Genetically Modified Food

A Seminar Talk
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SUMMARY

What is Genetic Modification?

The techniques of modern genetics have made possible the direct manipulation of the genetic makeup of organisms.In agriculture, genetic engineering allows simple genetic traits to be transferred to crop plants from wild relatives, other distantly related plants, or virtually any other organism.

Recombinant DNA technology thus has brought a new precision to the process of crop development, which traditionally selects desired traits through crosses between crops and their wild relatives (a laborious and relatively imprecise method).

Genetic modification can be used in many ways to control a variety of traits of plants, and the consequences of one manipulation may be completely different from another based on the traits modified.

What Are the Benefits?

Genetically modified foods (GM foods or GMF) offer a way to quickly improve crop characteristics such as yield, pest resistance, or herbicide tolerance, often to a degree not possible with traditional methods. Further, GM crops can be manipulated to produce completely artificial substances, from the precursors to plastics to consumable vaccines.

What are the Risks?

The power of genetic modification techniques raises the possibility of human health, environmental, and economic problems, including unanticipated allergic responses to novel substances in foods, the spread of pest resistance or herbicide tolerance to wild plants, inadvertent toxicity to benign wildlife, and increasing control of agriculture by biotechnology corporations.