

GENERIC EXTRAPOLATION TABLES for EFFECTIVENESS of FUNGICIDES

► DAMPING-OFF, SOIL AND AIRBORN FUNGAL DISEASES

INTRODUCTION

The table provides detailed lists of acceptable extrapolations, 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 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). 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.

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Table 1: Extrapolation table for damping-off effects

| Diseases | | Crops | |
|---|----------------------|---|---|
| 1 Pest species | 2 Pest group name | 3 Indicator crops <i>Data from any other relevant crop, if available, can support (reduced data) the indicator crop</i> | 4 Extrapolation to other crops or crop groups |
| <i>Pythium</i> sp. PYTHSP <i>Oomycetes</i> 1OOMYC | Damping off | Lettuce LACSA or Vegetable brassica or Cucumber CUMSA or Melon CUMME or Spinach SPQOL or Beet BEASS or Tomato LYPES | All crops where damping off caused by Oomycetes appear |
| <i>Aphanomyces</i> sp. APHASP | | Pea PIBSX or Sugar beet BEAVA | Other leguminous crops Other beet crops (<i>Beta</i> sp. BEASS), Chenopodioideae 1CHES |
| <i>Alternaria</i> sp. ALTESP | | Chinese cabbage BRSPK or Tomato LYPES or Pepper CPSAN or Cucurbitaceae 1CUCF | All crops where alternaria damping- off appear |
| <i>Fusarium</i> sp. FUSASP | | Tomato LYPES or Cucurbitaceae 1CUCF (both grown in the soil) | All crops where Fusarium damping off appear |
| <i>Thanatephorus cucumeris</i> (= <i>Rhizoctonia solani</i>) RHIZSO | | Potato SOLTU (AG3, AG2-1), Lettuce LACSA (AG4), Cucurbitaceae 1CUCF (in soil) (AG4 (AG5)), Vegetable brassica (AG2-1, AG4) Beets BEAVD (AG2-2, AG4, AG1, AG3, AG5) Fabaceae 1LEGF (AG4, AG2-2) Strawberry FRASS | All crops where damping off caused by the same AG-groups appear |

| | | | |
|---|--|---|--|
| <i>Sclerotinia</i> sp. SCLESP or <i>Sclerotium rolfsii</i> SCLORO | | Lettuce LACSA or Tomato LYPES or Pepper CPSAN or <i>Phaseolus</i> sp. PHSSS | All crops where damping off appear |
| <i>Botryotinia fuckeliana</i> BOTRCI | | Fabaceae 1LEGF or Lettuce LACSA or Tomato LYPES | All crops where damping off appear. Not covering post-harvest effects. |

Table 2: Extrapolation table for other crop-effects other than damping-off

| Diseases | | Crops | |
|--|-----------------------|---|--|
| 1 Pest species | 2 Pest group name | 3 Indicator crops <i>Data from any other relevant crop, if available, can support (reduced data) the indicator crop</i> | 4 Extrapolation to other crops or crop groups |
| <i>Alternaria</i> sp. ALTESP | Leaf spots | Chinese cabbage BRSPK or Carrot DAUCA or Potato SOLTU | All crops where alternaria appear |
| | Fruit spot | Tomato LYPES | All crops where alternaria appear |
| <i>Fusarium</i> sp. FUSASP | Root rot and wilt | Any relevant crop | Any crop within the same crop botanical family |
| <i>Pythium</i> sp. PYTHSP | Root rot | Any relevant crop | Any crop within the same crop botanical family |
| <i>Phytophthora</i> sp. PHYTSP (except <i>P. infestans</i>) | Downy mildew | Potato SOLTU or Tomato LYPES or cucurbitaceae (depending on <i>P.</i> species) | Any other solanaceae or cucurbitaceae or to other crops with reduced data (depending on <i>P.</i> species) |
| <i>Phytophthora cinnamomi</i> PHYTCN | Phytophthora root rot | <i>Chamaecyparis</i> sp. CHCSS | Any relevant crop |

| | | | |
|--|--------------------------------|---|--|
| <i>Phytophthora cactorum</i> , PHYTCC | | Strawberry FRASS | |
| <i>Phytophthora ramorum</i> PHYTRA | | <i>Rhododendron</i> sp. RHOSS or <i>Viburnum</i> sp. VIBSS or <i>Fagus</i> FAUSS or <i>Quercus</i> sp. QUSS | |
| <i>Thanatephorus cucumeris</i> (= <i>Rhizoctonia solani</i>) RHIZSO | Root rot | Potato SOLTU (AG3, AG2-1) or Lettuce LACSA (AG4) or Cucurbitaceae 1CUCF (AG4 (AG5)) or Vegetable brassicas (AG2-1, AG4) or Beets BEAVD (AG2-2, AG4, AG1, AG3, AG5) or Fabaceae 1LEGF (AG4, AG2-2) or Strawberry FRASS | Any crop with root rot caused by the same AG-group |
| <i>Verticillium</i> sp. VERTSP | Verticillium wilt | Potato SOLTU or Tomato LYPES or Cucumber CUMSA or Melon CUMME | All other relevant crops where Verticillium wilt appears |
| <i>Sclerotinia sclerotiorum</i> SCLESC, <i>Sclerotinia subarctica</i> SCLESU, <i>Sclerotinia minor</i> SCLEMI | White mould Watery soft rot | Lettuce LACSA or <i>Fabaceae</i> 1LEGF or Oilseed rape or Sunflower or Carrots DAUCA or any other relevant crop | All relevant crops where these diseases appear ¹ |
| <i>Botryotinia fuckeliana</i> BOTRCI | Grey mould | Strawberry FRASS or <i>Phaseolus</i> sp. PHSSS or Grapes VITVI or any other relevant crop | |

¹ Data packages proposed for extrapolation should take into consideration the affected plant part, the crop groups and the modes of application of the products. The proposed extrapolation does not cover post-harvest applications. With a full data package from outdoor conditions, only a reduced data package from indoor conditions is needed.