

Biosafety Clearing-House (BCH)

LIVING MODIFIED ORGANISM (LMO)

BCH-LMO-SCBD-112356-1

[? Decisions on the LMO ? Risk Assessments](#)

LAST UPDATED: 17 AUG 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.



<https://bch.cbd.int/database/record?documentID=112356>

DAS-81419-2 X DAS-44406-6
Conkesta Enlist E3™ Soybean



Read barcode or type above URL into internet browser to access information on this LMO in the Biosafety Clearing-House © SCBD 2012

Name

Conkesta Enlist E3™ Soybean

EN

Transformation event

DAS-81419-2 x DAS-44406-6

Unique identifier

DAS-81419-2 x DAS-44406-6

Developer(s)

- **ORGANIZATION:** DOW AGROSCIENCES | [BCH-CON-SCBD-14939-1](#)

ORGANIZATION

Dow AgroSciences

Website: <http://www.dowagro.com/homepage/index.htm>

Description

The stacked soybean line Conkesta Enlist E3™ was created through the conventional cross-breeding of the LM cotton lines DAS-44406-6 and DAS-81419-2 to express aad-12, 2mepsps and pat genes to confer tolerance to the herbicides 2,4-dichlorophenoxyacetic acid (2,4-D), glyphosate and glufosinate respectively. The LM plant also expresses Cry1F and Cry1Ac each of which expresses insecticidal crystal proteins thus conferring resistance against lepidoptera.

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

[BCH-LMO-SCBD-105041-3](#) LIVING MODIFIED ORGANISM | DAS-44406-6 - ENLIST E3™ SOYBEAN |

Dow AgroSciences | Resistance to herbicides (Glufosinate, Glyphosate), Tolerance to 2,4-Dichlorophenoxyacetic acid

[BCH-LMO-SCBD-105046-2](#) LIVING MODIFIED ORGANISM | DAS-81419-2 - CONKESTA™ SOYBEAN |

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

Characteristics of the modification process

Vector

pDAB8264 and pDAB9582

EN

Techniques used for the modification

Cross breeding

Genetic elements construct

E-rb7_mar-TOBAC 1.170 kb	T-H4-ARAT ⁺ 0.660 kb	CS-epsps-M ⁺ 1.340 kb	TP- ⁺ 0.37	I-H3-AP ⁺ 0.000	P-h4a748-ARATH 1.430 kb
P-ubi10-ARATH 1.320 kb	CS-aad12-DELAC 0.880 kb	T-ORF23-RHIRD 0.460 kb			
P-XYZ-CsVMV 0.520 kb	CS-pat-STRVR 0.550 kb	T-ORF1-RHIRD 0.170 kb			
P-ubi10-ARATH 1.320 kb	CS-cry1F-BACTU 3.450 kb	T-ORF23-RHIRD 0.460 kb			
P-XYZ-CsVMV 0.520 kb	CS-cry1Ac-BACTU 3.470 kb	T-ORF23-RHIRD 0.480 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-104795-4](#) RB7 MATRIX ATTACHMENT REGION | (TOBACCO PLANT) |

Enhancer

[BCH-GENE-SCBD-104646-4](#) HISTONE H4 GENE 3' UTR | (THALE CRESS) |

Terminator

[BCH-GENE-SCBD-46333-8](#) 5-ENOLPYRUVYLSHIKIMATE-3-PHOSPHATE SYNTHASE | (MAIZE, CORN) |

Protein coding sequence | Resistance to herbicides (Glyphosate)

[BCH-GENE-SCBD-101419-4](#) OPTIMIZED TRANSIT PEPTIDE |

Transit signal

[BCH-GENE-SCBD-104648-2](#) HISTONE H3 GENE II INTRON 1 | (THALE CRESS) |

Intron

[BCH-GENE-SCBD-104647-3](#) HISTONE H4 GENE PROMOTER | (THALE CRESS) |

Promoter

[BCH-GENE-SCBD-104802-5](#) POLYUBIQUITIN10 GENE PROMOTER | (THALE CRESS) |

Promoter

[BCH-GENE-SCBD-104805-2](#) ARYLOXYALKANOATE DIOXYGENASE GENE |

Protein coding sequence | Resistance to herbicides

[BCH-GENE-SCBD-104806-3](#) ORF23 3' UNTRANSLATED REGION |

Terminator

[BCH-GENE-SCBD-101900-5](#) CSVMV PROMOTER |

Promoter

[BCH-GENE-SCBD-15002-4](#) PHOSPHINOTHRICIN N-ACETYLTRANSFERASE GENE |

Protein coding sequence | Resistance to herbicides (Glufosinate)

[BCH-GENE-SCBD-104807-2](#) ORF1 3' UNTRANSLATED REGION |

Terminator

[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-14986-6](#) CRY1AC | BACILLUS THURINGIENSIS - BT, BACILLUS, BACTU |

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

Notes regarding the genetic elements present in this LMO

DNA insert from DAS-44406-6 vector pDAB8264

DAS-44406-6 soybean was modified with the insertion of a gene encoding aryloxyalkanoate dioxygenase and phosphinothricin N-acetyltransferase to confer tolerance to the herbicides 2,4-dichlorophenoxyacetic acid (2,4-D) and glufosinate respectively. Further more a gene encoding a modified version of the EPSPS gene was inserted to confer tolerance to glyphosate.

DNA insert from DAS-81419-2 vector pDAB9582

Soy line DAS-81419-2 was transformed with the insertion of Cry1F and Cry1Ac to confer resistance to lepidopteran insects as well as the insertion of the pat gene which results in the synthesis of phosphinothricin N-acetyltransferase thus coffering tolerance to glufosinate herbicides.

For additional information on this LMO, please refer to the records of the parental LMOs

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LMO characteristics

Modified traits

Resistance to diseases and pests

Insects

Lepidoptera (butterflies and moths)

Resistance to herbicides

Glufosinate

Glyphosate
Other
Tolerance to 2,4-Dichlorophenoxyacetic acid

Common use(s) of the LMO

Food
Feed

Detection method(s)

External link(s)

- ? [DAS-444Ø6-6 - EU Reference Laboratory for GM Food and Feed \(EURL-GMFF\)](#) (*English*)
- ? [DAS-81419-2 - EU Reference Laboratory for GM Food and Feed \(EURL-GMFF\)](#) (*English*)

Additional Information

Other relevant website addresses and/or attached documents

- ? [DAS-81419-2 x DAS-444Ø6-6 - ISAAA](#) (*English*)

[BCH-LMO-SCBD-112356-1](#)

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.

Secretariat of the Convention on Biological Diversity

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