European and Mediterranean Plant Protection Organization
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EXTRAPOLATION TABLE for EFFECTIVENESS of INSECTICIDES ► PESTS ON MISCELLANEOUS FRUIT (INEDIBLE PEEL, LARGE)

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 product 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 MISCELLANEOUS FRUIT (INEDIBLE PEEL, LARGE)

Avocado *Persea americana* PEBAM, Banana *Musa acuminata* MUBAC *Musa balbisiana* MUBBA, Mango *Mangifera indica* MNGIN, Papaya *Carica papaya* CIAPA, Pomegrenate *Punica granatum* PUNGR, Cherimoyas *Annona cherimola* ANUCH, Guavas *Psidium guajava* PSIGU, Pineapple *Ananas comosus* ANHCO, Breadfruit *Artocarpus altilis* ABFAL, Durian *Durio zibethinus* DURZI, Soursops *Annona muricata* ANUMU

Pests		**Crops: within Miscellaneous Fruit (Inedible Peel Large)**		**Crops: outside Miscellaneous Fruit (Inedible Peel Large)**	
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*)**
Pseudacysta perseae PSEYPE, *Planococcus citri* PSECCI, *Saissetia oleae* SAISOL, *Ceroplastes sinensis* CERPSI	Lace bug	Avocado PEBAM or Mango MNGIN or Pomegranate PUNGR		Plane PLTSS, Citrus fruit, Olea 1OLVG	Eggplant SOLME
Oligonychus sp. OLIGSP (e.g. *O. perseae*), *Aceria granati* (=*Eriophyes granati)* ACEIGA, *Lorrya formosa* LORRFO, *Tenuipalpus punicae* TENUPU	Mites	Avocado PEBAM or Guava PSISS or Papaya CIAPA or Mango MNGIN or Pomegranate PUNGR	Guava PSISS, Mango MNGIN, Papaya CIAPA, Banana MUBSS	Citrus CIDSS, Peach PRNPS, Apple MABSS, Banana MUBSS, Passion fruit PAQSS	Passion fruit PAQSS

Paratetranychus yothersi PARTYO, *Aceria mangiferae* ERPHMG		Mango MNGIN or Avocado PEBAM or Banana MUBSS or Guava PSISS or Papaya CIAPA	Avocado PEBAM, Papaya CIAPA, Guava PSISS, Banana MUBSS	Citrus CIDSS, Peach PRNSP, Apple MABSS, Passion fruit PAQSS	Passion fruit PAQSS
Chrysomphalus sp. CHRYSP, *Hemiberlesia* sp. HEBESP, *Paracoccus* sp. PRCCSP, *Paracoccus marginatus* PACOMA, *Pseudococcus* sp. PSECSP, *Pseudococcus jackbeardsleyi* PSECJB, *Dysmicoccus brevipes* DYSMBR *Icerya seychellarum* ICERSE *Dysmicoccus grassii* DYSMGR *Pseudaulacaspis pentagona* PSEAPE	Scales	Avocado PEBAM or Banana MUBSS or Guava PSISS or Mango MNGIN or Pineapple ANHCO or Papaya CIAPA	Guava PSISS, Papaya CIAPA, Mango MNGIN, Banana MUBSS, Pineapple ANHCO	Citrus CIDSS, Peach PRNSP, Apple MABSS,	
Bephratelloides pomorum 1BEGHP	Hymenoptera	Cherimoya ANUCH or all other annonaceae ANUSS	All other annonaceae ANUSS	Peach PRNSP	
Pentalonia nigronervosa PENLNI, *Aphis punicae* APHIPU *Aphis gossypii* APHIGO, *Aphis fabae* APHIFA	Aphids	Banana MUBSS or Mango MNGIN or Pomegranate PUNGR		Citrus CIDSS Peach PRNSP	
Telchin licus (=Castnia licus) CASTLI	Caterpillars	Banana MUBSS		Apple MABSS, Peach PRNPS, Coffe COFAR, Passion fruit PAQSS	Coffee COFAR, Passion fruit PAQSS

