



EPPO activities on PPP

CEUREG Forum

Budapest, 2019-10-14/15

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AGENDA

- **EPPO Standards**
- EPPO Databases
- Zonal Assessment
- Planned activities and other updates





49th Working Party on Plant Protection Products

Paris 2019-05-27/29





EPPO Standards approved by the EPPO Council (September 2019)

Specific Standards for Efficacy Evaluation of Plant Protection Products
(series PP 1):

- *Xanthomonas arboricola* pv. *pruni* on stone fruit – **NEW**
- *Pseudomonas syringae* pv. *syringae* on stone fruit – **NEW**
- *Aculops lycopersici* on tomato – **NEW**
- Leaf and plantoppers on grapevines – **NEW**
- Revision of PP 1/74 *Scales on citrus*
- Evaluation of mating disruption techniques against Lepidoptera pests in grapevine, pome and stone fruits under field conditions – **NEW**

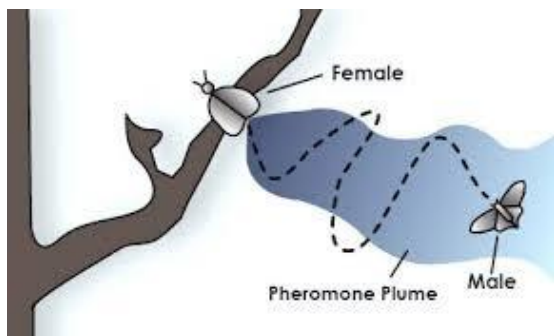




EPPO Standards approved by the EPPO Council (September 2019)

General Standards for Efficacy Evaluation of Plant Protection Products
(series PP 1):

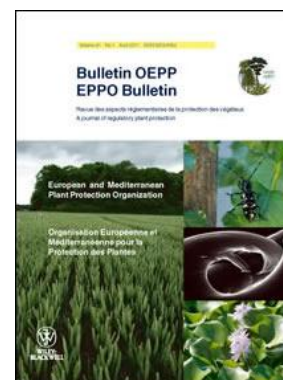
- Revision of PP 1/264 *Principles of trials design and data generation for mating disruption pheromones*
- Revision of PP 1/271 *Guidance on comparative assessment*. This revision followed the **EPPO Workshop** on this topic held in Lisbon on 2018-10-24/25



EPPO Standards on Efficacy Evaluation of PPPs (series PP1)

- This long-term programme has already produced a total of **318** Standards:
 - **286 Specific Standards** (describing the conduct of trials to assess efficacy of individual PPPs against specific pests) and
 - **32 General Standards** (covering all aspects of efficacy to help countries in understanding and fulfilling their obligations in the registration of PPPs)

New and revised Standards approved by the EPPO Council will be published in the *Bulletin OEPP/EPPO Bulletin* 49(3) December (on line before)

