

BIOTECHNOLOGY REVIEWER

- These companies feel that considering consumer fears and labeling can improve their image as well as reduce fear.

ENVIRONMENTAL CONCERNS

Because we coexist with these organisms it is also believed that any environmental harm we cause will eventually affect the human population as well through outlets such as the food chain, water sources, and even the air that we breathe.

Bacillus thuringiensis (bt) is a bacterium that occurs naturally and has recently become popular because of its pest control abilities.

- BT has been used in crops such as corn, potatoes, and cotton.
- When there is widespread use of Bt toxins the result is that only those insects that can tolerate the toxins will survive.
- When those resistant insects mate with one another and reproduce, the number of toxin-resistant insects grows and the fear is that the Bt toxins will become ineffective as pest control.

Biodiversity is known as the number and variety of organism found within a specific geographical region.

A **super weed** is one that is difficult to kill by current means and could possibly take over agricultural crops.

- This poses severe threats to many agriculture commodities, whether they are GMOs or not.

- The **Department of Health and Human Services National Institutes of Health** has created guidelines for the use of genetically engineered substances in laboratories.
- The **National Research Council** has studied environmental risks and determined that there is virtually no difference in the risk level of bioengineered plants created through modern techniques and those produced by conventional methods.
- In addition, the **APHIS** makes the determination whether a plant is safe among other existing plants in the environment and whether it is as safe as plants produced by traditional methods.
- The **U.S. Environmental Protection Agency (EPA)** puts together science advisory panels, made up of independent scientists, to address environmental concerns before and/or after a bioengineered crop is put on the market.
 - The **EPA** also inspects the safety of herbicides and pesticides placed in the environment by looking at their effectiveness, their safety to humans, the role that a substance will play in the environment, and the possible effects it could have on other species that will contact.