

Transgenic Crops

You will be using the Internet to learn information about transgenic crops. Not only will you discover what they are, but also how they are made and how they benefit humans. Begin by going to the following website. Then answer the questions below.

<http://www.colostate.edu/programs/lifesciences/TransgenicCrops/what.html>

1. Define a transgenic crop.
2. Scientists often refer to special crops as *GM* crops. What does *GM* stand for?
3. Describe what you see in the picture of the cotton plants. How does the chemical Bt help these plant?
4. Name four possible beneficial features that plants with altered genes have.
5. Normally bees, other insects, and birds pollinate plants. How is it beneficial for humans to pollinate plants instead?
6. Is it possible to transfer genes from a soybean plant into a corn plant? Explain your answer.

Click on the **Animation Demo** under the link **How Do You Make Transgenic Plants?** Click on **#1 Overview of the Process** and answer the flowing questions.

7. List the five steps in crop genetic engineering.

8. When an organism is found that has a desired trait, what do scientists take from that organism?

9. Define recombinant DNA.

10. When scientists are ready to put a transgene into a new plant, where must they place the gene? Why?

11. What does totipotent mean?

12. Are animals (like humans) totipotent?

13. Genetic engineering is not always successful. Out of millions of cells, how many are usually produced into a marketable plant?

14. Name three current transgenic crops that are being produced and sold today. (hint: click on the link for current transgenic crops)

15. Name at least five crops that are being researched and will likely be sold as GM crops in the future. (hint: click on the link for future transgenic crops)