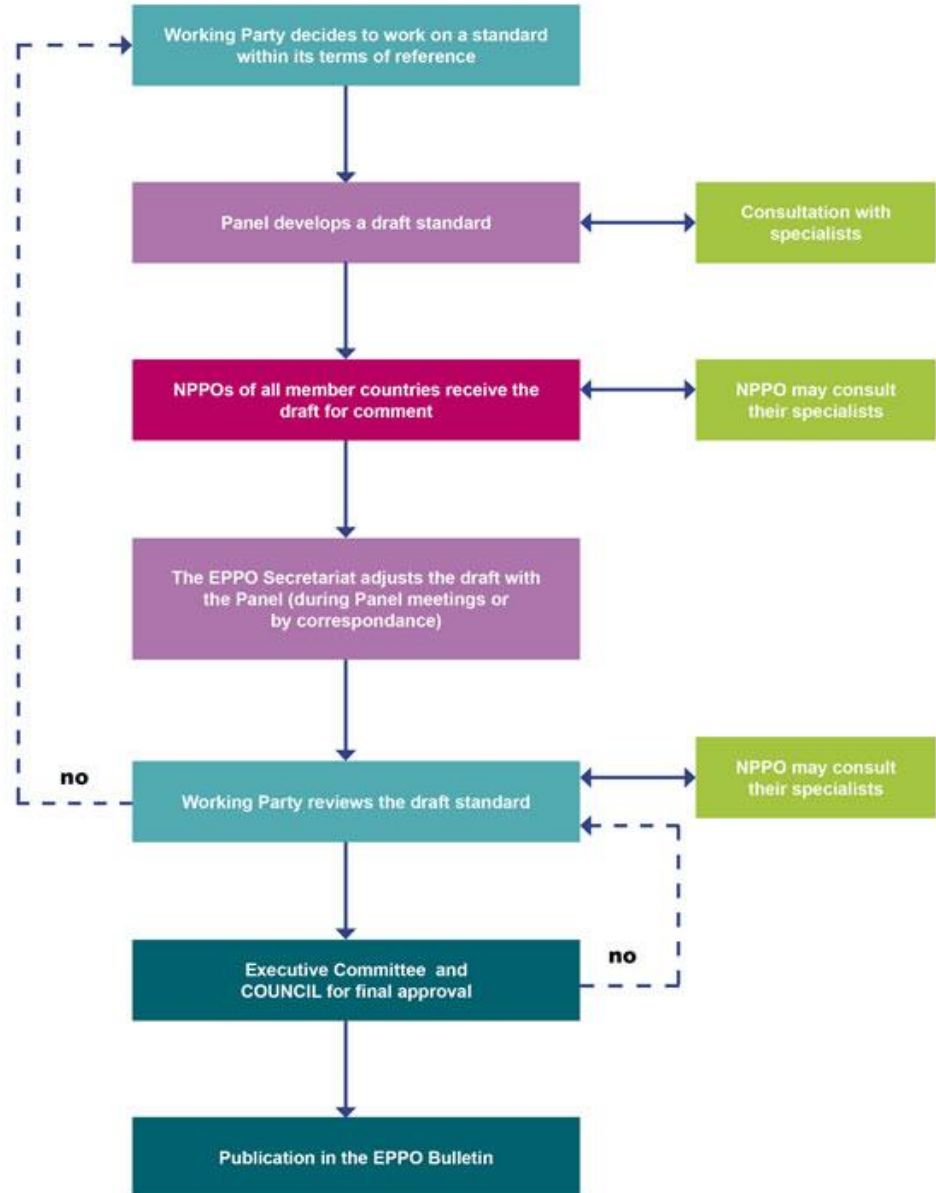


How is the **revision** of a PP1 Standard undertaken?

Upon suggestion of:

- EPPO Panel members;
- External experts (e.g. from industry, other users of Standards...)
- EPPO Secretariat (e.g. when reference to Regulation or other publications needs to be changed);
- Etc.

The suggestion\proposal for the revision is discussed at EPPO Panel level and the output of the discussion is presented at the WP = the technical body who decides about the Panels` work programme



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EPPO PP1 Database on PP1 Standards

- New facilities for users and improved processes in 2018 new payment options (same level of cost)
- **FREE** for Panel members and Authorities (via NPPO)

 **EPPO database on PP1 Standards**

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STANDARDS

- [General Standards](#)
- [Fungicides - Bactericides](#)
- [Insecticides-Acaricides](#)**
- [Herbicides](#)
- [Plant growth regulators](#)
- [Molluscicides](#)
- [Nematicides](#)
- [Rodenticides](#)
- [Side-effects](#)

