

Genetically engineered food : a serious health risk / Natural Law Party.

Contributors

Natural Law Party (U.K.)

Publication/Creation

Mentmore : Natural Law Party, [1996?]

Persistent URL

<https://wellcomecollection.org/works/swpf8tkc>

License and attribution

Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).

**wellcome
collection**

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

Genetically Engineered Food—A Serious Health Risk

GENETICALLY ENGINEERED FOODS containing genes derived from animals, fish, insects and bacteria are now starting to appear in the shops. The genetic changes now being made in our food are completely different to those resulting from traditional methods of breeding. Yet, the sale of these foods is being permitted without proper assessment of the risks and without adequately informing the public, even though many scientists say that genetically modified foods could cause serious damage to health and the environment.

What is genetic engineering?

Genes are the blueprints for every part of an organism. Genetic engineering is the process of modifying this information, particularly by artificially transferring the genes specific to one type of organism into another.

Why do it? Scientists want to transfer desirable qualities from one organism to another, for example, to make a crop resistant to a herbicide or to enhance food value.

Is it necessary? At first sight it may seem appealing. However, closer examination of the issues gives a different picture. We should by now be alert to the dangers of interfering with nature. We already have the ability to feed the world's population economically without the risks posed by genetic engineering. Commercial and political motives are taking precedence with little regard to the possible dangers.

What are the dangers? (Please see overleaf for a more detailed discussion.)

Those identified so far include:

- New toxins and allergens in foods
- Other damaging effects on health caused by unnatural foods
- Increased use of chemicals on crops, resulting in increased contamination of our water supply and food
- The creation of herbicide-resistant weeds
- The spread of diseases across species barriers
- Loss of bio-diversity in crops
- The disturbance of ecological balance
- The artificially induced characteristics and inevitable imperfections will be passed on

Despite their advantages many technologies produce disastrous side-effects.

There is now a serious debate on the acceptability of some of these unpredicted side-effects, such as nuclear pollution, global warming, and the toxic effects of pesticides and herbicides. Medicines are often withdrawn because the side-effects turn out to be too poisonous. In every case, it takes time for the effects to come to light and be evaluated before action can be taken. **Genetic engineering poses the greatest danger of any technology yet introduced.** Safety testing will never be adequate, because organisms once introduced can never be recalled from the environment and their effects will spread without limit. If action is not taken now, virtually everyone in the world will soon be eating genetically engineered foods and will be at risk.

For further information and solutions read:

Genetic Engineering: The Hazards, Vedic Engineering: The Solutions by John Fagan PhD — an award-winning geneticist who returned his government grants and began new research in Maharishi's Vedic Science. **To order, tel: 01695-51015**



*We must
act before
it is too
late!*

Genetically engineered foods are being introduced without due regard for health, yet any damaging effects will be irreversible.

WHAT IS NEEDED

It is quite clear even from existing research that a ban on genetically engineered foods and a moratorium on the release of all genetically modified organisms is essential to protect health.

In the meantime, labelling should be required for all foods which contain any genetically modified ingredient, even if it is only one, or where genetically modified organisms have been used in the production of the food.

Full disclosure labelling will allow consumers to choose what they eat. It will also help scientists trace the source of health problems arising from these foods.

WHAT YOU CAN DO

● **Write to your MP and MEP, supermarkets, the press and consumer groups, expressing your concern and enclosing this leaflet.**

● **Make copies of both sides of this sheet for friends, family, colleagues, students, trades unions, clubs and societies. Alert everyone to the dangers.**

CAMPAIGN TO BAN GENETICALLY ENGINEERED FOOD

To support this campaign, or for bulk orders of this leaflet, please contact: Natural Law Party, Mentmore, Bucks, LU7 0QH Fax 01296 662486. For info pack please send £1 in stamps; for video send £11 including p & p payable to NLP

DANGERS OF GENETICALLY ENGINEERED FOODS

The scientific facts demonstrating the need for an immediate worldwide ban

Given the huge complexity of genetic coding, even in very simple organisms such as bacteria, no one can possibly predict the effects of introducing new genes into any organism or plant. *This is because:*

- the transposed gene may act differently when working within its new host
- the original genetic intelligence of the host will be disrupted
- the new combination of the host genes and the transposed gene will have unpredictable effects; and therefore
- there is no way of knowing the overall, long-term effect of these foods on the health of those who eat them.

The following are some of the facts:

- **Unnatural gene transfers from one species to another are dangerous** Biotechnology companies erroneously claim that their manipulations are similar to natural genetic changes or traditional breeding techniques. However, the cross-species transfers being made, such as between fish and tomatoes, or between other unrelated species, would not happen in nature and may create new toxins, diseases, and weaknesses. In this risky experiment, the general public is the guinea-pig.

Biotechnology companies also claim their methods are precise and sophisticated. In fact, there is a random element in gene insertion methods. Genetic research shows that many weaknesses in plants, animals and humans have their origin in tiny imperfections in the genetic code. Therefore, side-effects and accidents are inevitable, and scientists have assessed the risks to be unlimited. (Refs: Palmiter, R.D. et al (1986) *Annual Review of Genetics* 20:465; Inose, T. et al (1995) *Int. Jour. Food Science Tech.* 30:141.)

