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The use of EPP0 codes for pesticide assessments performed by EFSA

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Trusted science for safe food



IUCLID – the new era for pesticide assessments



Use of EPPO codes in IUCLID study reports and summary reports



Use of EPPO codes in EU guidance documents and OHTs

- The **I**nternational **U**niform **C**hemical **I**nformation **D**atabase is a software application for recording, storing, maintaining and exchanging data on intrinsic and hazard properties of chemical substances and the standard data format agreed for pesticide applications.
- Applicants can use this tool to prepare their dossiers under Regulation (EC) No 1107/2009 (approval or renewal of the approval of a.s.) and Regulation (EC) No 396/2005 (setting of maximum residue levels in food and feed).
- Rapporteur Member States (RMS) and Evaluating Member States (EMS) can access Agency IUCLID to view and evaluate submitted dossiers.
- Interested parties can view the submitted dossiers by accessing Public IUCLID from links in OpenEFSA.

Before 27 March 2021 (entry into force of Transparency Regulation (EU) 1381/2019)

- Submission of pdf files in accordance with OECD dossier structure (OECD Table of Content)
- Limited options for automatic dossier validation (“completeness” checks)

After 27 March 2021

- IUCLID structure (EU Table of Content)
 - Endpoint Study Records based on OECD harmonised templates (OHT):
 - Template with predefined fields where the data is entered to describe the study design and results of the study
 - Endpoint Summary records
 - Flexible records
- In IUCLID documents, the use of pick-lists was implemented, where possible
- Re-use existing, internationally agreed terminologies (EPPO, BBCH, international standards)
- The use of standard terminology opens the possibility to implement more detailed validation rules for the submitted dossiers

Good Agricultural Practice

The GAP is the basis for the assessment of applications for approval/renewal of a.s. and for MRL applications. Therefore the GAP should describe in an unambiguous way how the pesticide shall be used...

but experience has shown that if we do not use a **common language** to describe the GAP, we face difficulties in assessing dossiers.



Old GAP table

Summary of representative uses evaluated, for which all risk assessments needed to be completed (name of active substance or the respective variant)

(Regulation (EU) No 284/2013, Annex Part A, points 3, 4)

| Crop and/or situation (a) | Member State or Country | Product name | F or I (b) | Pests or Group of pests controlled (c) | Preparation | | Application | | | | Application rate per treatment | | | PHI (days) (m) | Remarks |
|---------------------------|-------------------------|-------------------------|------------|--|-------------|----------------|-------------------|-------------------------------------|--------------------|------------------------------------|--------------------------------|--------------------|------------------------|----------------|------------------------------|
| | | | | | Type (d-f) | Conc. a.s. (i) | method kind (f-h) | range of growth stages & season (j) | number min-max (k) | Interval between application (min) | kg a.s./hL min-max (l) | Water L/ha min-max | kg a.s./ha min-max (l) | | |
| Citrus fruit | SEU | Pyriproxyfen 100 g/L EC | F | Scales | EC | 100 g/L | Foliar spray | BBCH 71-89 (May-Oct) | 1 | NA | 0.0025-0.0075 | 2000-3000 | 0.05-0.225 | 28 | |
| Pome fruit (apple, pears) | SEU | Pyriproxyfen 100 g/L EC | F | Scales | EC | 100 g/L | Foliar spray | BBCH 51-59 (Mar-May): pre-flowering | 1 | NA | 0.003-0.006 | 400-1500 | 0.015-0.06 | NA | |
| Tomatoes | SEU | Pyriproxyfen 100 g/L EC | F | White fly | EC | 100 g/L | Foliar spray | BBCH 51-88 (Mar-Oct) | 1-2 | 10-days | 0.0025-0.01 | 300-2000 | 0.0075-0.1125 | 3 | |
| Tomatoes | EU | Pyriproxyfen 100 g/L EC | G | White fly | EC | 100 g/L | Foliar spray | BBCH 51-88 (Jan-Dec) | 1-2 | 10-days | 0.0025-0.01 | 300-2000 | 0.0075-0.1125 | 3 | |
| Ornamentals | SEU | Pyriproxyfen 100 g/L EC | F | White fly | EC | 100 g/L | Foliar spray | BBCH 51-88 (Mar-Oct) | 1-2 | 10-days | 0.005-0.0075 | 1000-1500 | 0.05-0.1125 | NA | 2 applications per 12 months |
| Ornamentals | EU | Pyriproxyfen 100 g/L EC | G | White fly | EC | 100 g/L | Foliar spray | BBCH 51-88 (Jan-Dec) | 1-2 | 10-days | 0.005-0.0075 | 1000-1500 | 0.05-0.1125 | NA | 2 applications per 12 months |

