

EXTRAPOLATION TABLE for EFFECTIVENESS of HERBICIDES ► WEEDS IN VEGETABLE BRASSICAS

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- *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 should be generated on all listed species. Extrapolation from one weed species to other weed species is generally not possible, because of the differences in the sensitivity of weed species to a herbicide. Therefore, columns 1 and 2 remain blank.

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 general it does not matter for the extrapolation which crop is taken in order to test the effect, as long as the application moment, cultivation time, soil coverage by crop, weeds etc. between the crops are comparable. For soil herbicides the soil type is also an important factor.

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.

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EXTRAPOLATION TABLE for EFFECTIVENESS of HERBICIDES

► WEEDS IN VEGETABLE BRASSICAS

Leafy brassicas: BRSOA kale *Brassica oleracea* var. *acephala* including collards and curly kale *Brassica oleracea* var. *sabellica* BRSOC; BRSPK Peking cabbage *Brassica pekinensis*; BRSCH *B. chinensis* [synonyms: *B. rapa* subsp. *chinensis*; *B. chinensis* var. *parachinensis*; *B. parachinensis*]; BRSNO Mitzuna *Brassica rapa* subsp. *nipposinica*; BRSPE Komatsuna *Brassica perviridis*; SINSP mustard *Sinapis* sp. (red, white brown black); DIPER Rockets *Diplotaxis erucoides* and ERUVE *Eruca vesicaria* subsp. *sativa*.

Head brassicas: (Head) Cabbage (includes red BRSOR *Brassica oleracea* var. *capitata* f. *rubra* and white *Brassica oleracea* var. *capitata* f. *alba* BRSOL); BRSON *Brassica oleracea* var. *capitata* f. *conica*; BRSOF Brussels sprouts *B. oleracea* var. *gemmifera*; BRSOS Savoy cabbage *B. oleracea* var. *sabauda*.

Flowerhead brassicas: (Flowering brassicas); BRSOB Cauliflower *B. oleracea* var. *botrytis* subvar. *cultiflora*, BRSOK Broccoli, Calabrese, cima di rapa *B. oleracea* var. *italic*; BRSAG Chinese kale (Chinese broccoli) *Brassica alboglabra*.

Root / Stem brassicas and radish crops: BRUNA Swedes *B. napus* var. *napobrassica*, BRSRR Turnips *B. rapa*, RAPSS Radishes *Raphanus* spp. (including red, white, Black Spanish radish); RAPS R Small radish *Raphanus sativus*; RAPS N Garden radish *Raphanus sativus* var. *niger*; ARWLA Horseradish *Armoracia lapathifolia*; BRSOG Kohlrabi, *B. oleracea* var. *gongylodes*.

Weed		Crop: Vegetable Brassicas		Crop: outside Vegetable Brassicas	
1	2	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*)
		Cauliflower BRSOB or cabbage BRSOL	Leafy and flower head and head and root brassicas	Other similar growing crops * (see 4.2 of EPPO Standard PP 1/257)	Other similar growing crops *