

Unit 8 Food of the future

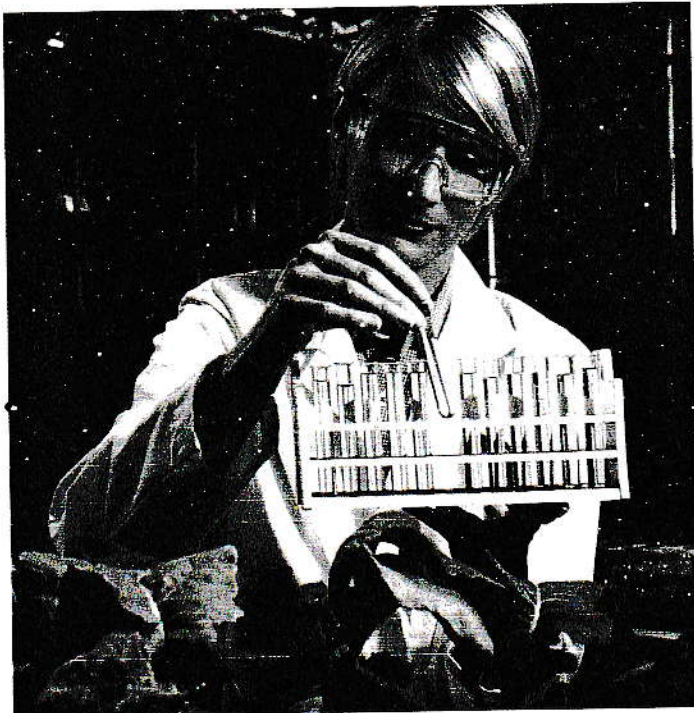
KEY READING SKILL SEPARATING FACT AND OPINION

KEY VOCABULARY SKILL SUFFIXES

Focus

1 Read the information and describe the picture.

Genetically modified (GM) crops contain a gene that has been artificially added. Crops that have genes added are also known as transgenic crops. The new gene may improve crop quality, helping the plant to resist disease, insects, and extreme temperatures, or help it grow more quickly. Described by some as dangerous, others say GM crops are the key to saving the planet.



GM – Fast facts

- The first GM tomato appeared in the U.S. in 1994.
- Popular GM crops are cotton, corn, and soybean.
- GM crops cover hundreds of millions of acres of land around the world.
- Millions of world farmers are growing GM crops in many different countries.

“ I never think of the future.
It comes soon enough. ”

Albert Einstein, physicist

2 Close your book and tell a partner what you can remember.

Think about it

- 1 What do you think about genetically modified crops? Work with a partner and write a list of advantages and disadvantages.
- 2 Make a group and share your ideas.

Vocab

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Vocabulary skills: Suffixes



KEY VOCABULARY SKILLS
STUDY SHEET 6, PAGE 163

1 Add a suffix to each word.

-ment -ance -al -ity -th -ly -ful -y -ally -er

- a grow _____ c discover _____ e harm _____ g resist _____ i genetic _____
 b require _____ d popular _____ f initial _____ h design _____ j cynic _____

2 Complete the text with the words above.

Europe and the GM debate

a _____, when GM foods first appeared in Europe, people were curious rather than concerned. However, this changed in 1999, when a report claimed that certain strains of b _____ modified potatoes might be c _____ to rats. This controversial d _____ was the start of a massive anti-GM food campaign throughout Europe, which resulted in a drastic reduction in the e _____ and import of GM crops for the next ten years.

In the late 2000s, opposition to GM crops began to decline – helped by high food prices and the growing f _____ of GM crops in other parts of the world, such as the U.S., Argentina, Brazil, India, China, Canada, and Australia. In 2008, permission was granted in the European Union (EU) for three limited research trials. However, stiff g _____ remains. Whereas there is no h _____ to label GM crops in the U.S., there are strict labeling laws throughout the EU. Moreover, research in 2008 showed that over half of EU citizens were still apprehensive about these “i _____” foods and j _____ about their benefits.

Predicting

Look at the title of the e-zine article you're going to read. What do you think you'll read about? Check (✓) your answers.

Is GM the answer?

- a the dangers of genetically modified foods
- b how GM foods are made
- c the future for GM foods
- d companies that make GM foods
- e the advantages of GM foods

Reading fluently



Read the text quickly. Time yourself, and record your time in the chart on page 6.

Is GM the answer?

For some, genetically modified (GM) food represents a key element in the fight against hunger and disease. It offers the world a bright new future free from famine and illness. Yet for others, the GM route is a reckless road we are being forced down by big business, which may have disastrous consequences for the planet and our safety. So, who are we to believe? Well, in this month's issue, we take a closer look at this controversial and divisive topic.

FOR



Advocates of GM crops say that to ignore the benefits would be irresponsible.