(a) For crops, the EU and Codex classifications (both) should be taken into account; where relevant, the use situation should be described (e.g. fumigation of a structure)

(b) Outdoor or field use (F), greenhouse application (G) or indoor application (I)

(c) e.g. biting and sucking insects, soil-born insects, foliar fungi, weeds

(d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)

(e) CropLife International Technical Monograph no 2, 6th Edition, Revised May 2008, Catalogue of pesticide

(f) All abbreviations used must be explained

(g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench

(h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant-type of equipment used must be indicated

(i) → g/kg or g/L. Normally the rate should be given for the active substance (according to ISO) and not for the variant in order to compare the rate for same active substances used in different variants (e.g. fluoroxypyr). **In certain cases, where only one variant is synthesised, it is more appropriate to give the rate for the variant (e.g. benthialdicarb-isopropyl).**

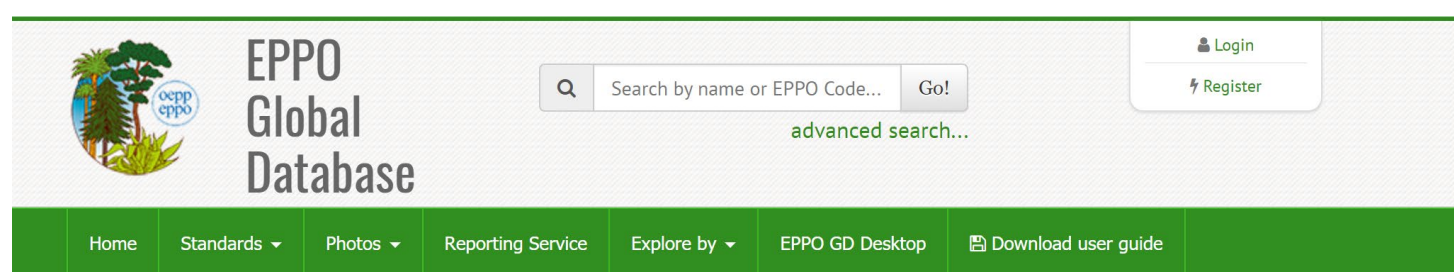
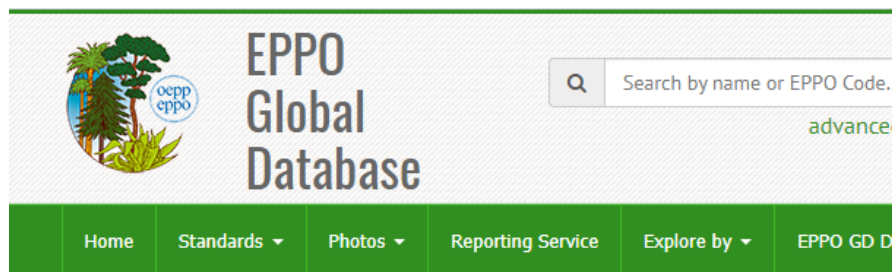
(j) → Growth stage range from first to last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application

(k) → Indicate the minimum and maximum number of applications possible under practical conditions of use

