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

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EXTRAPOLATION TABLE for EFFECTIVENESS of INSECTICIDES
► PESTS ON CURRANTS AND BERRIES

INTRODUCTION

The table provides detailed lists of acceptable extrapolations organized by crop groups, for regulatory authorities and applicants, in the context of the registration of plant protection products for minor uses. The table should be used in conjunction with the EPPO Standard PP1/257(1) - *Efficacy and crop safety extrapolations for minor uses*. It is important to ensure that expert judgment and regulatory experience are employed when using these tables. EPPO excludes liability as to the reliability of the information provided through these tables.

The scope for extrapolation may be extended as data and experience with a certain plant protection products increases. The applicant should always provide appropriate justification and information to support the proposed extrapolation. For example, comparability of target biology may be a relevant factor, either in extrapolating to other target species or for the same target onto another crop. For crops, factors such as comparable growth habit, structure etc. should be considered.

TABLE FORMAT

The main pest species for the crop group are listed in Column 1 (although this is not exhaustive), and the pest group to which they belong is specified in Column 2. Companies may choose if they wish to provide data only for individual named species, which would then appear individually listed on the label. But underlined species have been identified as key major targets and as such it is advisable to generate data on these. Furthermore, data on these species then allow a claim to be made for the whole pest group (as specified in Column 2), if required. If a claim for the whole pest group is required but there is no underlined species, then data must be generated on all listed species.

Column 3 indicates the key indicator crop(s) for the crop group. In some instances this may be only one specified crop. In other cases, when separated by an 'or', the company may choose from a range of alternatives within the group. Data generated on crops in Column 3 may be used to extrapolate to all crops listed in Column 4. However, it is preferable to have data on several of the crops within the crop group, but data on the indicator crop should be available. In specific circumstances data from crops outside of the crop group highlighted by an asterisk in column 5 can replace the need for any data on the indicator crop in column 3.

Column 5 identifies whether relevant data on crops outside the crop group, against the same target, may help to reduce the amount of required data on the indicator crop. It may be possible for a direct extrapolation without the need for data on the indicator crop (marked with an asterisk (*)). However, this is dependent on the extent of available data and similarity of crop/target biology. The company should provide an appropriate reasoned case when wanting to use data from crops outside the crop group.

Column 6 gives examples of acceptable extrapolations for a particular pest claim onto other minor use crops. This is not a comprehensive list. Whether extrapolation may be direct (no data, marked with an asterisk (*)), or require additional supporting data on the minor use crop, will again be dependent on the extent and relevance of the existing database and companies should provide an appropriate reasoned case. If the crop is considered to be a major crop in some countries then it may not be appropriate to include in this column, and further data would be required. Companies will need to justify the status of the major crop/minor use.

EXAMPLE OF HOW TO USE THE TABLE:

Pests		**Crops: 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*)**
Delia platura 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* sp. FRESS, Allium vegetables, Asparagus ASPOF

E.g. : In the first row above, in order to support a claim for *Delia platura* on all Cucurbitaceae crops, data can be generated either on cucumber, or melon. The number of trials required on these crops can be reduced if there are existing relevant data for *Delia platura* on field bean or potato or soybean or *Phaseolus* spp. or spinach or asparagus or allium vegetables. Data on *Delia platura* generated on Cucurbitaceae can also be used to support claims on a minor use crop such as Freesia, Allium vegetables or Asparagus, but further additional data may be required. The company may also need to consider and justify the minor use status of the specified crop.

EXTRAPOLATION REGARDING PROTECTED/OUTDOOR SITUATIONS

Please note that where crops may be grown in both protected and field situations, and where significant differences are expected in pest relevance or crop agronomy between indoor and outdoor situations, it is important to generate a proportion of the data on crops grown in both situations to ensure the product has been tested under a suitable range of typical and challenging conditions.

