Map Terrain of GMOs Tactical Media Project

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ENG 1710- Introduction to Language & Technology

**What are GMOs?** Genetically modified organisms (GMOs) are organisms (i.e. plants, animals or microorganisms) in which the genes (DNA) of one species is extracted and artificial forced into the genes of an unrelated species. The technology is often called genetic engineering.

**What are the main issues of concern for human health?** The three main issues are the potentials to enflame allergic reaction (Allergenicity), gene transfer and outcrossing.

1. Allergenicity: No allergic effects have been found relative to GM foods currently on the market.
2. Gene transfer: The use of gene transfer technology that does not involve antibiotic resistance genes is encouraged.
3. Outcrossing: The migration of genes from GM plants into conventional crops or related species in the wild (referred to as “outcrossing”), as well as the mixing of crops derived from conventional seeds with GM crops, may have an indirect effect on food safety and food security.

**When did the production of GMOs begin?** In 1982 the FDA approves of the first ever GMO
Humulin, insulin produced by genetically engineered E. coli bacteria and in 1994 GMOs makes its appearance in grocery stores. The United States Food and Drug Administration approves the Flavr Savr tomato for sale on grocery store shelves. The delayed-ripening tomato has a longer shelf life than conventional tomatoes.

**Why are GM (genetically modified) foods produced?** GM foods are developed and marketed because there is some supposed benefit either to the producer or consumer of these foods. Benefits include a product with a lower price, greater benefit (in terms of durability or nutritional value) or both such as reduced need for pesticides, greater food security, increased crop yields etc.

**How are GM foods regulated nationally?** The way governments have controlled genetically modified foods differs. Thailand, Algeria, Brazil, and Paraguay all have banned the import, distribution, commercialization, and utilization of genetically modified crop in some if not all parts of the county. In some countries genetically modified foods are not yet controlled. Countries that have legislation in place focus mainly on assessment of risks for consumer health.

**What further developments can be expected in the area of GMOs?** Future genetically modified organisms are likely to include plants with improved resistance against plant disease or drought, crops with increased nutrient levels, fish species with enhanced growth characteristics (i.e salmon). For non-food use, they may include plants or animals producing pharmaceutically important proteins such as new vaccines.