Cosmopolites sordidus COSMSO	Weevils	Banana MUBSS			All tropical root vegetables
Cratopus exquisitus CTPUEX, *Cratopus brunipes* CTPUBR		Guava PSISS		Apple MABSS	
Ceratitis sp. CERTSP, *Bactrocera sp.* BCTRSP, *Anastrepha sp.* ANSTSP	Fruit flies	Cherimoya ANUCH or Guava PSISS or Mango MNGIN or Papaya CIAPA or Soursops ANUMU or Pomegranate PUNGR	*Annonaceae* ANUSS, Guava PSISS, Papaya CIAPA, Mango MNGIN	Citrus CIDSS, Peach PRNSP, Litchi LIHCH, Starfruit AVRCA, Passion fruit PAQSS, Apple MABSD, Fig FIUCA, Pear PYUCO, Kaki DOSKA	Litchi LIHCH, Passion fruit PAQSS, Starfruit AVRCA
Cerconota anonella STENAN, *Nephopterix beharella* NPPTBE	Worms	Cherimoya ANUCH or Soursops ANUMU	All other *Annonnaceae* ANUSS, Pineapple ANHCO	Apple MABSS, Peach PRNSP, Litchi LIHCH, Pineapple ANHCO	Litchi LIHCH
Thecla basilides THECBA		Pineapple ANHCO	*Annonnaceae* ANUSS	Apple MABSS, Peach PRNPS, Litchi LIHCH, Annonaceae ANUSS	Litchi LIHCH,
Polyphagotarsonemus latus HEMTLA	Broad Mite	Mango MNGIN or Papaya CIAPA	Papaya CIAPA Mango MNGIN	Citrus CIDSS	
Procontarinia matteiana PRONMA *Procontarinia mangiferae* EROSIN	Gall midges (leaves and flowers)	Mango MNGIN		Pear PYUSS, Raspberry RUBID	Tomato LYPES
Scutigerella sp. SCUTSP *Hanseniella sp.* HANLSP	Symphilids	Pineapple ANHCO		All tropical root vegetables	All tropical root vegetables
Ectomyelois ceratoniae MYELCE	Carob moth (*Pyralidae*)	Pomegranate PUNGR		Orange CIDSI, Grapefruit CIDPA	
Capnodis tenebrionis CAPNTE	Peach capnodis	Pomegranate PUNGR		Peach PRNPS, Apricot PRNAR	

Solenopsis geminata SOLEGE	Ants	Banana MUBSS, Pineapple ANHCO	Pineapple ANHCO	Citrus CIDSS, Sugar cane SACSS, Passion fruit PAQSS	Passion fruit PAQSS, Sugar cane SACSS
Crematogaster sp. CREMSP		Pineapple ANHCO, Banana MUBSS,	Banana MUBSS,	Citrus CIDSS, Sugar cane SACSS, Passion fruit PAQSS	Passion fruit PAQSS, Sugar cane SACSS
Aleurodicus dispersus ALEDDI*, Aleurothrixus floccosus* ALTHFL, *Dialeurodes citrifolii* DIALCT, *Orchamoplatus mammaeferus* ORCMMA	Whiteflies	Avocado PEBAM Banana MUBSS, Guava PSISS Mango MNGIN, Papaya CIAPA	Guava PSISS, Papaya CIAPA, Mango MNGIN, Banana MUBSS, Avocado PEBAM	Citrus CIDSS, Palmtree	Palmtree
The following extrapolation possibilities are proposed to be addressed in tables covering generic pests[1]					
Selenothrips rubrocinctus SLENRU *Heliothrips haemorrhoidalis* HELTHA, *Thrips sp.* THRISP *Chaetanephothrips sp.* CHANSP *Danothrips trifasciatus* DANOTR *Elixothrips brevisetis* ELIXBR *Frankliniella parvula* FRANPR	Thrips	Avocado PEBAM, Guava PSISS, Banana MUBSS, Mango MNGIN	Mango MNGIN, Guava PSISS, Banana MUBSS,	Peach PRNPS, Citrus CIDSS, Passion fruit PAQSS	Passion fruit PAQSS
Lygus sp. LYGUSP	Bug	Mango MNGIN	Avocado PEBAM	Pear PYUSS	
Radopholus similis RADOSI	Nematodes	Banana MUBSS	Pineapple ANHCO	Citrus CIDSS, Tropical root vegetables	Tropical root vegetables,

[1] The following lines will be deleted from the table once the Generic tables will be approved and published.

Rotylenchulus reniformis ROTYRE		Pineapple ANHCO, Banana MUBSS		Citrus CIDSS, All tropical root vegetables, other sensitive vegetable crops	
Tetranychus sp. TETRSP	Mites	Papaya CIAPA Banana MUBSS, Guava PSISS, Avocado PEBAM, Mango MNGIN	Mango MNGIN, Avocado PEBAM, Guava PSISS, Banana MUBSS	Citrus CIDSS, Apple MABSS, Peach PRNPS, Passion fruit PAQSS	Passion fruit PAQSS