(l) → The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5% ha instead of 0.0125 kg/ha)

| Field name |
|--|
| Administrative data |
| Product |
| Description of key information |
| Crop/treated object |
| Genetical modification of crop |
| Crop destination(s) |
| Authorisation zone |
| MRL zone |
| Country or territory |
| Crop location (F/G/I) |
| Target organisms |
| Scientific name |
| Common name |
| Development stage of target pest |
| Development stage of target plant |
| Major/minor use |
| Application target |
| Method of application |
| Growth stage and season |
| Growth stage of crop (first application) |
| Growth stage of crop (last application) |
| Treatment season |

| Field name |
|--|
| Number of applications (range) |
| Re-treatment interval (in days) |
| Application rate per treatment (product) – range |
| Remarks on application rate |
| Water amount per treatment / spray volume |
| Concentration of formulation in dilution |
| Safener/ synergist/ adjuvant added |
| Application rate per treatment for target a.s. (range) |
| Maximum seasonal application rate (a.s.) |
| Treatment window (for dispensers) |
| Seeding rate (maximum) |
| Planting density |
| Pre-harvest interval |
| Re-entry period livestock |
| Withholding period animal feed |
| Re-entry period |
| Waiting period handling treated product |
| Ventilation practices |
| Plant-back interval |
| Restrictions |
| Type of user |
| Additional information |



What is EPPO Global Database?

EPPO Global Database is maintained by the Secretariat of the [European and Mediterranean Plant Protection Organization \(EPPO\)](#). The aim of the database is to provide all pest-specific information that has been produced or collected by EPPO. The database contents are constantly being updated by the EPPO Secretariat.

Current contents:

- **Basic information for more than 90 000 species** of interest to agriculture, forestry and plant protection: plants (cultivated and wild) and pests (including pathogens and invasive alien plants). For each species: scientific names, synonyms, common names in different languages, taxonomic position, and EPPO Codes are given.
- **Detailed information for more than 1 700 pest species** that are of regulatory interest (EPPO and EU listed pests, as well as pests regulated in other parts of the world). For each pest: geographical distribution (with a world map), host plants and categorization (quarantine status) are given.
- **EPPO datasheets and PRA reports.**
- **EPPO Standards.**
- **Pictures of plants and pests** (more than 10 000).
- **Articles of the EPPO Reporting Service** (since 1974).