- **Unpredictable health damaging effects** When genetic engineers insert a new gene into any organism there is a "position effect" which entails an unpredictable pattern of gene expression and genetic function. The protein product of the transposed gene may carry out unexpected reactions and produce potentially toxic products. There is also serious concern about the dangers of using genetically engineered viruses as delivery vehicles (vectors) in the generation of transgenic plants and animals. This could destabilise the genome and also lead to horizontal gene transfer to other species, including mammals. This could cause dangerous new diseases, resistance to antibiotics, and severe immune reactions. (Refs: Green, A.E. et al (1994) *Science* 263:1423; Osbourn, J.K. et al (1990) *Virology* 179:921; Mae-Wan Ho (1996) Biology Dept., Open University.)

- **Genetically engineered products carry more risks than traditional foods** The process of genetic engineering can thus introduce dangerous new allergens and fatal toxins into foods that were previously naturally safe. Already, one genetically engineered soybean was found to cause severe allergic reactions, and bacteria genetically engineered to produce large amounts of the food supplement, tryptophan, have produced toxic contaminants that killed 37 people and permanently disabled 1,500 more in the USA. (Refs: Nordlee, J.A. et al (1996) *The New England Journal of Medicine* 688; Mayeno, A.N. et al (1994) *Tibtech* 12:364.)

- **Increased pollution of food and water supply** It is estimated that about 57% of research by biotechnology companies is on the development of herbicide-resistant plants and that this will lead to a threefold increase in the use of herbicides, resulting in even higher concentrations of chemicals in

food and in the water run-off from the land. (Ref: Goldberg, R.J. (1994) *Weed Technology* 6:647.)

- **Health-damaging effects caused by genetic engineering will continue forever** Unlike chemical or nuclear contamination, gene pollution can never be cleaned up; effects of genetic mistakes will be passed on to all future generations of a species.

- **Inadequate government regulation** Biotech companies claim that government regulatory bodies will protect consumers. However DDT, Thalidomide, L-tryptophan, etc. were approved by British and US regulators with tragic results. Recently, US tests found that 80% of supermarket milk contained traces of either medicines, illegal antibiotics used on farms, or hormones, including genetically engineered Bovine Growth Hormone (rBGH). The facts show that regulators are not protecting the public adequately. (Ref: Epstein, S.S. (1996) *Int. Jour. Health Services*, 26:173.)

- **Ethical concerns** Transferring animal genes into plants raises important ethical issues for vegetarians and religious groups. It may also involve animal experiments which are unacceptable to many people.

- **Genetic transfer across species and competition from new species damaging the environment** When new genetic information is introduced into plants, bacteria, insects or other animals, it can easily cross into related organisms, through processes such as cross pollination. This process has already created "super weeds". Existing species can also be displaced from the ecosystem with disastrous effects, as happened with genetically modified *Klebsiella* soil bacteria.

Crops are now being engineered to produce their own pesticides. This will promote the more rapid appearance of resistant insects and lead to excessive destruction of useful insects and soil organisms, thus seriously perturbing the ecosystem. In addition, the pesticide produced by the plant may be harmful to the health of consumers. (Refs: Union of Concerned Scientists (1994) *Gene Exchange*, 5:68; Mikkelsen, T.R. et al (1996) *Nature* 380:31; Skogsmyr, I. (1994) *Theoretical and Applied Genetics* 88:770; Hama, H. et al (1992) *Applied Entomology and Zoology* 27:355.)

- **Inadequate safety at research facilities** UK research institutions have little protection to ensure that experimental genetically engineered organisms are not escaping. For example, seeds can be blown by the wind over low fences or carried great distances by birds very quickly. It is not possible for anyone, any farm, or any country to isolate itself from the potentially disastrous effects of genetic manipulation.

Global threat to humanity's food supply The introduction of genetically engineered foods amounts to a dangerous global experiment by giant transnational biotechnology companies who control large segments of the world's food supply, including food patents, seed companies and other aspects of the food chain. Short term commercial gain is being placed before the health and safety of the whole population. This could result in many unanticipated, irreversible problems leading to food shortages and large-scale health threats.

- There is no logical scientific justification to change suddenly almost all foods through irreversible genetic engineering. The genetic structure of plants has been nourishing mankind for millennia. Tampering with the genetic code of food is reckless and poses a serious threat to life. It could easily upset the delicate balance between our physiology and the foods that we eat. **There is already ample scientific justification for an immediate ban on the release of all genetically modified organisms in order to safeguard our health.**

CAMPAIGN TO BAN GENETICALLY ENGINEERED FOOD

To support this campaign, or for bulk orders of this leaflet, please contact:
Natural Law Party, Mentmore, Bucks, LU7 0QH Fax 01296 662486. For info pack please send £1 in stamps; for video send £11 including p & p payable to NLP