

## Biosafety Clearing-House (BCH)

BIOSAFETY VIRTUAL LIBRARY RESOURCES (VLR)

BCH-VLR-SCBD-103432-2

LAST UPDATED: 10 MAY 2012

### General Information

Title

Problem Formulation and Hypothesis Testing for Environmental Risk Assessments of Genetically Modified Crops.

EN

Type of resource

General library resource

Article

Journal

Magazine

Newspaper

Author name(s)

Alan Raybould

Email: alan.raybould@syngenta.com

Syngenta, Jealott's Hill International Research Centre,  
Bracknell, Berkshire RG42 6EY, UK

EN

Publisher

EDP Sciences

EN

Publication date

2006

EN

Source

Environmental Biosafety Research

EN

Rights

© ISBR, EDP Sciences, 2007

EN

### Access to the resource(s)

Link to the resource(s)

Problem Formulation and Hypothesis Testing for Environmental Risk Assessments of Genetically Modified Crops..pdf [ English ]

Problem Formulation and Hypothesis Testing for Environmental Risk Assessments of Genetically Modified Crops. [ English ]

## Information on the content of the resource

Summary, abstract or table of contents

Abstract:

Environmental risk assessments can provide high confidence of minimal risk by testing theories, “risk hypotheses”, that predict the likelihood of unacceptable harmful events. The creation of risk hypotheses and a plan to test them is called problem formulation. Effective problem formulation seeks to maximize the possibility of detecting effects that indicate potential risk; if such effects are not detected, minimal risk is indicated with high confidence. Two important implications are that artificial test conditions can increase confidence, whereas prescriptive data requirements can reduce confidence (increase uncertainty) if they constrain problem formulation. Poor problem formulation can increase environmental risk because it leads to the collection of superfluous data that may delay or prevent the introduction of environmentally beneficial products.

EN

## Keywords for facilitating searching for information in the clearing-houses

Biosafety Thematic Areas

Scientific and technical issues  
Risk assessment

Would you like to recommend this document as background material for the “Guidance on Risk Assessment of Living Modified Organisms”?

[https://bch.cbd.int/onlineconferences/ra\\_guidance\\_references.shtml](https://bch.cbd.int/onlineconferences/ra_guidance_references.shtml)

Yes

Author affiliation

Section(s) of the 'Guidance on Risk Assessment of Living Modified Organisms' this background material is relevant to

1. Roadmap for risk assessment of living modified organisms
  - 1.4. Planning phase of the risk assessment
    - 1.4.1. Establishing the context and scope

Does this resource address one or more specific LMOs?

No

Does this resource address one or more specific organisms?

No

Does this resource address one or more specific genetic elements?

No

### Additional Information

**Identifier (ISBN, ISSN, etc.)**

DOI: 10.1051/ebr:2007004

**Format**

7 page PDF

**Keywords and any other relevant information**

Keywords: risk assessment / problem formulation / scientific method / certainty / data requirements  
Citation: Environ. Biosafety Res. 5 (2006) 119-125

EN

[BCH-VLR-SCBD-103432-2](#)

## 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**

413 rue Saint-Jacques, suite  
800

Montreal, Québec, H2Y 1N9  
Canada

Fax: +1 514 288-6588

Email: [secretariat@cbd.int](mailto:secretariat@cbd.int)