



## Biology Toolkit: Indicator 1.7.2

Student Handout: Biology: Indicator 1.7.2

### Goal 1.0 Skills And Processes

Expectation 1.7 The student will show that connections exist both within the various fields of science and among science and other disciplines including mathematics, social studies, language arts, fine arts, and technology.

Indicator 1.7.2 The student will identify and evaluate the impact of scientific ideas and/or advancements in technology on society.

### Public Release - Selected Response Item - Released in 2009

Biology Indicator 1.7.2

Use the information below to answer the following item.

Scientists genetically modified a variety of corn to protect it against pests like the corn borer. The corn borer is an insect caterpillar that feeds on the corn stalk, which weakens the stalk and makes it fall over. A new gene in the genetically modified corn causes the plant to produce a chemical that is toxic to the corn borer. Some people are concerned that the genetically modified corn could harm other insects such as the monarch butterfly caterpillar. The monarch caterpillar eats leaves of milkweed plants that might be coated with toxic corn pollen. However, not all researchers agree with the concerns regarding the monarch butterfly caterpillar. They state that it is unusual for large amounts of harmful corn pollen to be found on milkweed leaves. Also, only a small percentage of caterpillars feed on the milkweed plants near corn fields.

What concern do scientists have about the monarch butterfly caterpillar consuming milkweed plants coated with modified corn pollen?

- A. The milkweed population would decline.
- B. The caterpillars could spread the modified pollen.
- C. The food source of the monarch butterfly could be affected.
- D. The caterpillars could pass the toxin to the milkweed plants.

Correct Answer

- C. The food source of the monarch butterfly could be affected.

## Item

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