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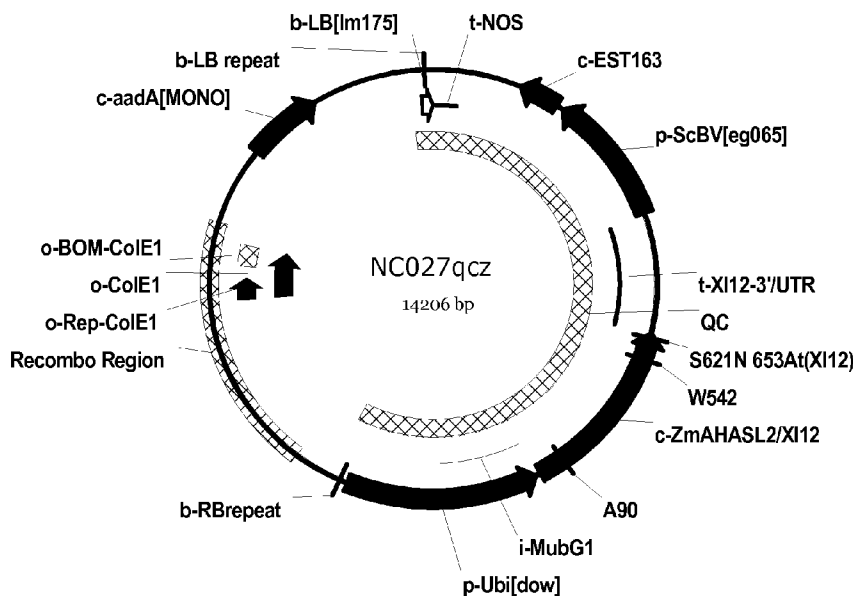
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[Continued on next page]

(54) Title: PLANT PRODUCTIVITY ENHANCEMENT BY COMBINING CHEMICAL AGENTS WITH TRANSGENIC MODIFICATIONS

Fig. 1



(57) Abstract: The present invention relates to the enhancement of plant productivity by combining chemical agents with transgenic modifications.

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. C12N15/82      A01N43/56      A01N47/02      A01N47/24		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) C12N A01N		
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) EPO-Internal, WPI Data, BIOSIS, EMBASE, Sequence Search, EMBL		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	RAKSZEGI M ET AL: "Technological quality of transgenic wheat expressing an increased amount of a HMW glutenin subunit" JOURNAL OF CEREAL SCIENCE, ACADEMIC PRESS LTD, XX, vol. 42, no. 1, 1 July 2005 (2005-07-01), pages 15-23, XP004896721 ISSN: 0733-5210 page 16, right-hand column ----- -/--	1-8,13, 16,20, 25,27
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* 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 when the document is taken alone *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	
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Bucka, Alexander	

## INTERNATIONAL SEARCH REPORT

International application No

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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	CATTANEO MANDA G ET AL: "Farm-scale evaluation of the impacts of transgenic cotton on biodiversity, pesticide use, and yield" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 103, no. 20, May 2006 (2006-05), pages 7571-7576, XP002493239 ISSN: 0027-8424 tables 1-3	1-7,9,13,16-20,26-28
X	US 2002/059658 A1 (WEI ZHONG-MIN [US] ET AL) 16 May 2002 (2002-05-16) ----- examples 1,2,8; table 1	1-4,13,16-20,25-28
X	COWGILL S E ET AL: "A sequential approach to risk assessment of transgenic plants expressing protease inhibitors: Effects on nontarget herbivorous insects." TRANSGENIC RESEARCH, vol. 12, no. 4, August 2003 (2003-08), pages 439-449, XP002493329 ISSN: 0962-8819 page 440, right-hand column page 442, left-hand column	1-6,13,26,27
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Y	HERMS S ET AL: "A strobilurin fungicide enhances the resistance of tobacco against Tobacco Mosaic Virus and Pseudomonas syringae pv tabaci" PLANT PHYSIOLOGY, AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS, ROCKVILLE, MD, US, vol. 130, 1 September 2002 (2002-09-01), pages 120-127, XP002241578 ISSN: 0032-0889 the whole document	1-28
Y	WO 96/33614 A (RHONE POULENC AGROCHIMIE [FR]) 31 October 1996 (1996-10-31) the whole document	1-28

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International application No  
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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.
A	WO 01/77311 A (BASF PLANT SCIENCE GMBH [DE]; DA COSTA SILVA OSWALDO [US]; BOHNERT HAN) 18 October 2001 (2001-10-18) sequences 1,17  -----	1-28

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2008/054924

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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 No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

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

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
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.:

1-28, all partially and as far as applicable

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-28, all partially and as far as applicable

A method for increasing plant health and/or controlling pests in plants with at least one transgenic modification related to yield increase as compared to a corresponding wild-type plant  
comprising treating the location where the plant with at least one transgenic modification is growing or is expected to grow and/or the transgenic plant with at least one transgenic modification or propagation material of the plant with at least one transgenic modification with an effective amount of a chemical composition comprising at least one active ingredient, wherein the transgenic modification consists of the modification of the expression of the nucleic acid encoding a protein shown in SEQ ID NO: 1.

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Inventions 2 to 273: claims 1-28, all partially and as far as applicable

A method for increasing plant health and/or controlling pests in plants with at least one transgenic modification related to yield increase as compared to a corresponding wild-type plant  
comprising treating the location where the plant with at least one transgenic modification is growing or is expected to grow and/or the transgenic plant with at least one transgenic modification or propagation material of the plant with at least one transgenic modification with an effective amount of a chemical composition comprising at least one active ingredient, wherein in each of the separate subjects the transgenic modification consists of the modification of the expression of the nucleic acid encoding a protein selected from the proteins shown in SEQ ID NO: 2 to 273.

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Information on patent family members

International application No

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International application No PCT/EP2008/054924
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