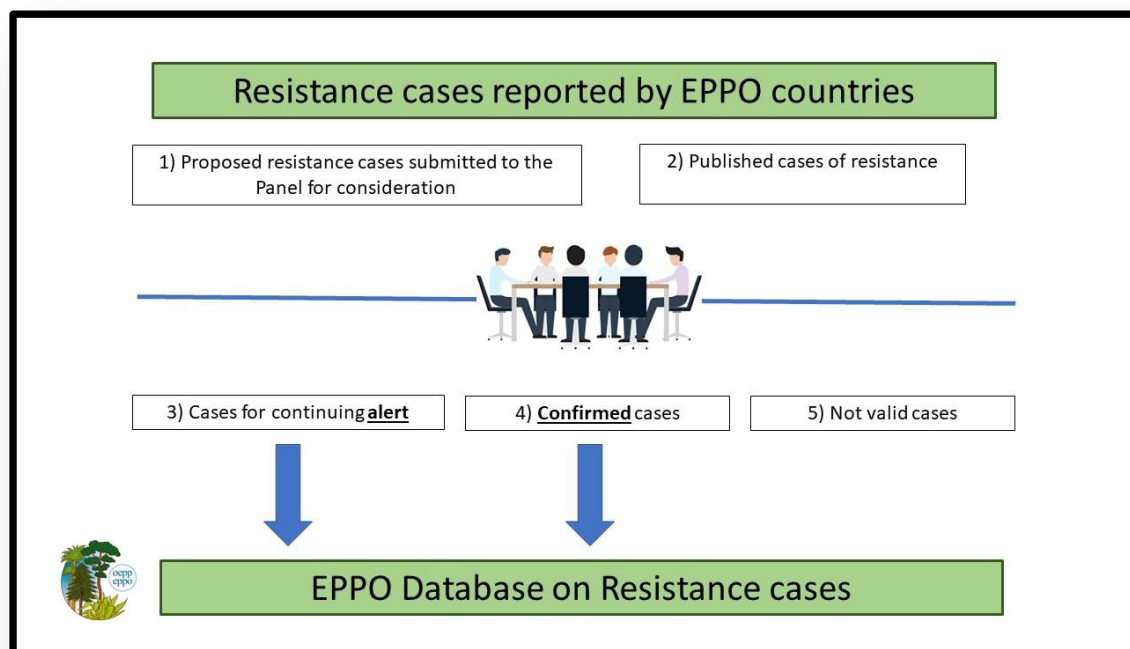
Standards: Insecticides - Acaricides

Number ^	Title	Year of approval	Version	Action
<input type="text" value="Search.."/>	<input type="text" value="Search.."/>	<input type="button" value="- selec"/>	<input type="button" value="- sele"/>	<input type="button" value=""/>
PP1/006(3)	Adoxophyes orana	1997	3	<input type="button" value="View"/>
PP1/007(3)	Cydia pomonella	1997	3	<input type="button" value="View"/>
PP1/008(3)	Delia antiqua	1997	3	<input type="button" value="View"/>
PP1/009(3)	Delia radicum	1997	3	<input type="button" value="View"/>
PP1/010(4)	Delia coarctata	2004	4	<input type="button" value="View"/>
PP1/011(3)	Eupoecilia ambiguella and Lobesia botrana	1997	3	<input type="button" value="View"/>
PP1/012(4)	Leptinotarsa decemlineata	2008	4	<input type="button" value="View"/>
PP1/013(3)	Ostrinia nubilalis	1997	3	<input type="button" value="View"/>
PP1/014(4)	Chamaepsila rosae	2010	4	<input type="button" value="View"/>
PP1/015(3)	Tetranychid mites in orchards	1997	3	<input type="button" value="View"/>
PP1/020(3)	Aphids on cereals	2006	3	<input type="button" value="View"/>



EPPO Database on Resistance Cases (in progress)

- ✓ **Objective:** sharing information on resistance cases including published (confirmed) cases of resistance and reports of suspected resistance (emerging cases) agreed by the EPPO Resistance Panel.
- ✓ Hosted by the EPPO Secretariat




- Prototype for the system validated – pilot project on-going
- Tool for the Panel, access to users beyond Panel under discussion



Extrapolation Tables https://www.eppo.int/ACTIVITIES/plant_protection_products/extrapolation_tables

- ✓ Extrapolation tables to accompany EPPO Standard PP 1/257 *Efficacy and crop safety extrapolations for minor uses*
- ✓ 82 extrapolation tables are available: of which 24 are for herbicides, 26 for fungicides and 32 for insecticides (specific and generic tables)



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EPPO extrapolation tables should be used in conjunction with EPPO Standard PP 1/257 Efficacy and crop safety extrapolations. The tables provide detailed lists of acceptable extrapolations organized by crop groups or pest groups for regulatory authorities and application of plant protection products for minor uses.

Important note: All extrapolations should be viewed on a case-by-case manner and expert judgment should always be applied to the reliability of the information provided through these tables.

Herbicides

Crop group	Extrapolation
Bulb vegetables (<i>Allium</i> spp.)	Effectiveness
Bush fruits	Effectiveness
Flower bulbs and -tubers and bulb- and tuber flower crops	Effectiveness
Grass seed crops	Effectiveness
Peas and beans	Effectiveness
Pome fruit	Effectiveness
Spring cereals including dry-seeded rice	Effectiveness
Stone fruit	Effectiveness
Tree nuts	Effectiveness
Umbelliferous crops	Effectiveness
Vegetable brassicas	Effectiveness
Weeds in Beta crops	Effectiveness
Winter cereals	Effectiveness

