

GM Foods



The Debate over Genetically Modified Foods

- ☛ A tomato that softens more slowly, allowing it to keep longer on the shelf;
- ☛ Potatoes that absorb less fat when fried; changing French fries from junk food into a more nutritional **one**;
- ☛ Strawberry crops that can survive frost.

These are just some of the benefits promised by biotechnology. The debate over **its** advantages and safety, however, continues.

Benefits: one side of the debate

Economical GM supporters tell farmers that **they** stand to reap enormous profits from growing GM crops. Initially, considerable investments are needed since to produce **them**, modern biotechnology is used which requires highly skilled people and sophisticated equipment. This is why GM crops are more expensive for farmers than traditional crops. However, GM crops, farmers are told, are a far better option since it takes a shorter time to produce the desired product.

Herbicide-resistant GM crops can be produced to resist herbicide. This means that farmers could spray these crops with herbicide and kill the weeds, without affecting the crop. In effect, the amount of herbicide used would be reduced.

Biotechnology companies are even experimenting with crops that can be genetically modified to be drought and salt-tolerant, opening up new areas to be farmed and leading to increased productivity. However, the claims of less herbicide usage with GM crops have till now not been independently supported by facts.

Better quality foods Even animals can be genetically modified to grow faster and need less food. **They** could be modified to have special traits, such as greater milk production in cows.

Risks: the other side of the debate

Environmental impact Little is known about the impact that GM crops will have on the environment. The genetic structure of any living organism is complex and GM crop tests focus on short-term effects only. There is not enough research yet into their long-term risks or impact on biodiversity.

Dangers of herbicide resistance In Europe, a strain of sugar beet that was genetically modified to be resistant to a particular herbicide has inadvertently acquired the genes to resist another. This was discovered when farmers attempted to destroy the crop in Britain, France and the Netherlands, **where** it was being tested, and 0.5% of the crop survived. Farmers had to use more noxious herbicides to remove the remainder of the plantation.

Allergies and toxins Very little scientific information exists about the risk of GM food on human health. One major report explains how GM foods could trigger new allergies and contain toxins **that** may be harmful. Another concern is disease. Since some crops are modified using the DNA from viruses and bacteria, will we see new diseases emerge?

by Kerryn Sakko

(Abridged and freely adapted)

SOURCE: <http://www.actionbioscience.org/biotechnology/sakko.html>

A. Match the parts according to the text.

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none">1. Food can be genetically modified2. Despite the initial cost,3. Using herbicides on GM crops4. It may be possible to grow GM crops5. Whether GM crops need less herbicide6. Herbicide-resistant crops may change7. To eliminate a crop completely, | <ol style="list-style-type: none">a) and become resistant to other herbicides.b) will only affect the weeds.c) in harsh environments.d) to stay fresh longer and have more nutritional value.e) farmers had to use more deadly chemicals.f) has yet to be proved.g) GM crops are seen as a good investment for farmers. |
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B. Find evidence in the text for the following.

1. A GM fruit can endure very cold temperatures.
2. Farmers can make a lot of money from GM crops.
3. These crops grow much faster than traditional crops.
4. It is believed that GM crops would require less herbicide.

C. Answer the questions in complete sentences.

1. Why are GM foods still a controversial issue?
2. Which dangers can GM foods pose to people's health?

E. What do the **bold** words refer to in the text?

1. one 2. its 3. they 4. them 5. they 6. where 7. that

D. Complete the sentences below with ideas from the text.

1. This article presents both
2. Growing GM crops is initially costly because ...
3. Cows could be genetically modified to ...
4. Since tests on GM crops focus only on their short-term effects, it is hard to predict how they ... in the long run.

F. DOUBLE COMPARATIVES

1. Rewrite each sentence using *the...*, *the...comparative*. Make any necessary changes.

- a) I am well informed. I feel confident about eating GM foods.
- b) GM crops are insect-resistant. They produce high yields.

2. Complete the sentences showing that something is gradually increasing. Use the adjectives from the box and match them with the sentences.

- a) Studies show that GM foods are becoming ... for human consumption.
- b) GM supporters believe that GM crops will be ... for farmers.
- c) People are starting to buy organic food more because it's getting
- d) Experience has shown that GM foods are getting ... to pests and weeds.
- e) The debate over GMO's is getting
- f) Due to technological advance, it's becoming ... to genetically modify food.

- resistant
- easy
- safe
- cheap
- profitable
- hot

G. WORD FORMATION

Use the words from the box and change them into suitable nouns or adjectives to match them with the sentences.

- Through genetic (1), scientists can give crops built-in resistance to pests. That means less need for pesticides that are potentially (2) to the environment.
- Can GM foods really improve food (3)?
- (4) regulations are blocking the growing of GM crops in Europe.
- There is still no (5) consensus on the safety of GMOs.

- harm
- science
- restrict
- modify
- secure

H. WRITING

In about 200 words, write an opinion essay on the following.

What are the possible implications of cloning to society? Are there more benefits or risks?