EPPO Computer codes for the uses of plant protection products

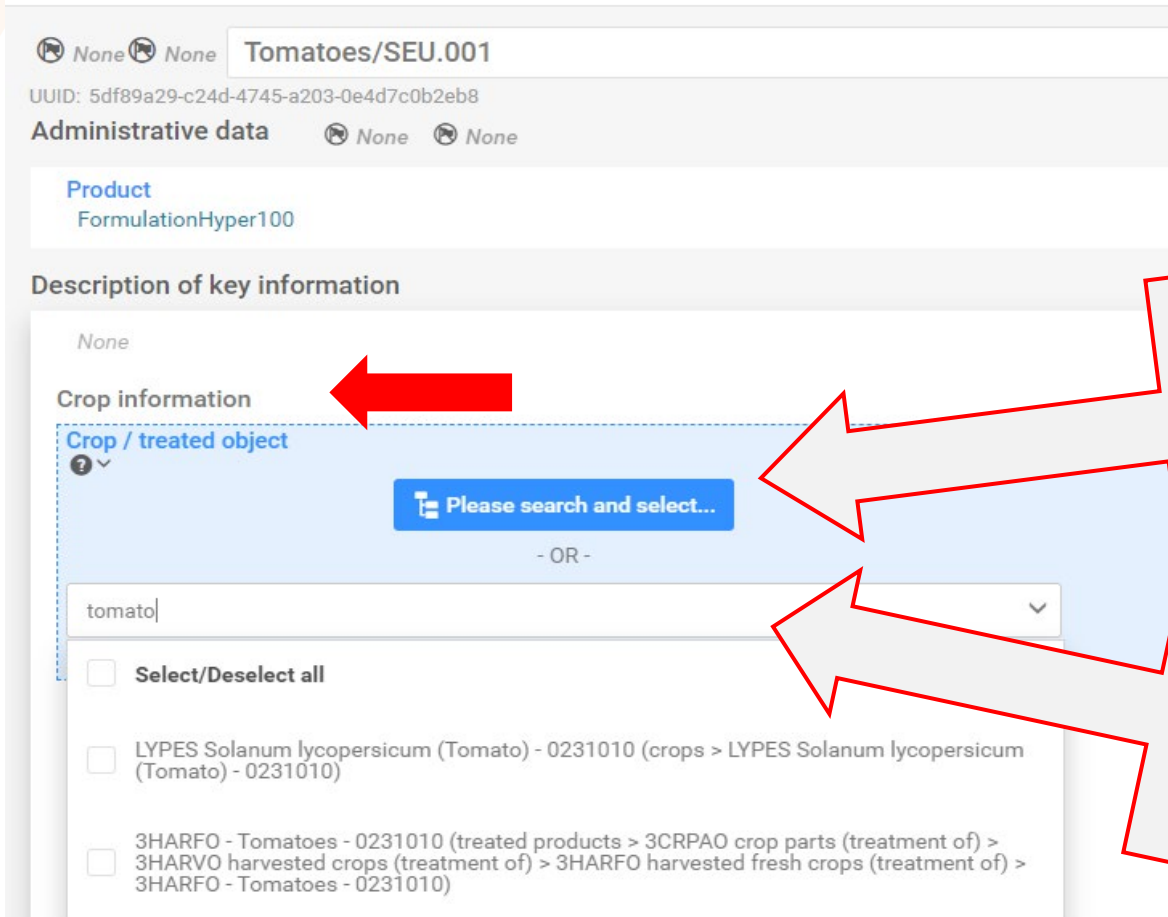
The EPPO harmonized classification and coding of the uses of plant protection products provide a system for consistently characterizing product uses, so that uses in different countries can be compared and assessed for their potential equivalence. In this classification, the main elements characterizing a use are listed below.

Please note that the EPPO harmonized classification is still under development.

| 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... |
| Locations of PPP use | 3CROLK | View the expanded list... |
| Treatments | 3TREAK | View the expanded list... |

Field name: Crop/treated object

Two options to identify the crop:



None None Tomatoes/SEU.001

UUID: 5df89a29-c24d-4745-a203-0e4d7c0b2eb8

Administrative data None None

Product
FormulationHyper100

Description of key information

None

Crop information

Crop / treated object

Please search and select...

- OR -

tomato

Select/Deselect all

LYPES Solanum lycopersicum (Tomato) - 0231010 (crops > LYPES Solanum lycopersicum (Tomato) - 0231010)

3HARFO - Tomatoes - 0231010 (treated products > 3CRPAO crop parts (treatment of) > 3HARVO harvested crops (treatment of) > 3HARFO harvested fresh crops (treatment of) > 3HARFO - Tomatoes - 0231010)

Option 1: Use the hierarchy search tool for crops/treated objects

Option 2: Type the name of the crop (or a text string). Select from the options available.



Mandatory

Picklist based on EPPO crop codes, plus additional information:

Syntax: 5 digits for EPPO codes; Scientific name; (English name) – Code of MRL food classification

Field name: Crop/treated object

Select Crop / treated object

Hierarchy search tool

It is recommended to avoid codes for **crop groups**; instead use EPPO codes for the individual crops.

Work ongoing on linking the EPPO codes to commodity codes used in EU MRL food classification.

