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(54) Title: COMBINATIONS OF HERBICIDAL AROMATIC CARBOXYLIC ACIDS AND SAFENERS

(57) Abstract: The invention relates to a herbicide-safener combination, which comprises: (A) one or more herbicidal auxin type of aromatic carboxylic acids or salts thereof, for example dicamba, chloramben or 2,3,6-trichlorobenzoic acid (2,3,6-TBA), and (B) one or more safeners. The invention is also directed to the respective method for protecting crops, the method for weed control using the combination and the use of compounds (B) for safening compounds (A).



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 02 060255 A (AVENTIS CROPS SCIENCE GMBH) 8 August 2002 (2002-08-08) page 1, line 7 - line 12 page 3, line 8,9,12-14 page 6, line 31 - line 34 page 14, line 29 - line 31 claims 1,5-9; tables 1,4 ---	1-6,8-13
X	EP 0 795 269 A (NOVARTIS AG) 17 September 1997 (1997-09-17) *the whole document* --- -/--	1-6,8-13



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EP 0 480 902 A (MONSANTO COMPAGNY) 15 April 1992 (1992-04-15) page 2, line 3 - line 5 page 12, line 32; example III; tables I-IIIV page 29, line 36-38; example 74; table V page 47, line 49 -page 48, line 17; table VI page 51, line 41 - line 52; table VII page 57, line 23 - line 30; table IX page 62, line 15 - line 24; table XI claims 1,12,25,26</p>	1-6,8-13
X	<p>OKII M., WATANABE K., KONNAI M., TAKEMATSU T.: "Studies on the Antidote, Octamethylenediamine (OM), as a foliar application type. Effect of OM upon the auxin type herbicides, especially, anti-curvature effect on soybean treated with chloramben." TOKYO RES. LAB., vol. 24, no. 3, 1979, pages 194-198, XP001118547 *abstract* table 1</p>	1-6, 8-11,13
X	<p>WO 98 47356 A (NOVARTIS AG) 29 October 1998 (1998-10-29) page 1, line 2 - line 6 page 1, paragraph 2 table 1 example B1</p>	1-5,8-13
X	<p>KNERR L.D., HOPEN H.J.: "Naptalam as a safener Against Chloramben in Cucumber (Cucumis sativus)" WEED TECHNOLOGY, vol. 3, no. 3, - 1989 pages 445-449, XP001117731 *Abstract* page 447, column 2, paragraph 3; tables 1-4</p>	1,2,8-13

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/05469

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02060255	A	08-08-2002	CA 2435761 A1 WO 02060255 A2	08-08-2002 08-08-2002
EP 0795269	A	17-09-1997	AT 245899 T AU 1624997 A BR 9701280 A CA 2199651 A1 CZ 9700746 A3 DE 69723750 D1 EA 970022 A1 EP 0795269 A1 HU 9700567 A1 PL 318875 A1 SK 31997 A3 TR 9700187 A2 US 6090750 A ZA 9702201 A	15-08-2003 18-09-1997 10-11-1998 13-09-1997 17-09-1997 04-09-2003 30-09-1997 17-09-1997 29-06-1998 15-09-1997 08-10-1997 21-10-1997 18-07-2000 14-09-1998
EP 0480902	A	15-04-1992	US 5201933 A CN 1061322 A EP 0480902 A1 IE 913577 A1 PT 99206 A ZA 9108135 A	13-04-1993 27-05-1992 15-04-1992 22-04-1992 30-09-1992 13-04-1993
WO 9847356	A	29-10-1998	AU 7527898 A WO 9847356 A2	13-11-1998 29-10-1998