EXTRAPOLATION TABLE for EFFECTIVENESS of INSECTICIDES

► PESTS ON CUCURBITACEAE


Cucumber *Cucumis sativus* CUMSC, Courgette *Cucurbita pepo* var. *gromontina* (including zucchini and marrow squash) CUUPG, Marrow *Cucurbita maxima* (Squash and pattypan/scallop squash and gourds) CUUPE, Pumpkin *Cucurbita pepo* var. *meloepo* CUUPM, Melon *Cucumis melo* CUMME, Water Melon *Citrullus lanatus* CITLA

Pest		Crop: within the Cucurbitaceae		Crops: outside Cucurbitaceae	
1 Pest species	2 Pest group name	3 Indicator crops	4 Extrapolation to other crops	5 Data from these crops can support the indicator crops (reduced data or no data*)	6 Extrapolation to crops (reduced or no data*)
<i>Liriomyza trifolii</i> LIRITR, <i>Liriomyza</i> sp. 1LIRIG	Dipteran leaf miners	Melon CUMME or Cucumber CUMSC	All crops within the crop group	Peas and beans, Solanaceous crops, Leafy vegetables	Rhubarb RHERH, Spinach SPQOL, Celeriac APUGR, Celery APUGV, Lamb's lettuce VLLLO, Ornamentals
<i>Delia platura</i> HYLEPL	Root and soil flies	Melon CUMME or Cucumber CUMSC	All crops within the crop group	Field Bean VICFX, Potato SOLTU, Soybean GLXMA, Phaseolus sp. PHSSS, Spinach SPQOL, Asparagus ASPOF, Allium vegetables	Freesia FRESS, Allium vegetables, Asparagus ASPOF
<i>Aphis gossypii</i> APHIGO and <i>Myzus persicae</i> MYZUPE, <i>Myzus</i> sp. MYZUSP, <i>Aulacorthum solani</i> AULASO	Aphids	Melon CUMME or Cucumber CUMSC	All crops within the crop group	Strawberry FRASS, Cotton GOSHI, Solanaceous crops, Phaseolus sp. PHSSS	Chrysanthemum 1CHYG, Hibiscus HIBSS, Rose 1ROSF, Herbs

EPPO Database for Extrapolation tables (first prototype)

- ✓ **Objective:** create a searchable database to retrieve the extrapolation possibilities in the tables developed to accompany EPPO Standard PP 1/257 *Efficacy and crop safety extrapolations for minor uses*.
- ✓ Hosted by the EPPO Secretariat – **Common project with MUCF**





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EPPO extrapolation tables should be used in conjunction with EPPO Standard PP 1/257 Efficacy and crop safety extrapolations. Detailed lists of acceptable extrapolations organized by crop groups or pest groups for regulatory authorities and application of protection products for minor uses.

Important note: All extrapolations should be viewed on a case-by-case manner and expert judgment should always be applied to the reliability of the information provided through these tables.

