

## DRIVING QUESTION



# Would you allow the growing of GM plants in your country?

## LOCAL WORKING GROUP MEMBERS

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## SCENARIO



not grow as much on European land. Soybeans and canola are very important products for economy and health as they are used for human consumption, and as a feed for animals. Canola is also used in industry as biofuel while soybeans are used for producing vitamins and antibiotics. There are strong opinions both for and against GMOs. You need to act soon. Your decision is very important.

- Examine data on the effect of GM plants on the environment, economy and health and conduct a [risk assessment](#) to give an evidence-based answer to the following question: **Would you allow the growing of GM plants in your country?**

## LEARNING GOALS

- By the end of the intervention students are expected to:
- demonstrate an understanding of basic concepts, such as Biotechnology, Genetic engineering, genetically modified organisms
  - evaluate the credibility of evidence by applying specific criteria
  - provide an evidence-based answer to the question whether they would allow the growing of GM plants in their country, taking three perspectives into consideration: the environment, economy and health.

## INQUIRY ACTIVITY OVERVIEW

- 1 Introduction on basic concepts: Biotechnology, Genetic Engineering, GMOs.
- 2 Students' hands-on experience with two experiments: DNA extraction and gene transfer.
- 3-4 Inquiry in STOCHASMOS. Risk assessment (environment, health, economy).
- 5-6 Criteria for evaluating the credibility of evidence. Inquiry in STOCHASMOS (cont.)
- 7 Synthesis into a final report and peer-feedback in STOCHASMOS.
- 8 Student presentations.

## SECOND ENACTMENT

**Begin date:** Oct. 15<sup>th</sup> 2009

**End date:** Dec. 10<sup>th</sup> 2009

**Number of sessions:** 8

**Duration of each session:** Weekly, 90-minute sessions

**Grade level:** 11<sup>th</sup> grade (16-17 years old)

**Subject:** Biology elective course titled "Humans and Health"

**Number of participating students:** 21

**Enactment teachers:** 1

## WORKSPACE

The WorkSpace environment consisted of three different types of templates.

The first type of templates supported students in conducting a risk assessment to create evidence-based arguments in each one of the three areas: economy, environment and health.

The second type of templates supported students to synthesize their findings and the third type supported them to compose their final decision.