

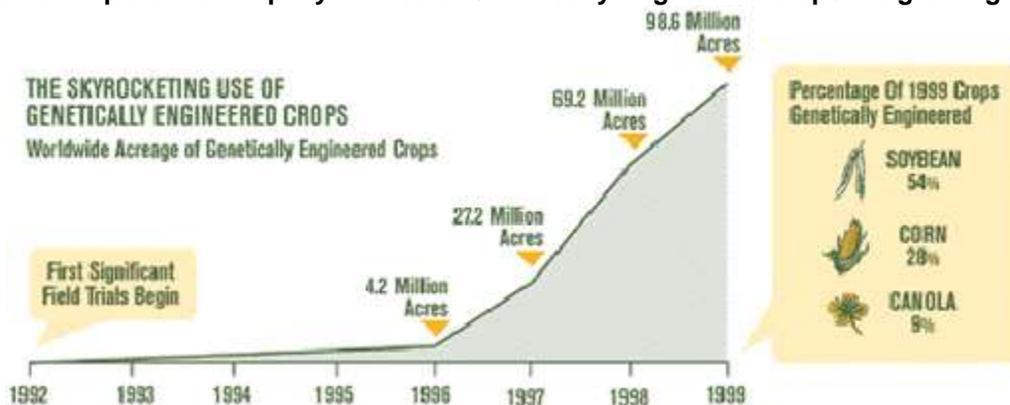
BREWERS DIRECT

"The Wine Specialist"

Are GMO's a cause for concern?

What is Genetic Engineering? : Genetic engineering is a laboratory technique used by scientists to change the DNA of living organisms. DNA is the blueprint for the individuality of an organism. The organism relies upon the information stored in its DNA for the management of every biochemical process. The life, growth and unique features of the organism depend on its DNA. The segments of DNA which have been associated with specific features or functions of an organism are called genes. Molecular biologists have discovered many enzymes which change the structure of DNA in living organisms. Some of these enzymes can cut and join strands of DNA. Using such enzymes, scientists learned to cut specific genes from DNA and to build customized DNA using these genes. They also learned about vectors, strands of DNA such as viruses, which can infect a cell and insert themselves into its DNA. With this knowledge, scientists started to build vectors which incorporated genes of their choosing and used the new vectors to insert these genes into the DNA of living organisms. Genetic engineers believe they can improve the foods we eat by doing this. For example, tomatoes are sensitive to frost. This shortens their growing season. Fish, on the other hand, survive in very cold water. Scientists identified a particular gene which enables a flounder to resist cold and used the technology of genetic engineering to insert this 'anti-freeze' gene into a tomato. This makes it possible to extend the growing season of the tomato. At first glance, this might look exciting to some people. Deeper consideration reveals serious and unknown dangers.

Here is an example of how rapidly the use of Genetically Engineered crops are growing:



You are eating genetically engineered food. Is it good for you? Do you have a choice? : Genetic engineering is the largest food experiment in the history of the world. We are all the guinea pigs. There are about 40 varieties of genetically engineered crop approved for marketing in the U.S. As a result, 60-70% of the foods you eat and the beverages you drink contain genetically engineered (GE) components. Genetically engineered foods contain substances that have never been a part of the human food supply. They are not subjected to rigorous pre-market safety testing. And THEY ARE NOT LABELED. Is genetic engineering safe for consumption? Safe for the environment? Safe for the future of mankind? No long-term studies have been done. As of yet, no one can answer these questions. Do you want out of the experiment? Start by opting to purchase food and beverages that are certified to be G.M.O. FREE, (such as Advintage wine kits).

What do Scientists Say about the Dangers of Genetic Engineering? :

Dr. John Fagan (Professor of Molecular Biology, Maharishi University of Management; President,

Genetic ID) “When genetic engineers disregard the reproductive boundaries set in place by natural law, they run the risk of destroying our genetic encyclopedia, compromising the richness of our natural biodiversity and creating ‘genetic soup.’ What this means for the future of our ecosystem, no one knows.”

Dr. John S. Hagelin (Professor of Physics, Maharishi University of Management Presidential Candidate, The Natural Law Party) “The fact is, it is virtually impossible to even conceive of a testing procedure to assess the health effects of genetically engineered foods when introduced into the food chain, nor is there any valid nutritional or public interest reason for their introduction.”

Dr. Richard Lacey (Professor of Food Safety, Leeds University, UK) “Genetic engineering bypasses conventional breeding by using artificially constructed parasitic genetic elements, including viruses, as vectors to carry and smuggle genes into cells. Once inside cells, these vectors slot themselves into the host genome. The insertion of foreign genes into the host genome has long been known to have many harmful and fatal effects including cancer of the organism.”

Professor Mae Wan-Ho (Department of Biology, Open University, UK) “In 1983, hundreds of people in Spain died after consuming adulterated rapeseed oil. This adulterated rapeseed oil was not toxic to rats.” Dr. Parke warns that current testing procedures for genetically altered foods including rodent tests do not prove safety for humans. He has suggested a moratorium on the release of genetically engineered organisms, foods, and medicines.

Professor Dennis Parke (School of Biological Sciences, University of Surrey, UK) “Genes encode proteins involved in the control of virtually all biological processes. By transferring genes across species barriers which have existed for eons between species like humans and sheep we risk breaching natural thresholds against unexpected biological processes. For example, an incorrectly folded form of an ordinary cellular protein can under certain circumstances be replicative and give rise to infectious neurological disease.”

Dr. Joseph Cummins (Professor Emeritus of Genetics, University of Western Ontario) “We see this as a multi-million dollar problem. In Europe, there is already a big problem with gene flow between wild beet and cultivated beet. Oil-seed rape (canola) also has close relatives and is going to cause problems in the future. One would expect that the kind of genes that are now being engineered are going to be the ones that have a higher potentiality for causing trouble.”

Dr. Norman Ellstrand (Professor of Genetics, University of California) “The generation of genetically engineered plants and animals involves the random integration of artificial combinations of genetic material from unrelated species into the DNA of the host organism. This procedure results in disruption of the genetic blueprint of the organism with totally unpredictable consequences. The unexpected production of toxic substances has now been observed in genetically engineered bacteria, yeast, plants, and animals with the problem remaining undetected until a major health hazard has arisen. Moreover, genetically engineered food or enzymatic food processing agents may produce an immediate effect or it could take years for full toxicity to come to light.”

What does “food grade” mean? : All food products have to be certified by the “Food & Drug Administration” to be “food grade” and deemed safe. Unfortunately in products such as wine kits that are comprised from a variety of raw materials some manufacturers use components which are not certified to be “food grade”. Would you buy a pack of frozen vegetables if you knew that they were treated with aluminum? Of course not! So why would you want to buy a wine kit including these kinds of ingredients? How does this affect the consumer? At this point there is no way to know the long term affects. But as they saying goes, “It’s better to e safe than sorry”!

- **At Advintage EVERY raw material, micro ingredient and add pack ingredient are certified “food grade”.**
- **At Advintage EVERY raw material, micro ingredient and add pack ingredient are certified “G.M.O free”.**
- **Advintage has the ONLY wine kits on the market that claim these two “Advantages”.**