

EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES ► DISEASES ON STONE 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 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.

Column 5 identifies whether data on other crops 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 further 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 supporting data from other crop groups.

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.

EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES

► DISEASES ON STONE FRUIT:

PRNPS peach *Prunus persica* including PRNPN nectarine *P. persica* var. *nucipersica* (and similar hybrids), PRNAR apricot *P.armeniaca*, PRNDU almond *P. dulcis*, PRNDO plum *P. domestica*, PRNDD damson plum *P. damascene*, PRNDS Mirabelle *P. domestica* var. *syriaca*, PRNDI greengage (reine-claude) *P. domestica* subsp. *italic*, PRNDT bullace *P. domestica* subsp. *insititia*, PRNSN sloe *P. spinosa*, PRNSC Japanese plum *P. salicina*, PRNAV sweet cherry *P. avium*, PRNCE sour cherry *P. cerasus*

Pests		Crops: within stone fruits		Crops: outside stone fruits	
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*)
<i>Podosphaera pannosa</i> SPHRPA or <i>Podosphaera</i> spp. PODOSP	Powdery mildew	Peach PRNPS or Cherry	Stone fruit	Pome fruit Roses	Avocado PEBAM, Mango MNGIN, Papaya CIAPA
<i>Venturia carpophila</i> VENTCA	Scab	Peach PRNPS or Almond	Stone fruit		
<i>Blumeriella jaapii</i> (= <i>Blumeriella hiemalis</i>) BLUMJA	Leaf spot	Cherry	Stone fruit		

<i>Polystigma rubrum</i> POLTRU	Leaf spot	Plum	Stone fruit		
<i>Apiognomonina erythrostoma</i> GNOMER	Leaf spot (or scorch)	Apricot PRNAR or Cherry	Apricot PRNAR, Cherry		
<i>Stigmia carpophila</i> (= <i>Wilsonomyces carpophilus</i>) STIGCA	Leaf spot (shot hole disease)	Cherry or Apricot PRNAR	Other relevant Stone fruits		Ornamental Prunus
<i>Mycosphaerella</i> spp. MYCOSP (mainly <i>M. cerasella</i> MYCOCE and <i>M. pruni-persicae</i> MYCOPE)	Leaf spot	Cherry or Peach PRNPS	Cherry, Peach PRNPS, Nectarine PRNPN	Citrus (<i>M. citri</i> MYCOCI), Pear (<i>M. pyri</i> MYCOPY)	Citrus (<i>M. citri</i> MYCOCI), Pear (<i>M. pyri</i> MYCOPY)
<i>Taphrina</i> spp. TAPHSP (mainly <i>T. deformans</i> TAPHDE)	Leaf curl	Peach PRNPS or Nectarine PRNPN	Other relevant Stone fruits		
<i>Tranzschelia</i> spp. 1TRANG (mainly <i>T. discolor</i> TRANDI, <i>T. pruni-spinosae</i> TRANPS)	Rust	Plum or Peach PRNPS	Other relevant Stone fruits		Raspberry RUBID, Sweet almond PRNDU
<i>Monilinia</i> spp. MONISP mainly <i>M. laxa</i> MONILA	Blossom & twig blight and Fruit rot	Peach PRNPS or apricot or Plum or Cherry	Other relevant Stone fruits	Apple MABSD, Pear PYUCO, Quince CYDOB,	Blueberry (<i>M. vaccinii-corymbosi</i> MONIVC),
<i>Glomerella cingulata</i> GLOMCI and <i>Glomerella acutata</i> COLLAC causing "bitter rot" on pome fruits and anthracnose of stone fruits <i>Gloeosporium coryli</i> on nuts (= <i>Neofabraea malicorticis</i> = <i>Cryptosporiopsis</i> sp.) PEZIMA	Fruit rot, Anthracnose	Peach PRNPS or Cherry	Other relevant Stone fruits	Pear PYUCO	Common walnut IUGRE
<i>Botryosphaeria obtusa</i> BOTSOB <i>B. dothidea</i> BOTSDO ("white mold")	Fruit rot	Peach PRNPS	Other relevant Stone fruits	Grape VITVI, Quince CYDOB, Pear PYUCO,	

<i>Diaporthe eres</i> DIAPER ("Phomopsis canker" also on fruits)	Cankers	Peach PRNPS	Cherry, Plum,	Pear PYUCO, Quince CYDOB	
<i>Valsa cincta</i> VALSCI or <i>V. leucostoma</i> VALSLE or <i>V. ceratosperma</i> VALSCE	Cankers	Peach PRNPS or Apricot PRNAR	Other relevant <i>Prunus</i> species		
<i>Chondrostereum purpureum</i> STERPU ("silver blight")	Cankers (also leaf silver blight)	Plum or peach PRNPS	Cherry, Nectarine PRNPN, Almond, Apricot PRNAR	Apple MABSD, Pear PYUCO,	
<i>Phomopsis amygdali</i> FUSCAM	Cankers	Peach PRNPS	Plum, Almond, Nectarine PRNPN, Apricot PRNAR		
<i>Eutypa lata</i> EUTYLA	Cankers	Apricot PRNAR	Almond, Plum	Relevant Pome fruit, Grape VITVI	Grape VITVI, Walnuts IUGRE, Hazelnuts CYLAV, Citrus, Figs, FIUCA Currents
<i>Cytospora cincta</i> (= <i>Valsa cincta</i>) VALSCI	Dieback of fruit trees	Apricot PRNAR, Peach PRNPS, Sweet almond PRNDU	Sweet almond PRNDU		
The following extrapolation possibilities are proposed to be addressed in tables covering generic pests					
<i>Pseudomonas syringae</i> pv <i>avellanae</i> PSDMSY	Bacterial canker	Peach PRNPS, Sweet, almond PRNDU	Plum, Cherry, apricot PRNAR, Sweet almond PRNDU		
<i>Verticillium dahliae</i> VERTDA	Verticillium wilt	Peach PRNPS, Sweet, almond PRNDU	All cherry, apricot PRNAR, Sweet almond PRNDU		Ornamentals

<i>Xanthomonas sp.</i> XANTSP, <i>Erwinia chrysanthemi</i> ERWICH	Bacterium disease	Peach PRNPS			Mango MNGIN, Papaya CIAPA, Pineapple ANHCO, Citrus CIDSS, Walnuts IUGRE, Ornamentals
<i>Botryotinia fuckeliana</i> BOTRCI	Fruit rot	Peach PRNPS	Other relevant Stone fruits	Grape, Pear PYUCO, Quince CYDOB, Common hazel CYLAV	Figs FIUCA, Kiwi ATIDES, Citrus
<i>Penicillium spp.</i> PENISP mainly <i>P. expansum</i> PENIEX ("blue mold")	Fruit rot	Cherry or Peach PRNPS or Plum	Other relevant Stone fruits	Grape, Citrus	Grape VITVI, Citrus, Figs FIUCA, Pomegranate PUNGR