Select

Field name: Crop destination

Crop destination(s) ?

grown for harvesting dry (3HDRYD)

grown for harvesting fresh (3HFRED) ✓

grown for human consumption (3HCOND) ✓

grown for industrial use or biomass production (3INDUD)

grown for seed for propagation (3SEEDD)

grown for shade or protection of other crops (3SHADD)

**EPPO codes (3CRODK)
Multiple selection allowed**

Field name: Crop location

Crop location (F/G/I)



EPPO codes with detailed descriptions of the cases. I: Code to be used for crops grown or stored in closed walk-in buildings. This code includes for example mushroom houses and structures for witloof chicory or rhubarb forcing. G: A walk-in, static, closed place of crops production with a usually translucent outer she which allows controlled exchange of material and energy with the surroundings and prevents release of plant protection products into the environment. F: Fields and other structures which do not prevent release of plant protection products into the environment. For crops grown outdoor (F), more details can be reported using the more specific subcodes.

Please select

F - grown in low net shelters (3LNSHL)

F - grown in low net tunnels (3LNTUL)

F - grown in low plastic tunnels (3LPTUL)

F - grown outdoors (3OUTDL)

F - grown in low plastic shelters (3LPSHL)

F - grown in shade houses (3SHADL)

G - grown in greenhouses (3GREEL)



**Mandatory if GAP
is on a crop or for
post-harvest uses
(I)**

**EPPO codes (3CROLK)
Select from picklist**

Field name: Pest/disease to be treated


At least one target organism needs to be defined



Mandatory

Pest / disease to be treated

Target organisms + New item

| # | Scientific name | Common name | Development stage of target pest | Development stage of target plant | Action |
|---|-----------------|-------------|----------------------------------|-----------------------------------|---|
| 1 | None | None | None | None |  |

Picklist with **EPPO codes** (approx. 10.000 codes) for

- target organisms at species level (insects, fungi, etc.,)
- plant growth regulation (e.g. PGR sprout inhibition, PGR desiccant)
- weeds: only general categories (e.g. dicotyledonous weeds, monocotyledonous wees, annual grass weeds, aquatic weeds)

Field name: Pest/disease to be treated

Pest / disease to be treated

Target organisms + New item

| # | Scientific name | Common name |
|---|-----------------|-------------|
|---|-----------------|-------------|

| | | |
|---|------|------|
| 1 | None | None |
|---|------|------|

Set values

Scientific name

Please select

- Abacarus hystrix (ABACHY)
- Abax parallelepipedus (ABAXPE)
- Abortiporus biennis (ABRPBI)
- Abramis ballerus (ABRABA)
- Abraxas grossulariata (ABRXGR)
- Abraxas sylvata (ABRXSY)
- Absidia corymbifera (ABSICO)

If you know the scientific name: select from picklist or type text string

Set values

Scientific name
None

Common name

0/255
press Esc to close

Development stage of target pest
None

Development stage of target plant
None

Free text

Field name: Pest/disease to be treated

Pest / disease to be treated

Target organisms + New item

| # | Scientific name | Common name |
|---|-----------------|-------------|
| 1 | None | None |

**If you do not know the scientific name or the English common name:
Search in EPPO Global Database**

Link to EPPO Global Database:

<https://gd.eppo.int/>

Method of application

- air assisted broadcast spraying-[spray]
- application in overhead irrigation water-[spray]
- bait treatment-[bait]
- banded-[spray]
- basal bark treatment-[no class]
- broadcast-[spray]



Mandatory

Multiple selection is allowed, if the application method belongs to the same class.