EXTRAPOLATION TABLE for EFFECTIVENESS of INSECTICIDES

► PESTS ON CURRANTS AND BERRIES

Cowberry *Vaccinium vitis-idaea* VACVI, Cranberry *Vaccinium macrocarpon* VACMA, Bilberry *Vaccinium myrtillus* VACMY, Mossberry *Vaccinium oxycoccos* VACOX, Blueberry *Vaccinium corymbosum* VACCO, Blackberry *Rubus fruticosus* RUBFR, Burbank's thornless blackberry *Rubus ulmifolius* RUBUL, Raspberry *Rubus idaeus* RUBID, Tayberry *Rubus Tayberry hybrids* RUBTY, Boysenberry, Loganberry, Veitchberry *Rubus x loganobaccus* RUBLO, Black currant *Ribes nigrum* RIBNI, Red and white currants *Ribes rubrum* RIBRU, Gooseberry *Ribes uva-crispa* RIBUC

Pest		**Crop: currants and berries**		**Crops: outside currants and berries**	
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*)**
Aphis schneideri APHISC, *Aphis sp.* APHISP, *Cryptomyzus ribis* CRYMRI, *C.galeopsidis* MYZLGA, *Aphidula grossulariae* (=*Aphis grossulariae)* APHDGR, *Hyperomyzus* sp. HYPESP, *Rhopalosiphoninus ribesinis* RHOSRI, *Nasonovia ribisnigri* NASORN	Aphids	Blackcurrant RIBNI or Redcurrant RIBRU	Cowberry VACVI, Bilberry VACMY, Gooseberry RIBUC Jostaberry	Apple MABSS, Lettuce LACSA	
Aphis idaei APHIID or *Aphis sp.* APHISP or *Amphorophora rubi or* AMPHRU or *Aphis ruborum* APHIRB or *Sitobion fragariae* MACSFR	Aphids	Raspberry RUBID or Blackberry RUBUL	Other *Rubus* sp. RUBSS	Apple MABSS	

Pulvinaria vitis PULVVI *Pseudaulacaspis pentagona* PSEAPE, *Quadraspidiotus perniciosus* QUADPE, *Parthenolecanium corni (=Eulecanium corni)* LECACO	Scales	Raspberry RUBID Blackcurrant RIBNI	Cowberry VACVI, Bilberry VACMY, Red Currant RIBRU, other *Rubus* sp RUBSS	Peach PRNPS, Apple MABSS, Vineyard VITSS, Sweet almond PRNDU, Common walnut IUGRE	Woody ornamentals
Dasineura tetensi DASYTE, *Dasineura* sp DASYSP	Midges	Redcurrant (or Whitecurrant) RIBRU or Blackcurrant RIBNI	*Ribes* sp. RIBSS, *Vaccinium* sp. VACSS, *Rubus* sp RUBSS	Ornamentals, Apple MABSS, Pear PYUSS	*Dasineura* sp*. in Apple MABSS, Pear PYUCO, Quince CYDOB, Medlar MSPGE, Ornamentals
Resseliella theobaldi THOMTE, *Lasioptera rubi* LASORU	Midges	Raspberry RUBID	*Ribes* sp. RIBSS, other *Rubus* sp RUBSS	Ornamentals, Pear PYUSS	Ornamentals Mango MNGIN, Lavender LAVSS
Drosophila suzukii DROSSU	Fruit flies	*Rubus* sp. RUBSS or *Vaccinium* sp. VACSS	*Rubus* sp. RUBSS, *Ribes* sp. RIBSS *Vaccinium* sp. VACSS	Cherry PRNAV Strawberry FRAAN	Stone fruits, Grapes VITVI Strawberries FRAAN, Figs FIUCA, Persimmon DOSKA, Kiwi ATIDE
Anthonomus rubi ANTHRU or *Byturus tomentosus* BYTUTO	Bud weevils	*Rubus* sp. RUBSS	*Rubus* sp. RUBSS	Strawberry* FRAAN, Apple MABSS	
Synanthedon myopaeformis SYNAMY *Synanthedon tipuliformis* SYNATI	Clearwing moths	Blackcurrant RIBNI or Redcurrant RIBRU or Gooseberry RIBUC	Other *Ribes* sp. RIBSS *Vaccinium* sp VACSS	Apple* MABSS	
Synanthedon hyaleiformis SYNASP		Raspberry RUBID	Other *Rubus* sp. RUBSS	Apple* MABSS	