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Stone fruit	Effectiveness
Tree nuts	Effectiveness
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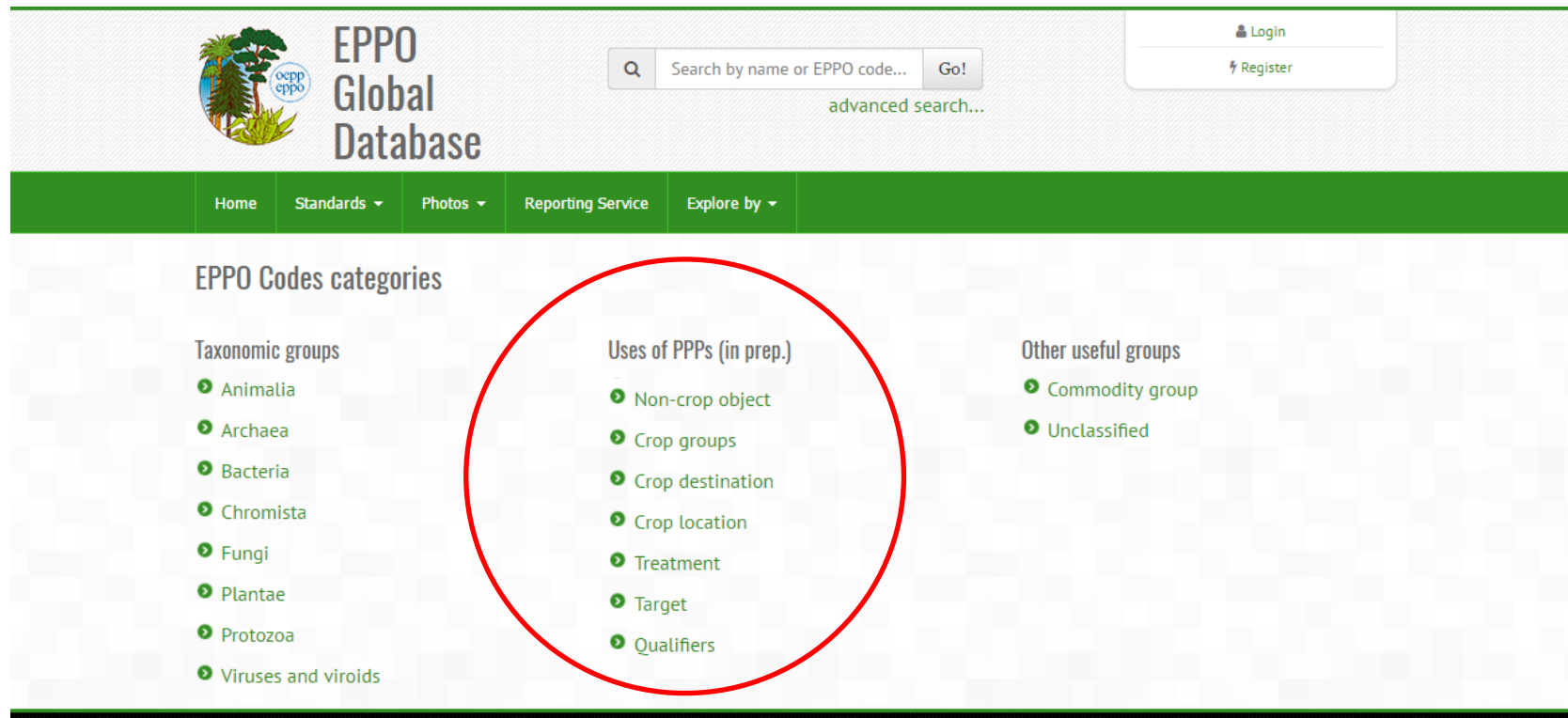
Pest		Crop: within the Cucurbitaceae		Crops: outside Cucurbitaceae	
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<i>Aulacorthum solani</i> AULASO					
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Crop safety

EPPO Codes to describe uses of Plant Protection Products

- P Harm continued harmonized classification ('non-taxonomic' codes) – following principles in PP 1/248 *Harmonized classification and coding of the uses of PPP*
- Useful for harmonized definitions of declared uses and facilitate mutual recognition



The screenshot shows the EPPO Global Database website. The header includes the EPPO logo, a search bar with the text 'Search by name or EPPO code...', and links for 'Login' and 'Register'. The main navigation bar contains links for 'Home', 'Standards', 'Photos', 'Reporting Service', and 'Explore by'. Below the navigation bar, the 'EPPO Codes categories' section is displayed. It is divided into three columns: 'Taxonomic groups', 'Uses of PPPs (in prep.)', and 'Other useful groups'. The 'Uses of PPPs (in prep.)' column is circled in red. The 'Taxonomic groups' column lists: Animalia, Archaea, Bacteria, Chromista, Fungi, Plantae, Protozoa, and Viruses and viroids. The 'Uses of PPPs (in prep.)' column lists: Non-crop object, Crop groups, Crop destination, Crop location, Treatment, Target, and Qualifiers. The 'Other useful groups' column lists: Commodity group and Unclassified.

EPPO Codes categories		
Taxonomic groups <ul style="list-style-type: none">AnimaliaArchaeaBacteriaChromistaFungiPlantaeProtozoaViruses and viroids	Uses of PPPs (in prep.) <ul style="list-style-type: none">Non-crop objectCrop groupsCrop destinationCrop locationTreatmentTargetQualifiers	Other useful groups <ul style="list-style-type: none">Commodity groupUnclassified

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

- Close to finalization - Treatment categories + Revision PP 1/248
- Cooperation with European Commission (PPPAMS) on-going

