LIVING MODIFIED ORGANISM (LMO)

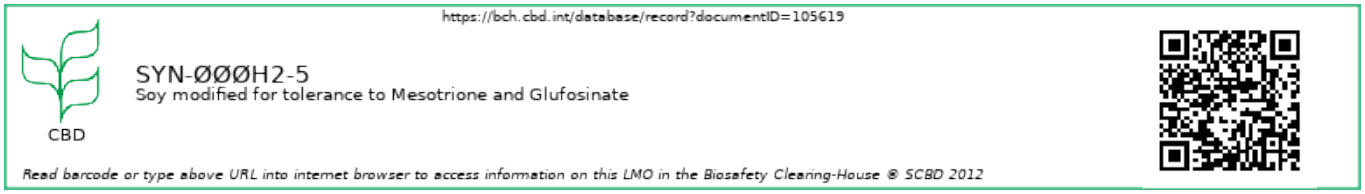
BCH-LMO-SCBD-105619-1

? Decisions on the LMO ? Risk Assessments

LAST UPDATED: 12 JUN 2014

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

Soy modified for tolerance to Mesotrione and Glufosinate | EN

Transformation event

SYHT0H2

Unique identifier

SYN-ØØØH2-5

Developer(s)

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

ORGANIZATION

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- ORGANIZATION: BAYER CROPSCIENCE LP | BCH-CON-SCBD-104792-1

ORGANIZATION

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Description

Soybean SYHT0H2, has been developed to be tolerant to two herbicides with different modes of action, namely glufosinate-ammonium and mesotrione.

Tolerance to glufosinate is achieved through expression of the enzyme phosphinothricin acetyltransferase (PAT). Tolerance to mesotrione is achieved through expression of the p-hydroxyphenylpyruvate dioxygenase (AvHPPD-03) protein .

EN

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-10453-6 ORGANISM | GLYCINE MAX (SOYBEAN, SOYA BEAN, SOYA, SOYBN) | Crops

Point of collection or acquisition of the recipient organism or parental organisms

Cultivar: Jack

EN

Characteristics of the modification process

Vector

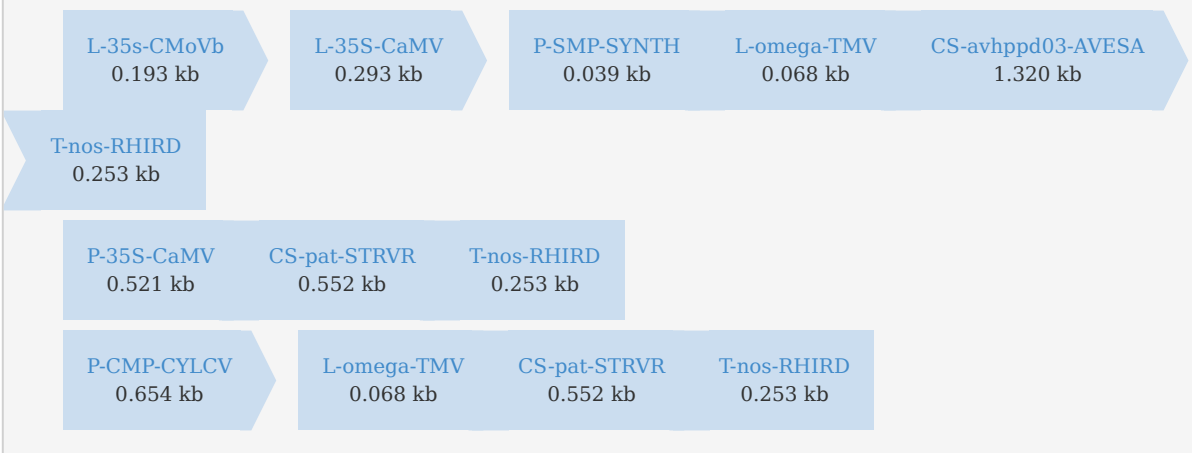
pSYN15954

EN

Techniques used for the modification

Agrobacterium-mediated DNA transfer

Genetic elements construct



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-105196-2 FMV 35S ENHANCER
Leader

BCH-GENE-SCBD-105197-2 CAMV 35S ENHANCER
Leader

BCH-GENE-SCBD-105606-1 SYNTHETIC MINIMAL PLANT PROMOTER
Promoter

BCH-GENE-SCBD-104820-3 OMEGA 5' UNTRANSLATED LEADER | (TMV)
Leader

BCH-GENE-SCBD-105608-1 AVHPPD-03 GENE | (OAT, AVESA)
Protein coding sequence | Resistance to herbicides

BCH-GENE-SCBD-100269-8 NOPALINE SYNTHASE GENE TERMINATOR
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-104788-2 CESTRUM YELLOW LEAF CURLING VIRUS PROMOTER
Promoter

Notes regarding the genetic elements present in this LMO

The enzyme phosphinothricin acetyltransferase in the two different expression cassettes are encoded by two similar pat genes pat-03-01 which is regulated by the 35s promoter and pat-03-02 which is regulated by the CMP promoter. Both coding sequences encode identical PAT proteins. The avhppd-03 was codon optimised for enhanced expression. Southern blot and sequencing analysis indicated that SYHT0H2 contains, at a single locus, a single copy of avhppd-03, four copies of the pat gene, one copy of the avhppd-03 promoter complex, two copies of the 35s promoter, two copies of the CMP promoter, two copies of the TMV enhancer and five copies of the nos terminator sequences	EN

LMO characteristics

Modified traits

Resistance to herbicides
Glufosinate

Other
Resistance to Mesotrione

Common use(s) of the LMO

Food
Feed

Additional Information

Other relevant website addresses and/or attached documents

? SYN-ØØØH2-5 - APHIS *(English)*

? SYN-ØØØH2-5 - FDA *(English)*

? SYN-ØØØH2-5 - ISAAA *(English)*

? SYN-ØØØH2-5 - OECD *(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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