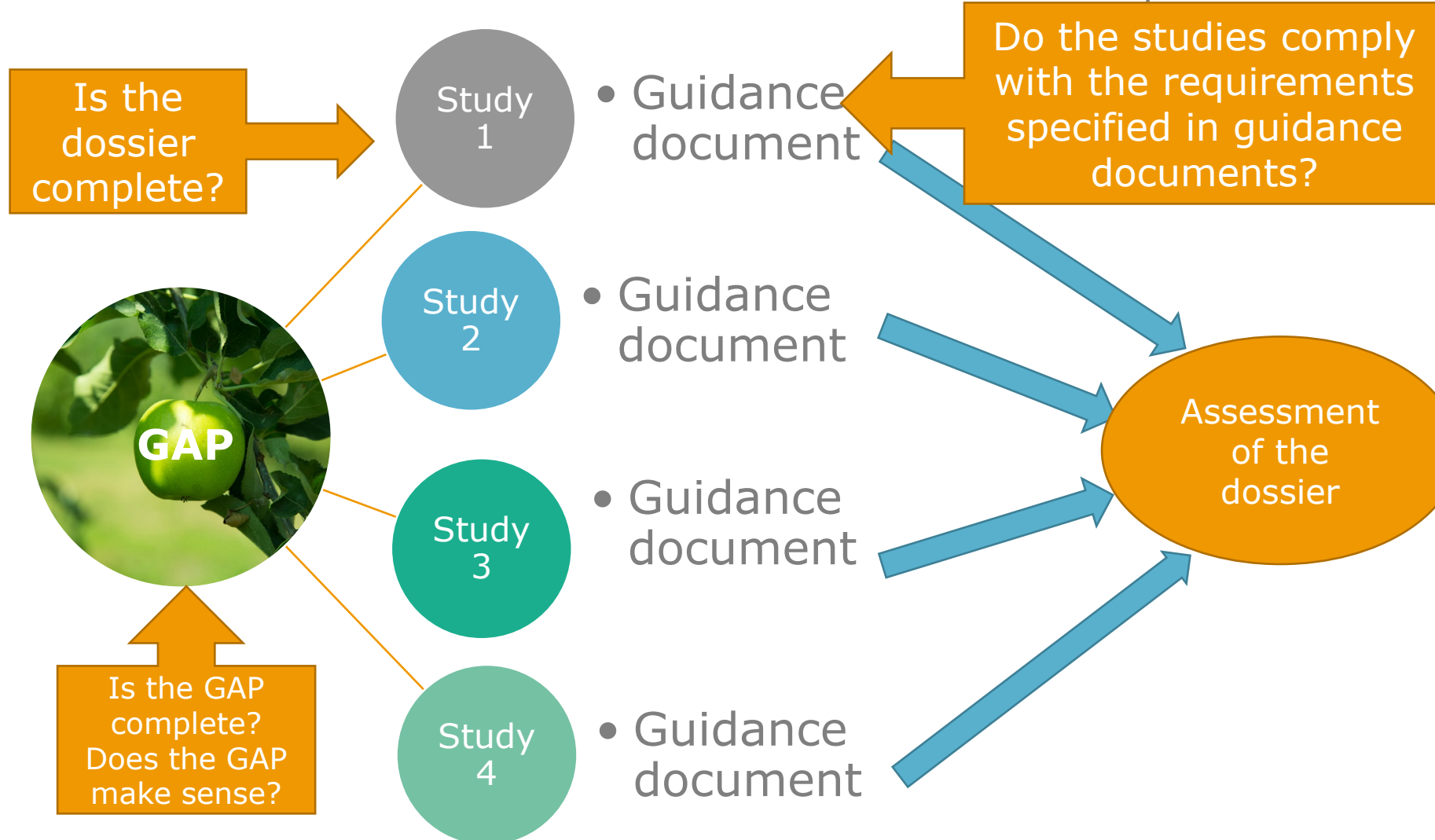
Important:

In the next release of IUCLID, EPPO codes for treatment methods (Treatments, 3TREAK) will be implemented.

The EPPO codes can already be reported in the current release of IUCLID in remarks field.

Validation of IUCLID documents and dossiers

Validation assistant applies quality checks, business rules and completeness checks within a IUCLID document but also across documents/datasets.



The use of harmonized codes in

- GAP,
- study reports (OHT) and
- guidance documents will facilitate to establish
- validation rules,
- can contribute to improve the dossier quality and
- increase the consistency of dossier assessments.

Examples of guidance documents/databases implementing EPPO codes

- EFSA Guidance document on bees
- EFSA Guidance document on birds and mammals
- Mapping of FoodEx 2 codes with EPPO codes
- Database on residue trials (established by BfR): mapping of crops in which the residue trials were performed with EPPO codes
- Further work to be promoted at OECD level



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