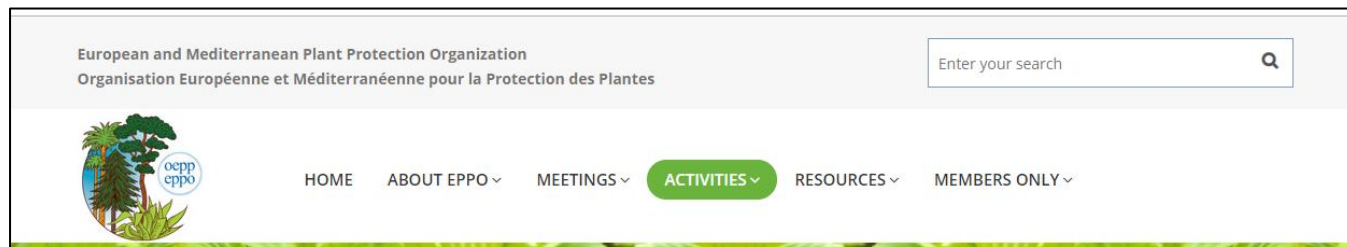


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Zonal Assessment https://www.eppo.int/ACTIVITIES/plant_protection_products/zonal_assessments



- PP 1/241 – Guidance on comparable climates
- PP 1/269 – Comparable climates on global level
- PP 1/278 – Principles of zonal data production and evaluation

The latest versions of the above standards can be accessed from the [EPPO database on PP1 Standards](#)

Examples of zonal efficacy evaluations

Important note: These documents are intended to assist applicants and evaluators to interpret EPPO Standard PP1/278 Principles of zonal data production and evaluation. They provide specific examples of the data required to support intended uses. It should be noted that the number and distribution of trials will vary depending on the zone and the intended use. Expert judgement should be applied in all cases. These examples are 'working documents' meaning that they may be modified over time, and that further examples will be added when they are completed. The approval body for these documents is the EPPO Working Party on Plant Protection Products.

Product	Pest	Crop	Zone
Herbicide	<i>Apera spica-venti</i> - Loose silky bent (APESV)	Winter wheat	European Central Zone
Herbicide	Weeds	Maize	European Central Zone
Fungicide	<i>Mycosphaerella graminicola</i> - Septoria leaf blotch (SEPTTR)	Winter wheat	European Central Zone
Fungicide	<i>Puccinia striiformis</i> f. sp. <i>tritici</i> - Yellow rust (PUCCST)	Wheat	European Central Zone
Fungicide	<i>Venturia inaequalis</i> - Apple scab (VENTIN)	Apple	European Central Zone
Insecticide	Aphids, thrips and whiteflies	Ornamental plants in greenhouses	European Union
Plant Growth Regulator	Clarification of efficacy data requirements for the authorization of a plant growth regulator in winter oilseed rape in the European Central authorization zone	Winter oilseed rape	European Central Zone
Plant Growth Regulator	Clarification of efficacy data requirements for the authorization of a plant growth regulator in oilseed and turnip rape in the European Northern authorization zone	Oilseed and turnip rape	European Northern Zone



Zonal Assessment

Examples of zonal efficacy evaluations

to assist applicants and evaluators to interpret EPPO Standard PP1/278
Principles of zonal data production and evaluation

European and Mediterranean Plant Protection Organization
Organisation Européenne et Méditerranéenne pour la Protection des Plantes

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Zonal Efficacy Assessments

In the framework of the EU regulations, mutual recognition and zonal authorizations are core principles when submitting dossiers for the registration of plant protection products. As many of the technical details for conducting zonal authorizations needed to be harmonised among countries, EPPO has developed Standards on this issue. In addition to these recommendations, EPPO is also providing examples of zonal efficacy evaluations for specific cases.

Although the outcomes of this work are directly relevant to EU Member States, it is acknowledged that the principles defined for zonal evaluation may be used by other EPPO member countries wishing to adopt the zonal concept for the authorization of plant protection products.



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The three maps below represent the EPPO climatic zones, the EU authorisation zones according to Regulation (EC) No 1107/2009, and their superimposition. They might be found a useful aid for facilitating discussions on issues regarding trial number and location.



- PP 1/241 – Guidance on comparable climates
- PP 1/269 – Comparable climates at global level
- PP 1/278 – Principles of zonal data production and evaluation

The latest versions of the above standards can be accessed from the [EPPO database on PP1 Standards](#) ^{Q7}

Examples of zonal efficacy evaluations

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https://www.eppo.int/ACTIVITIES/plant_protection_products/zonal_assessments

NEW : Methodologies to address the succeeding crops data requirements for co-formulated plant protection products





Harmonized dose expression of PPP in high growing crops

- Follow up of the *Workshop on harmonized dose expression for the zonal evaluation of PPP in high growing crops* (Vienna, 2016-10-18/20) and EWGs

Published on EPPO Website:

- Glossary of Terms for Dose Expression for PPP in high growing crops**
- Standard Measurement Procedure in high growing crop trials**



Revision of EPPO Standard PP 1/239 *Dose expression for plant protection products* in 2020?

