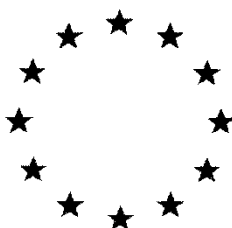


European Commission



**Draft Renewal Assessment Report prepared according to the Commission
Regulation (EU) N° 1107/2009**

Ethofumesate

Volume 3 – B.3 (PPP) – Ethofol 500 SC

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Co-Rapporteur Member State: Denmark

Version History

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B.3. DATA ON APPLICATION AND EFFICACY

B.3.1. FIELD OF USE ENVISAGED

Agriculture

B.3.2. EFFECTS ON HARMFUL ORGANISMS

For control of annual weeds. The mode of action is related to inhibition of mitosis plus reduced photosynthesis and respiration. It acts on leaves and via the soil. In addition, Ethofol 500 SC reduces the wax layer of weeds by inhibiting the fatty acid synthesis and thus improves the drug intake.

B.3.3. DETAILS OF INTENDED USE

Crop and/or situation (a)	Member State	Product Name	F G I (b)	Pests or group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days) (l)	Remarks (m)
					Type (d-f)	Conc of a.i. g/kg (i)	Method kind (f-h)	Growth stage and season (j)	Number min max (k)	Interval between applications (min)	Kg a.i./hl min max (g/hl)	Water l/ha min max	kg a.i./ha max (g/ha)		
Sugar and fodder beet	Northern, central, southern EU	Ethofol 500 SC	F	Annual weeds	SC	500	Spray	Pre-emergence	1	-		300-400	1		
Sugar and fodder beet	Northern, central, southern EU	Ethofol 500 SC	F	Annual weeds	SC	500	Spray	Post-emergence until BBCH 18	6*	5		200-300	1		

*Splitting application with a maximum total rate of 1kg a.s./ha per season. The maximum application rate per treatment is 0.33 kg a.s./ha. The critical GAP therefore is 3 applications of 0.33 kg a.s./ha. More applications (max. 6) at a lower application rate are possible, but they do not represent the critical GAP.

- * For uses where the column „Remarks“ in marked in grey further consideration is necessary. Uses should be crossed out when the notifier no longer supports this use(s).
- (a) For crops, the EU and Codex classification (both) should be taken into account ; where relevant, the use situation should be described (e.g. fumigation of a structure)
- (b) Outdoor or field use (F), greenhouse application (G) or indoor application (I)
- (c) e.g. biting and suckling insects, soil born insects, foliar fungi, weeds
- (d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
- (e) GCPF Codes – GIFAP Technical Monograph N° 2, 1989
- (f) All abbreviations used must be explained
- (g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
- (h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant – type of equipment used must be indicated
- (i) g/kg or g/L. Normally the rate should be given for the active substance (according to ISO) and not for the variant in order to compare the rate for same active substances used in different variants (e.g. fluoroxypry). **In certain cases, where only one variant synthesised, it is more appropriate to give the rate for the variant (e.g. benthialdicarb-isopropyl).**
- (j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
- (k) Indicate the minimum and maximum number of application possible under practical conditions of use
- (l) The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5 g/ha instead of 0.0125 kg/ha)
- (m) PHI - minimum pre-harvest interval

B.3.4. APPLICATION RATE AND CONCENTRATION OF THE ACTIVE SUBSTANCE

Ethofol 500 SC is applied either with one application of 2 L/ha (1 kg a.s./ha) in pre-emergence or in a splitting application in post-emergence with a maximum total rate of 2 L/ha (1 kg a.s./ha). The maximum single post-emergence application rate is 0.66 L/ha (0.33 kg a.s./ha).

B.3.5. METHOD OF APPLICATION

Spray application in 300-400 L/ha water for the pre-emergence application or 200-300 L/ha water for the post-emergence application.

B.3.6. NUMBER AND TIMING OF APPLICATIONS AND DURATION OF PROTECTION

Maximum number of applications and their timings:

Application once pre-emergence or up to 6 times every 5 days post-emergence.

Growth stages of crops or plants to be protected:

Application once pre-emergence or up to 6 times post-emergence until BBCH 18. Duration of protection should then last for the whole season (see below).

Development stages of the harmful organisms concerned:

Best control of weeds is obtained pre-emergence or at cotyledon to two-leaf growth stages of the weeds.

Duration of protection afforded by each application:

Applications are mainly directed against the newly emerged weeds, although Ethofol 500 SC also has a residual effect.

Duration of protection afforded by the maximum number of applications:

After the maximum number of applications, crop plants should already have reached a sufficient growth and soil coverage, so that they can compete with any later emerging weeds for the rest of the crop season.

B.3.7. NECESSARY WAITING PERIODS OR OTHER PRECAUTIONS TO AVOID PHYTOTOXIC EFFECTS ON SUCCEEDING CROPS

Minimum waiting periods or other precautions between last application and sowing or planting succeeding crops:

No waiting period is required after harvest of treated crops. The soil should be ploughed before sowing succeeding crops after crop failure.

B.3.8. PROPOSED INSTRUCTIONS FOR USE

Please refer to the information on the label and leaflet.

B.3.9. EFFECTIVENESS

Ethofumesate is used as a herbicide in sugar and fodder beets. Application can be done either as a single pre-emergence application or as a series of post-emergence applications. Ethofumesate is effective against annual dicotyledonous weeds when applied pre- or post-emergence in the form of the lead formulation Ethofol 500 SC (Ethofumesate 500 g/l SC). Efficacy of Ethofol 500 SC was found to be similar to the efficacy of the reference products that were used in field trials. The effectiveness of ethofumesate (Ethofol 500 SC) has been demonstrated over different EPPO zones.

B.3.10. INFORMATION ON THE DEVELOPMENT OF RESISTANCE

There is no evidence of the development of resistance to Ethofumesate by grass weeds or broad-leaved weeds in over 20 years of use. To avoid the development of resistance repeated use of high rates is not recommended and the implementation of low-dose sequential applications, usually in co-formulations or tank-mixtures with other herbicides has allowed the rates of use to be reduced progressively over the years. Since the active substance is generally used in mixtures and/or sequences with other herbicides in any one season, and due to crop rotational practices, it would not usually be re-applied on an annual basis to the same field.

B.3.11. ADVERSE EFFECTS ON TREATED CROPS

On the basis of the available information, ethofumesate and the lead formulation Ethofol 500 SC are not expected to produce significant adverse effects on the crop when the recommended use instructions are followed. In those cases when negative effects were observed during field trials, then the tested cultivars of sugar beet showed only minor, transient symptoms of phytotoxicity when treated with this herbicide. These transient effects were similar to the transient phytotoxic effects of the used reference products and they had no adverse effect on sugar beet yield or the sugar content of the beets. The crop safety of ethofumesate (Ethofol 500 SC) has been demonstrated over different EPPO zones.

B.3.12. OBSERVATIONS ON OTHER UNDESIRABLE OR UNINTENDED SIDE-EFFECTS

On the basis of the available information, ethofumesate and the lead formulation Ethofol 500 SC are not expected to produce significant adverse environmental effects when the recommended use instructions are followed. The performed efficacy and selectivity trials did not report negative side effects on other organisms that were present in or close to the treated plots.

B.3.13. REFERENCES RELIED ON

Data Point	Author(s)	Year	Title Compagny Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Data protection claimed Y/N	Justification if data protection is claimed	Owner	Previous evaluation
-	-	-	-	-	-	-	-	-