Supporters argue that for farmers, and indeed for all of us, the advantages of GM crops are overwhelming: GM crops are resistant to pests, resulting in better quality plants that yield bigger harvests. Drought-resistant and cold-resistant GM crops can help secure a reliable food supply in even the most inhospitable weather conditions. So, more food for everyone! And that's important, proponents say, as hundreds of millions of people around the world are already suffering from hunger, and by 2050, the population of the world will probably have increased to over nine billion. How else are we to feed the world? We have a responsibility to feed the earth's poor and hungry, and GM crops offer the only realistic way of preventing mass starvation. What's more, supporters argue that GM crops can provide improved nutrition to help fight disease and illness. They talk of tomatoes that could be capable of preventing cancer, and staples like rice and potatoes that could be boosted in nutrients to perhaps give a whole day's nourishment in a single serving. So, GM production means healthier food delivered in a more efficient, environmentally friendly way that helps us deal with the population challenges of tomorrow.

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AGAINST



Opponents of GM crops ask, "Just how safe are these new 'designer' foods?"

Not surprisingly, the development of GM crops does have its critics. The potential risks, they claim, cannot be ignored. The chemicals that are needed to grow GM crops can be harmful to animals and insects, and so disturb the food chain. They fear the emergence of "superbugs" capable of withstanding any pesticides. Farmers worry about genetic transfer, where GM crops could escape and crossbreed with wild plants. They say there could be no way back from such contamination. Opponents of GM crops also point to their unknown effects on humans. They say we cannot be sure exactly how these designer crops will affect us in the long term. They also argue that the advantages have been grossly exaggerated and point to some studies that show GM crops deliver lower yields than conventionally grown crops. Others worry about the potential grip of big business on farming. They claim that GM crops are being pushed by multinational biotech companies

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purely for profit reasons. They worry about Genetic Use Restriction Technology (GURT) - where a so-called "Terminator" gene can be introduced to crops, so that no seeds are produced and farmers have to buy fresh seeds each year from the manufacturer. Although only a theoretical possibility at present, many fear the introduction of GURT in the future.

There's one thing we can be sure of: more GM developments are on the way. Proponents talk of bananas that contain vaccines against infectious diseases, genetically modified fish that grow more quickly, and cloned animals for food.

While many fear such "Frankenstein foods," as long as there is a demand, GM food production will continue to flourish. Today, the U.S. and Argentina grow the majority of GM crops (mainly soybean, corn, and cotton). Tomorrow, perhaps all our fruit and vegetables, even the meat we eat, will be genetically modified.

Understanding the text

1 Answer these questions.

- What are the two main advantages of GM crops?
- What is "genetic transfer"?
- Which GM crop could be used to fight cancer?
- What does GURT stand for?
- Why are many farmers concerned about it?

2 With a partner, find ...

- a name given to pesticide-resistant insects.
- three ways GM production may develop in the future.
- a name given to GM foods by opponents.
- three ways GM crops are tougher than conventionally grown crops.
- the three most common GM crops.

3 Who or what do these adjectives describe?

- exaggerated
- realistic
- unknown
- disastrous
- divisive
- bright

the advantages
 way of ...
 effects on humans
 ...
 ...
 ...

4 Work with a partner. How many advantages and disadvantages of GM food production can you find? Can you add any more?

staple *noun* ★
 an important product, especially a food, that people eat or use regularly

clone *verb* ★
 to create an animal or plant in a laboratory that is an exact copy of another using the original animal's or plant's DNA

theoretical *adj* ★ ★
 based on theories or ideas instead of on practical experience

drought *noun*
 a long period of time when there is little or no rain and crops die

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- disastrous consequences
- divisive topic
- bright topic

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Spotlight on grammar: Future tense review

Study the examples, and then choose the best answer to complete each sentence.

By 2050, the population of the world **will probably have increased** to over nine billion.

Some people worry that without GM crops, we **won't be able to** feed ourselves.

In the future, perhaps all our food **will be** genetically modified.

Do you think that more farmers **are going to plant** GM crops?

People **will be arguing** about this issue for many years to come.

Can'ty future

- 1 As GM foods become more common, the debate over their value _____ get more intense.
- a will be c will have
b will d will being

- 2 The most urgent question to resolve _____ over the safety of GM food.
- a is going to be
b are going to
c will be going to
d will have been

- 3 Do you know how many farmers _____ growing GM crops in 20 years' time?
- a will be c will
b are going to d are

- 4 Perhaps even ten years from now, many countries _____ GM crops.
- a aren't going to approved
b aren't approving
c won't be approving
d won't have approved

- 5 What _____ to prevent the spread of GM foods?
- a will do protesters
b will protesters to do
c are protesters going to do
d are going to do protesters

- 6 Some governments _____ support GM crops until more research is done.
- a won't
b won't have been
c aren't able
d aren't going

- 7 Statistics show that most people in the U.S. _____ GM food, even if they didn't know it at the time.
- a are going to eat c will eat
b will be eating d will have eaten

- 8 _____ eating GM foods in a few years' time?
- a Are you going to c Will you be
b Will you have d Are you

Talk about it

1 Ask and answer these questions with a partner.

- a Do you think GM foods are safe?
b Have you eaten any GM foods?
c Should all GM products be labeled?
d Will GM crops replace conventionally grown crops?
e Can we feed the world without GM crops?

2 Make a group and compare your answers.