

EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES ► DISEASES ON STRAWBERRIES

INTRODUCTION

The table provides detailed lists of acceptable extrapolations organized by crop groups¹, 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.

¹ In this table the crop group is constituted by a single crop FRASS *Fragaria* sp.

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 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 STRAWBERRIES

FRASS *Fragaria* sp.

Pests		Crops: within Strawberries		Crops: outside Strawberries	
1 Pathogen species 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>Glomerella acutata</i> COLLAC	Anthraco	Strawberry FRASS		Pome and stone fruits, Fruiting vegetable of solanaceae	Pome and stone fruits
<i>Mycosphaerella fragariae</i> MYCOFR, <i>Diplocarpon earlianum</i> DIPCEA, <i>Gnomonia comari</i> (Gnomonia fructicola, Zythia sp.) GNOMFR	Leaf spot disease	Strawberry FRASS			
<i>Alternaria alternata</i> ALTEAL				Carrot DAUCA, Tomato LYPES	
<i>Ramularia</i> sp. RAMUSP, <i>Marssonina</i> sp MARSSP., <i>Alternaria</i> sp. ALTESP,					Tomato LYPES
<i>Thanatephorus cucumeris</i> RHIZSO, <i>Rhizoctonia</i> sp. RHIZSP and <i>R. fragariae</i> RHIZFR	Black root rot	Strawberry FRASS		Lettuce LACSA and other Leafy vegetables, Raddish RAPSR	Tomato LYPES

<i>Phytophthora fragariae</i> PHYTFR, <i>Phytophthora cactorum</i> PHYTCC	Phytophthora disease	Strawberry FRASS		Host crops infected by <i>Phytophthora cinnamomi</i> PHYTCN	Herbs Raspberry RUBID
<i>Leveillula taurica</i> LEVETA <i>Podosphaera aphanis</i> PODOAP <i>Sphaerotheca</i> sp. SPHRSP	Powdery mildew	Strawberry FRASS	Strawberry FRASS indoor	<i>Sphaerotheca morsuvae</i> in Gooseberry*, ornamentals Fruiting vegetables of <i>Solanaceae</i>	Red currant and White currant RIBRU, Blackcurrant RIBNI, Blackberry RUBFR, Raspberry RUBID, Grape VITSS
The following extrapolation possibilities are proposed to be addressed in tables covering generic pests					
<i>Botryotinia fuckeliana</i> BOTRCI (outdoor)	Grey mould	Strawberry FRASS	Strawberry FRASS		Peach* PRNPS, Plum* PRNDO, Cherry*, Currants*, Berries* (goose, blue, black, rasp and logan) Grapes* VITVI Herbs, Tomato LYPES, Fig FIUSS
<i>Verticillium</i> sp. VERTSP	Verticillium disease	Strawberry FRASS		Ornamentals	Ornamentals Tomato LYPES, Peas PIBSS
<i>Xanthomonas fragariae</i> XANTFR	Bacterium disease	Strawberry FRASS			