Adoxophyes orana CAPURE or *Epiblema uddmanniana* NOTCUD, *Archips* sp. ARCHSP, *Cnephasia* sp. CNEPSP, *Cacoecimorpha pronubana* TORTPR, *Acleris laterana* ACLRLA, *Celypha lucunana* ARGPLA, *Spilonota ocellana* TMETOC,	Tortricidae (Leaf roller moths)	Raspberry RUBID or Blackcurrant RIBNI	*Rubus* sp. RUBSS, *Ribes* sp. RIBSS, *Vaccinium* sp VACSS	Apple* MABSS, Sweet almond PRNDU, Strawberry FRAAN, Woody ornamentals	Woody ornamentals
Lampronia capitella INCUCA, *Abraxas grossulariata* ABRXGR, *Alloclemensia mesospilella* INCUTQ *Euhyponomeutoides albithoracellus* EUHYAL, *Operophtera brumata* CHEIBR, *Orthosia* sp. ORTOSP, *Zophodia convolutella* ZOPHCO	Other lepidoptera than Tortricidae	Blackcurrant RIBNI	Cowberry VACVI, Bilberry VACMY, Red Currant RIBRU Gooseberry RIBUC	Apple* MABSS, Woody ornamentals	Woody ornamentals
Zeuzera pyrina ZEUZPY	Lepidoptera (wood-borer)	Blackcurrant RIBNI	*Rubus* sp. RUBSS, *Ribes* sp. RIBSS *Vaccinium* sp VACSS	Apple* MABSS or Pear* PYUSS Common walnut IUGRE, Sweet chestnut CSNSA, Common hazelnut CYLAV	Woody ornamentals
Lygocoris pabulinus PYGUPA, *Campylomma verbasci* CAMYVE, *Atractotomus mali* ATRAMA	Bugs	Redcurrant RIBRU	*Rubus* sp. RUBSS, *Ribes* sp. RIBSS	Apple* MABSS	Wild apple MABSY, Pear PYUCO, Quince CYDOB, Medlar MSPGE, Strawberry FRASS
Nematus ribesii NEMARI, *Nematus leucotrochus* NEMALE	Sawfly	Gooseberry RIBUC	*Ribes* sp. RIBSS		
Pristiphora rufipes PRISPA					

Metallus pumilus METLPU		Blackberry RUBFR	Raspberry RUBID		
Macropsis fuscula MACPFU or *Typhlocyba rosae* (=*Edwardsiana rosae)* TYCYRO*, Edwardsiana crataegi* TYCYFR, *Empoasca vitis* EMPOFL	Leafhoppers	Raspberry RUBID	*Rubus* sp. RUBSS	*Edwardsiana rosae** in apple	Apple MABSS, Grapes VITVI, Herbs, Woody ornamentals
Cecidophyopsis ribis ERPHRI, *Cecidophyopsis* sp.*,* CECPSP, *Phytoptus avellanae* ERPHAV	Gall mites	Blackcurrant RIBNI	*Ribes* sp. RIBSS *Vaccinium* sp VACSS	Apple MABSS	Hazel CYLAV, Common walnut IUGRE
Aculus schlechtendali VASASD or *Epitrimerus pyri* EPITPI*, Phyllocoptes gracilis* ACEIGR, *Aculus fockeui* VASAFL	Rust mites	Raspberry RUBID	*Rubus* sp. RUBSS	Apple* MABSS or Pear* PYUSS	Hazel CYLAV, Common walnut IUGRE
Acalitus essigi ACEIES	Blackberry mites	Blackberry RUBFR		Ornamentals (*Buxus* sp. BUXSS, *Prunus* sp. PRNSS)	
Phyllocoptes gracilis (=*Eriophyes gracilis*) ACEIGR, *Acalitus essigi* ACEIES	Eriophyids	Raspberry RUBID	Blackberry RUBUL and other *Rubus* sp. RUBSS	Apple MABSS, Pear PYUSS, Plum PRNDO	
Tetranychus urticae TETRUR, *Panonychus ulmi* METTUL	Mites	*Ribes* sp. RIBSS	*Rubus* sp. RUBSS, *Ribes* sp. RIBSS *Vaccinium* sp. VACSS	Apple* MABSS, ornamentals, Tomato LYPES, Strawberry FRAAN, Sweet almond PRNDU, Common walnut IUGRE	Ornamentals
Bryobia ribis BRYORI, *Bryobia praetisosa* BRYOPR		*Ribes* sp.RIBSS or *Rubus* sp.RUBSS			