

Curriculum Units by Fellows of the National Initiative 2013 Volume VI: Genetic Engineering and Human Health

## **Controversial Issues Regarding the Consumption of Genetically Modified Crops**

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The artificial manipulation and insertion of genetic material from one organism into that of another is the basic underlying principle of genetic engineering. As we enter the twenty-first century, applications of genetic engineering will become particularly important in the areas of medicine, agriculture, and industry. At the present time, however, there are a number of deep seeded controversial issues regarding the creation and/or use of genetically engineered products. The two major objectives of this curriculum unit are to: 1. examine those issues involving the creation and consumption of genetically modified crops, and 2. improve the critical thinking and reading comprehension skills of my students. Since it is essential that the students have a thorough understanding of molecular genetics, a significant portion of this unit will be devoted to reviewing the structure of DNA, transcription, translation, and genetic engineering. After an in-depth review, the students will be given the opportunity to debate a number of scenarios involving the consumption of genetically modified crops. This curriculum unit is intended for eleventh or twelfth grade students enrolled in an average or honors environmental science class.

(Developed for Environmental Science/Science, grades 11-12; recommended for Environmental Science and Biology, grades 9-12)

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