



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : A01N 37/02, 37/06, 37/12 A01N 37/18, 61/00, 63/00 A01N 63/04	A3	(11) International Publication Number: WO 92/19104 (43) International Publication Date: 12 November 1992 (12.11.92)
(21) International Application Number: PCT/US92/03646 (22) International Filing Date: 1 May 1992 (01.05.92) (30) Priority data: 694,193 1 May 1991 (01.05.91) US 871,511 23 April 1992 (23.04.92) US (71) Applicant: MYCOGEN CORPORATION [US/US]; 5451 Oberlin Drive, San Diego, CA 92121 (US). (72) Inventors: SAVAGE, Steven, D. ; 1732 Redwing Street, San Marcos, CA 92069 (US). EVANS, Steven, L. ; 11578 Windcrest Lane #1813, San Diego, CA 92128 (US). HAYGOOD, Robert, A. ; 11309 Meadow Flower, San Diego, CA 92127 (US). ZORNER, Paul, S. ; 2939 Segovia Way, Carlsbad, CA 92009 (US).		(74) Agents: SALIWANCHIK, David, R. et al.; Saliwanchik & Saliwanchik, 2421 N.W. 41st Street, Suite A-1, Gainesville, FL 32606 (US). (81) Designated States: AT (European patent), AU, BE (European patent), BR, CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, LU (European patent), MC (European patent), NL (European patent), SE (European patent). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 4 March 1993 (04.03.93)
(54) Title: FATTY ACID BASED COMPOSITIONS FOR THE CONTROL OF ESTABLISHED PLANT INFECTIONS (57) Abstract The invention described here concerns the unique utility of fatty acids and their derivatives to eradicate existing fungal and bacterial infections in plants. Also, described herein are combination treatments whereby fatty acids are used to enhance or augment the activity of fungicides, bactericides, and biological control agents.		

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 92/03646

I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all)*		
According to International Patent Classification (IPC) or to both National Classification and IPC		
Int. Cl. 5	A 01 N 37/02	A 01 N 37/06
A 01 N 37/18	A 01 N 61/00	A 01 N 63/00
		A 01 N 37/12
		A 01 N 63/04
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int. Cl. 5	A 01 N	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹		
Category ¹⁰	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	US,A,3931413 (E.L. FRICK et al.) 6 January 1976, see column 1, line 66 - column 2, line 40; column 3, lines 15-68 ---	1-3,6,7 ,12-16
X	US,A,3931412 (D.L. KENSLER et al.) 6 January 1976, see column 1, lines 33-46; column 3, lines 13-32; column 4, line 66 - column 5, line 3 ---	1,10,11
X	FR,A,2596617 (INSTITUT FRANCAIS DE RECHERCHE SCIENTIFIQUE) 9 October 1987, see page 2, lines 20-26; page 3, lines 3-8 --- -/-	1-3,6,7 ,12,14, 15
¹⁰ Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
11-09-1992	27. 01 93	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	D. DECORTE	

III. DOCUMENTS CONSIDERED TO BE RELEVANT

(CONTINUED FROM THE SECOND SHEET)

Category	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X	GB,A,1219077 (H. GROH) 13 January 1971, see page 2, lines 39-50; page 3, lines 34-39 ---	1,2,12-16
X	GB,A, 907842 (ROHM & HAAS) 10 October 1962, see claims 1,10; page 4, lines 25-45 ---	1,2,12-16
X	DE,A,1567187 (TENNESSEE) 25 June 1970, see page 1, paragraph 1; page 4, paragraph 4 ---	1,2,6,7,12-16
X	CH,A, 257642 (R. DUPREZ et al.) 16 April 1949, see claim 1; page 1, lines 37-39 ---	1,2,6,7,12-16
X	Canadian Journal of Botany, vol. 59, no. 4, April 1981; G.S. Puritch et al.: "Effect of fatty acid salts on the growth of Botrytis cinerea", pages 491-494, see the whole article ---	1-3,6-9,12-16
A	JAACS, vol. 61, no. 2, February 1984; J.J. Kabara: "Antimicrobial agents derived from fatty acids", pages 397-403 (cited in the application) ---	
A	US,A,4826678 (M.D. GAUDET et al.) 2 May 1989, see abstract ---	17-32
A	DE,A,3309765 (BAYER) 20 September 1984, see claim 1 -----	10,11

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 92/03646

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims: 1-32; A method for the control of established fungal or bacterial plant disease.
 2. Claims: 33-60; A method for manipulating the microbial population of a wood, plant, or harvested produce surface.
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1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
 2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
 3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
 4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-32.

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

US 9203646
SA 60289

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 20/01/93. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 3931413	06-01-76	GB-A- 1438945	09-06-76
		AU-B- 474324	22-07-76
		AU-A- 5697573	19-12-74
		BE-A- 801009	17-12-73
		BE-A- 801010	17-12-73
		CH-A- 579870	30-09-76
		CH-A- 579871	30-09-76
		DE-A- 2330596	10-01-74
		DE-A- 2330597	03-01-74
		FR-A,B 2188954	25-01-74
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		NL-A- 7308387	18-12-73
		NL-A- 7308388	18-12-73
		US-A- 3833736	03-09-74
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		US-A- 4123552	31-10-78
		CA-A- 1012885	28-06-77
		GB-A- 1382010	29-01-75
FR-A- 2596617	09-10-87	None	
GB-A- 1219077	13-01-71	None	
GB-A- 907842		BE-A- 575264	
		CH-A- 387376	
		DE-B- 1177407	
		FR-A- 1222849	
		NL-C- 124978	
		NL-A- 235562	
		OA-A- 138	15-03-66
		US-A- 2971880	
DE-A- 1567187	25-06-70	None	
CH-A- 257642		None	
US-A- 4826678	02-05-89	None	

US 9203646
SA 60289

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DE-A- 3309765	20-09-84	None
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