European and Mediterranean Plant Protection Organization
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EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES
► DISEASES ON CITRUS FRUIT

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:

Diseases		**Crops: within the Vegetable Brassicas**		**Crops: outside the Vegetable Brassicas**	
1 **Pathogen species**	**2** **Disease 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*)**
Alternaria sp. (*Alternaria brassicicola* ALTEBI*, A. brassicae* ALTEBA*, A. raphani* ALTERP)	Alternaria	Cauliflower BRSOB or broccoli BRSOK or Brussels sprouts BRSOF	Leafy and flower head and root brassicas	Oilseed rape BRSNN, Mustard SINSS	Carrot DAUCS, Tomato LYPES

E.g.: In the first row above, in order to support a claim for *Alternaria sp* on leafy and flower head and root brassicas, data can be generated on Cauliflower or Broccoli or Brussels sprouts. The number of trials required on this crop can be reduced if there are existing relevant data for *Alternaria spp* on oilseed rape or mustard. Data on *Alternaria sp* generated on Vegetable Brassicas can also be used to support claims on minor use crops such as carrot and tomato, 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 FUNGICIDES
► DISEASES ON CITRUS FRUIT
CIDPA Grapefruit *Citrus paradisi*, CIDSI Orange *Citrus sinensis*, CIDLI Lemon *Citrus limon*, CIDAF Lime *Citrus aurantifolia*, CIDRE Mandarin *Citrus reticulata sensu stricto*, FOLMA and FOLJA Kumquats *Fortunella margarita, F. japonica*

Diseases		**Crops: within Citrus Fruit**		**Crops: outside Citrus Fruit**	
1 Pathogen 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*)**
Glomerella cingulata (=Colletotrichum gloeosporioides, Gloeosporium limetticola) GLOMCI	Anthracnose	Orange CIDSI or Mandarin CIDRE or Lemon CIDLI	Other relevant citrus fruit		Avocado PEBAM Papaya CIAPA Mango MNGIN
Mycosphaerella spp. MYCOSP	Leaf spot			Cherry PRNCE or Peach PRNPS or Persimmon DOSVI	Cherry PRNCE or Peach PRNPS or Persimmon DOSVI
Plenodomus tracheiphilus (=Phoma tracheiphila) DEUTTR	Dieback of citrus (Mal secco)				
Elsinoe fawcetti ELSIFA, *Elsinoe australis* ELSIAU	Scab				
Phyllosticta citricarpa (=Guignardia citricarpa) GUIGCI	Black spot				

Pseudocercospora angolensis CERCAN	Cercospora leaf and fruit spot	Orange CIDSI or Mandarin CIDRE or Lemon CIDLI	Other relevant citrus fruit		
Glomerella acutata (=Colletotrichum acutatum) COLLAC	Postbloom fruit disease			Olive OLVEU, Strawberry FRASS	Olive OLVEU, Strawberry FRASS
Diapothe citri (=Phomopsis citri) DIAPCI	Melanose				
Alternaria alternata ALTEAL, *Alternaria alternata f. sp. citri* ALTEAC	Brown spot			Pomegranate PUNGR	Pomegranate PUNGR
Phytophthora citricola PHYTCI, *Phytophthora citrophthora,* PHYTCO, *Phytophthora nicotianae var. Parasitica (=Phytophthora parasitica)* PHYTNP	Phytophthora disease, Crown and root rot			Apple MABSS, Any stone fruit, Corossol ANUSS	Anonnaceae ANUSS, Avocado PEBAM, Guava PSISS, Papaya CIAPA, Passion fruit PAQSS, Pineapple ANHCO, Any stone fruit, Guava PSISS
The following extrapolation possibilities are proposed to be addressed in tables covering generic pests[1]					
Pseudomonas syringae pv. syringae PSDMSY	Bacterium disease	Orange CIDSI or Mandarin CIDRE or Lemon CIDLI	Other relevant citrus fruit	Peach PRNPS, Apricot PRNAR	
Xanthomonas axonopodis pv. citri (=X. campestris pv. citri) XANTCI	Canker				

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