LIVING MODIFIED ORGANISM (LMO)

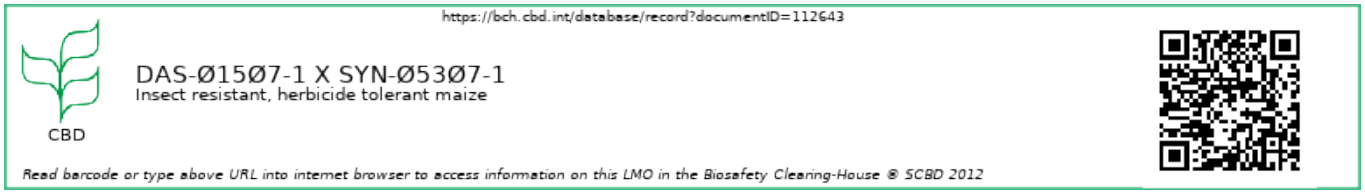
BCH-LMO-SCBD-112643-1

? Decisions on the LMO ? Risk Assessments

LAST UPDATED: 24 OCT 2017

Living Modified Organism identity

The image below identifies the LMO through its unique identifier, trade name and a link to this page of the BCH. Click on it to download a larger image on your computer. For help on how to use it go to the LMO quick-links page.



Name

Insect resistant, herbicide tolerant maize | EN

Transformation event

TC1507 x 5307

Unique identifier

DAS-Ø15Ø7-1 x SYN-Ø53Ø7-1

Developer(s)

- ORGANIZATION: SYNGENTA SEEDS GMBH | BCH-CON-SCBD-101875-3

ORGANIZATION

Syngenta Seeds GmbH
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Description

The stacked maize line TC1507 x 5307 was obtained through the traditional cross breading of each of the parental organisms to produce a maize that expresses each of cryIF, PAT, pmi | EN

and eCry3.1Ab genes. The expression of these genes are expected to confer resistance to Lepidoptera and Coleoptera, and tolerance to glufosinate herbicide.

Recipient Organism or Parental Organisms

The term “Recipient organism” refers to an organism (either already modified or non-modified) that was subjected to genetic modification, whereas “Parental organisms” refers to those that were involved in cross breeding or cell fusion.

BCH-ORGA-SCBD-246-6 ORGANISM | ZEA MAYS (MAIZE, CORN, MAIZE)

Crops

BCH-LMO-SCBD-14841-13 LIVING MODIFIED ORGANISM | DAS-Ø15Ø7-1 - HERCULEX™ I MAIZE

Resistance to diseases and pests (Insects, Lepidoptera (butterflies and moths)), Resistance to herbicides (Glufosinate)

BCH-LMO-SCBD-104791-4 LIVING MODIFIED ORGANISM | SYN-Ø53Ø7-1 - AGRISURE® DURACADE™ MAIZE

Syngenta Crop Protection AG | Resistance to diseases and pests (Insects, Coleoptera (beetles), Western corn rootworm (Diabrotica virgifera), Northern corn rootworm (Diabrotica barberi))

Characteristics of the modification process

Vector

PHI8999A and pSYN12274 EN

Techniques used for the modification

Cross breeding

Genetic elements construct

P-CMP-CYLCV 0.350 kb	CS-eCry3_1Ab-BACTU 0.000 kb	T-nos-RHIRD 0.250 kb
P-ubi1-MAIZE 1.990 kb	I-1_ubi1-MAIZE 0.000 kb	CS-pmi-ECOLX 1.180 kb	T-nos-RHIRD 0.250 kb
P-ubi1-MAIZE 1.980 kb	CS-cry1F-BACTU 1.820 kb	T-orf25-RHIRD 0.720 kb
P-35S-CaMV 0.550 kb	CS-pat-STRVR 0.550 kb	T-35S-CaMV 0.200 kb

Introduced or modified genetic element(s)

Some of these genetic elements may be present as fragments or truncated forms. Please see notes below, where applicable.

BCH-GENE-SCBD-104788-2 CESTRUM YELLOW LEAF CURLING VIRUS PROMOTER

Promoter

BCH-GENE-SCBD-104789-2 ECRY3.1AB

Protein coding sequence | Resistance to diseases and pests (Insects, Coleoptera (beetles), Western corn rootworm (Diabrotica virgifera), Northern corn rootworm (Diabrotica barberi))

BCH-GENE-SCBD-100269-8 NOPALINE SYNTHASE GENE TERMINATOR

Terminator

BCH-GENE-SCBD-100362-7 UBIQUITIN GENE PROMOTER | (MAIZE, CORN)

Promoter

BCH-GENE-SCBD-103627-5 UBIQUITIN INTRON 1 | (MAIZE, CORN)

Intron

BCH-GENE-SCBD-15003-7 PHOSPHOMANNOSE ISOMERASE GENE | (BACTERIA)

Protein coding sequence | Mannose tolerance,Selectable marker genes and reporter genes

BCH-GENE-SCBD-14987-8 CRY1F | BACILLUS THURINGIENSIS - BT, BACILLUS, BACTU

Protein coding sequence | Resistance to diseases and pests (Insects, Lepidoptera (butterflies and moths))

BCH-GENE-SCBD-100363-5 ORF25 POLYA TERMINATOR SEQUENCE

Terminator

BCH-GENE-SCBD-100287-7 CAMV 35S PROMOTER

Promoter

BCH-GENE-SCBD-15002-4 PHOSPHINOTHRICIN N-ACETYLTRANSFERASE GENE

Protein coding sequence | Resistance to herbicides (Glufosinate)

BCH-GENE-SCBD-100290-6 CAMV 35S TERMINATOR

Terminator

Notes regarding the genetic elements present in this LMO

DNA insert from TC1507 vector PHI8999A TC1507 modified with the insertion of the Cry1F geneto confer resistance to the European corn borer (Ostrinia nubilalis). A transformation cassette coding for phosphinothricin (PPT) herbicide tolerance, specifically glufosinate ammonium, was also inserted into the organism. **DNA insert from 5307 vector pSYN12274** Event 5307 corn plants contain the transgene ecry3.1Ab encoding a novel rootworm-control protein, eCry3.1Ab, and the transgene pmi encoding the enzyme phosphomannose isomerase (PMI). For additional information on this LMO, please refer to the records of the parental LMOs.	EN

LMO characteristics

Modified traits

Resistance to diseases and pests
- Insects
  - Coleoptera (beetles)
  - Lepidoptera (butterflies and moths)

Resistance to herbicides
- Glufosinate

Selectable marker genes and reporter genes

Common use(s) of the LMO

Food

Feed

Detection method(s)

External link(s)

? DAS-Ø15Ø7-1 - EU Reference Laboratory for GM Food and Feed (EURL-GMFF) *(English)*

? SYN-Ø53Ø7-1 - EU Reference Laboratory for GM Food and Feed (EURL-GMFF) *(English)*

Additional Information

Other relevant website addresses and/or attached documents

? DAS-Ø15Ø7-1 x SYN-Ø53Ø7-1 - ISAAA *(English)*

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Further Information

Questions about the Cartagena Protocol on Biosafety or the operation of the Biosafety Clearing-House may be directed to the Secretariat of the Convention on Biological Diversity.

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