLC: cut flower crops

**If commodity categories can be standardized,
EPPO codes can be developed for them**

EPPT in a few numbers

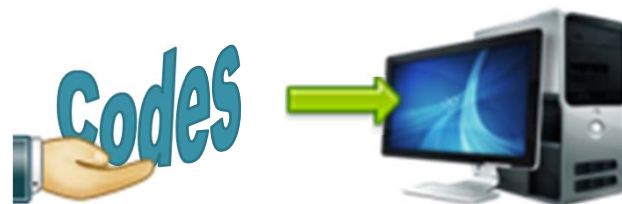
- 28 500 plant species (cultivated, wild, weeds)
- 21 000 animal species (insects, mites, nematodes, rodents ...), biocontrol agents
- 6 500 microorganisms species (bacteria, fungus, viruses and virus-like)

In total more than 56 000 species important for agriculture and plant protection



How to use to EPPO codes?

- EPPT is an interface to consult codes and associated information: free acces www.eppt.org
- EPPO codes can be used in other computer systems: login and password with an annual licence of 150 euros



Why obtain a licence?

- Download the whole contents of the database at anytime (in different formats, Bayer and xml formats)
- Obtain the most recent data (more than 1000 names are added or revised per year)
- Request new codes directly to EPPPO and be informed as soon as they are created





EPPO Plant Protection Thesaurus

EPPT

Request New code

Home

Search

News/modifications

My account

Export

Request New Codes

Forum

Browse Taxonomy

Statistics

Authorities

List Requested

Codes

Add a New Code

History

Control

Disconnect

New organisms proposed for inclusion in the EPPO Code System

On this page, you can propose new organisms for inclusion in the EPPO Code System and obtain new EPPO codes for them. Please fill in the following form.

The EPPO Secretariat will perform the necessary verifications and, when accepted, the name(s) and corresponding new code(s) will be sent to you by email. In addition, the history below summarizes your recent requests and their status (if a code has been given, or is still in preparation.)

Current status of your requests (History table)

Date of request	Latin name	Status	Code	Infos Admin
2009-09-16 11:35	Nematodes (plant parasitic)	In prep.		
2009-09-16 11:34	Nematodes (non-plant parasitic)	In prep.		
2009-12-01 16:43	Actinidia deliciosa (Chevalier) Liang and Ferguson	Done	ATIDE	
2009-11-25 11:33	Prunus persica x Prunus cerasifera	Done	PRNMP	Malheureusement, il n'y semble pas y avoir de nom latin pour cet hybride.
2009-12-01 16:45	Actinidia arguta (Siebold and Zucc.) Planchon	Done	ATIAR	Déjà là!
2009-11-05 14:52	Steneotarsonemus spinki Smiley, 1967	Done	STNTSK	
2009-11-05 14:53	Erannis jacobsoni Diakonoff 1926	Done	ERANJA	
2009-09-29 15:19	Fiorinia proboscidea Green, 1900	Done	FIORPR	
2009-08-20 17:36	Bactericera cockerelli (Sulc, 1909)	Done	PARZCO	nom préféré ajusté, ainsi que les autres espèces proches, selon les documents que tu m'as envoyé
2009-09-16 11:34	Nematodes (general)	Done		
2009-07-24 16:25	Beet soil-borne virus	Done	BSBV00	
2009-07-24 16:24	Xiphinema ifacolum Luc, 1961	Done	XIPHIF	

Propose a new organism (mandatory fields are indicated in bold)

If you have several proposals to make, you simply have to click to the 'send' button and fill in the form again.

Latin name with authority (author's name)

Synonyms (if possible with authority)

Taxonomic position

(e.g. family and appropriate higher taxon)

Reference to an accessible publication

Any additional information or comments you may wish to make (e.g. common names in specified languages)

Send

Special form on the web
to request new codes

Who is using the EPPO codes?

- Phytosanitary industry (Bayer, Syngenta, Dupont ...)
- NPPOs
- Research Institutes (CIRAD)
- International Organizations (FAO, CABI)
- EPPO

