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(54) Title: HIGH TRYPTOPHAN SOYBEAN MEAL

(57) Abstract: The present invention is directed to a soybean meal with high tryptophan content and its method of manufacture. The high tryptophan content soybean meal is to be used as an ingredient in animal feeding operations. Also provided are products from the further processing of the soybean meal.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/26269

A. CLASSIFICATION OF SUBJECT MATTER IPC(8): C12N 15/82; A01H 15/00; C11B 1/10 (2007.01) USPC: 554/9; 800/278, 312 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) US 6,849,288; US 426/634 "tryptophan", 635, 630, 805 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched www.Answers.com, NIH.org, Thomson Dialog (Global Patents, MEDLINE), Google Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Thomson Dialog, Global Patents (France, US, Europe, WIPO/PCT) Search Terms: soybean meal, processing, protein, tryptophan, anthranilate synthase, subunit, domain, monomeric, maize, c28, free tryptophan, protein, bound, aquaculture feed, chorismate mutase, tryptophanase, tryptophan oxidase, amino acid																												
C. DOCUMENTS CONSIDERED TO BE RELEVANT																												
<table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X --- Y</td> <td>US 6,849,288 B2 (Oliveira et al.) 01 February 2005 (01.02.2005) (Col. 1, lines 1-20, lines 12-16, Col. 2, lines 11-31, Col. 3, lines 1-3, Col. 4, lines 18-19, Col. 5, lines 34-49, Col. 9, lines 14-21, Col. 10, lines 1-22, Col. 11, lines 1-37, Col. 12, lines 41-67)</td> <td>1-4, 6, 26-29, 33 ----- 5, 7-25, 30-32, 34</td> </tr> <tr> <td>Y</td> <td>US 5,413,803 A (Chung) 09 May 1995 (09.05.1995) (Col. 6, lines 51-67)</td> <td>5</td> </tr> <tr> <td>Y</td> <td>US 6,437,217 B1 (McElroy et al.) 20 August 2002 (20.08.2002) (Col. 2, lines 46-63, Col. 12, lines 32-41)</td> <td>7, 25</td> </tr> <tr> <td>Y</td> <td>US 4,581,847 A (Hibberd et al.) 15 April 1986 (15.04.1986) (Col. 4, lines 3-14, 41-44, Col. 5, lines 18-26, 28-37, Col. 6, lines 34-31, Col. 7, lines 25-26, 42-65, Col. 10, lines 21-41, 21-53, 43-53, Col. 15, lines 29-35)</td> <td>8, 12-25, 30-32, 34</td> </tr> <tr> <td>Y</td> <td>US 6,127,600 A (Beach et al.) 03 October 2000 (03.10.2000) (Col. 2, lines 44-63, Col. 9, lines 1-7)</td> <td>9-11</td> </tr> <tr> <td>Y</td> <td>US 6,489,100 B1 (Liao) 03 December 2002 (03.12.2002) (Col. 19, lines 21-41)</td> <td>23</td> </tr> <tr> <td>Y</td> <td>WALKER, M.S. Organization of the functional domains of anthranilate synthase from <i>Neuspora crassa</i>, J. Biol. Chem., December 1986, Vol. 261, No. 34, Abstract pages 16073-16077</td> <td>31 and 32</td> </tr> <tr> <td>Y</td> <td>SHIRATSUCHI A. Characterization of <i>Bacillus Caldotenax</i> Anthranilate Synthase I Produced in <i>Escherichia Coli</i> and Identification of its Essential Arginine Residue by Site-Directed Mutagenesis, J. Biochem., 1992, Vol. 112, No.5, pages 714-718</td> <td>31</td> </tr> </tbody> </table>	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X --- Y	US 6,849,288 B2 (Oliveira et al.) 01 February 2005 (01.02.2005) (Col. 1, lines 1-20, lines 12-16, Col. 2, lines 11-31, Col. 3, lines 1-3, Col. 4, lines 18-19, Col. 5, lines 34-49, Col. 9, lines 14-21, Col. 10, lines 1-22, Col. 11, lines 1-37, Col. 12, lines 41-67)	1-4, 6, 26-29, 33 ----- 5, 7-25, 30-32, 34	Y	US 5,413,803 A (Chung) 09 May 1995 (09.05.1995) (Col. 6, lines 51-67)	5	Y	US 6,437,217 B1 (McElroy et al.) 20 August 2002 (20.08.2002) (Col. 2, lines 46-63, Col. 12, lines 32-41)	7, 25	Y	US 4,581,847 A (Hibberd et al.) 15 April 1986 (15.04.1986) (Col. 4, lines 3-14, 41-44, Col. 5, lines 18-26, 28-37, Col. 6, lines 34-31, Col. 7, lines 25-26, 42-65, Col. 10, lines 21-41, 21-53, 43-53, Col. 15, lines 29-35)	8, 12-25, 30-32, 34	Y	US 6,127,600 A (Beach et al.) 03 October 2000 (03.10.2000) (Col. 2, lines 44-63, Col. 9, lines 1-7)	9-11	Y	US 6,489,100 B1 (Liao) 03 December 2002 (03.12.2002) (Col. 19, lines 21-41)	23	Y	WALKER, M.S. Organization of the functional domains of anthranilate synthase from <i>Neuspora crassa</i> , J. Biol. Chem., December 1986, Vol. 261, No. 34, Abstract pages 16073-16077	31 and 32	Y	SHIRATSUCHI A. Characterization of <i>Bacillus Caldotenax</i> Anthranilate Synthase I Produced in <i>Escherichia Coli</i> and Identification of its Essential Arginine Residue by Site-Directed Mutagenesis, J. Biochem., 1992, Vol. 112, No.5, pages 714-718	31	<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>
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Date of the actual completion of the international search 8 January 2007 (08.01.2007)	Date of mailing of the international search report 03 APR 2007																											
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774																											

INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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Y	US 6,458,409 B1 (Trouille) 01 October 2002 (01.10.2002)	1-5
Y	US 5,145,700 A (Von Lempke) 08 September 1992 (08.09.1992)	1
Y	US 6,245,546 B1 (Hansen et al.) 12 June 2001 (12.06.2001)	1-5 and 7