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Programme of activity of the Working Party on PPP

- Discussion on *EPPO Strategy for 2021-2025*:

- ✓ What are the priorities?
- ✓ Criteria for prioritization?
- ✓ Need for new arrangements for the efficacy evaluation Panels?
- ✓ More formal processes to streamline the work? e.g. ToRs for EWG
- ✓ Panel work programmes, horizontal revisions?
- ✓ Making connections between Phytosanitary Regulations and Plant Protection Products



Future Panel meetings

- Panel on Efficacy Eval. of Fungicides Insecticides **2019-11-26/25, Braunschweig (DE)**
- Panel on Efficacy Eval. of Herbicides and PGRs **2020-03-17/19, venue TBC**
- Panel on Harmonization of Data on PPP **2020-03-03/04, Brussels TBC**
- Panel on General Standards **2020-03-12/13, Paris**
- Panel on Resistance to PPPs **2020-09-16/18, Paris**

Expert Working Groups

- EWG on Dose Expression **Teleconference**
- EWG on Plant Elicitors **Teleconference**
- EWG on Extrapolation tables ?



Working Party on PPP

- WP PPP **2020-06-15/17**, Portugal

Future EPPO Workshops

The EPPO Workshop on digital technologies for PPP efficacy data generation, 2020-10-24/25 **venue TBC**

Ms Hall (ECPA), Mr Kudsk (DK), Ms Jilesen (NL), Ms Papamichail (GR) in the Organizing Committee.
November 2019 the second teleconference



Any other topic for future EPPO workshops?
Are there any needs from non-EU EPPO countries?



EPPO Secretariat human resourcing issues in 2019

- Retirement of **Martin Ward** and **Nico Horn** Senior Officer Plant Health, Netherlands Food and Consumer Product Safety Authority (NVWA) elected new Director-General of EPPO - started 1st of January 2019 - for 5 years
- Retirement of lead Scientific Officer **Vlasta Zlof** in January 2019 after long term sick leave, after > 20 years with EPPO
- During the sick leave some capacity issues; Assistance from national experts + consultancy with **Sue Mattocks** from CRD UK
- New recruitment: **Ewa Matyjaszczyk** as Scientific Officer started on 1st September 2019



NEW EPPO Website

European and Mediterranean Plant Protection Organization
Organisation Européenne et Méditerranéenne pour la Protection des Plantes

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EPPO activities on plant protection products

The functions set out in the EPPO Convention include advising member governments on the measures necessary to register or authorize plant protection products, and to control their marketing and use on their territories, in compliance with the principles of good plant protection practice as well as, whenever possible, the principles of integrated control. In order to achieve this goal, a large number of EPPO Standards have been developed, mainly in the area of efficacy evaluation of plant protection products which is one of the key elements when establishing registration dossiers. It should be noted that other key elements of registration (i.e. toxicology and residues) are not part of EPPO's work but are addressed by other international bodies.

EPPO Standards on plant protection products are intended to be used by member governments, in their capacity

Tweets by @EPPO_efficacy



EPPO Efficacy Retweeted



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EPPO host the Minor Uses Coordination Facility (minoruses.eu). Its mission is to enable farmers to produce high quality crops by filling minor uses gaps through efficient collaboration to improve



EPPO Efficacy

22 Tweets



Éditer le profil

EPPO Efficacy

@EPPO_efficity

EPPO advises member governments on measures necessary to authorize plant protection products. EPPO Standards for efficacy evaluation [#pesticides](#) [#CropProtection](#)

Paris, France [eppo.int/ACTIVITIES/ppp...](#)

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EPPO host the Minor Uses Coordination Facility ([minoruses.eu](#)). Its mission is to enable farmers to produce high quality crops by filling minor uses gaps through efficient collaboration to improve availability of chemical & non-chemical tools within an IPM framework



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Suivre



AHDB Potatoes
@AHDB_Potatoes

Suivre

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#InstantCLIO

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Thank you !