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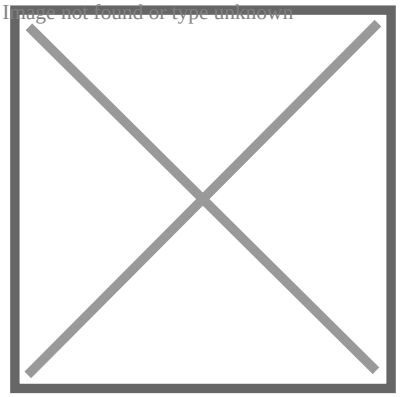

Genetically modified products – Boon or bane?

Description

Background :-

- Agricultural Biotechnology is the area of bio-technology involving applications to agriculture.
- In Agricultural biotechnology, cross-breeding of plants used to be done to get desired results such as disease resistant plants and to increase crop productivity etc.
- In the 1970s scientists were succeeded to manipulate DNA at molecular level through molecular biotechnology. DNA is the chemical building block, which specifies the characteristics of living organisms. And this technology is called as genetic engineering.
- The foods developed from this technology are called as ‘genetically modified products’ or ‘GMO foods’ or ‘Biotech foods’.
- Through genetic engineering, we can take genes from any organism and can introduce these genes into another organism instead of cross-breeding several times to get the desired results.

In Favor :-

- Increased crop productivity.
- Instead of using pesticides, we can induce insecticides in plants, which is cost effective. By this crop protection increases.
- We can improve nutritional value of foods by inducing the genes of high protein and vitamin contained foods.
- We can improve the flavor of foods.
- Through genetic engineering, we can prevent decay, damage, ripening of foods and loss of nutrients up to few days. So transport of foods become easier and consumers can take fresh foods.
- As genetic engineering reduces the use of pesticides, it is a boon for environment, ground water and for farm workers also.
- In developing countries poor people can’t afford vitamin supplements. By genetic

engineering we can induce vitamins in rice as many people take rice-based diets.

In Against :-

- Some people are allergic to some proteins especially proteins from peanuts.
- It'll have effect on 'non target' species such as butterflies and caterpillars, as insecticides are induced in plants.
- Natural seed varieties and some foods will become extinct. It'll cause loss of biodiversity.
- Farmers have to buy seeds every year as seeds from last year's hybrids will not produce plants identical to the parent plant.
- Some researches found that these foods have the risk of getting some cancers.
- Cornucopia Institute research found that there is a risk of getting birth defects and also the risk of shorter life spans because of these foods.
- It may have impact on long-term food supply.

Conclusion:-

If we take care of these drawbacks, Genetic engineering will be the great benefit to everyone especially for the people of developing countries.

Your Turn :- What are your thoughts on this topic? Feel free to express your opinion in the comment section below.