

Exam practice 6

Feeding the future

A In 1948, the botanist Jack Harlan collected a sample of wild wheat seeds in Turkey. The sample, which was given the number PI178383, produced a crop that was not good for baking and did not survive particularly well in winter. Nobody paid any attention to it until fifteen years later, when PI178383 was found to be unaffected by several diseases that were damaging other wheat crops. Agricultural scientists used the sample and mixed it with traditionally used seeds to create new kinds of wheat that were resistant to disease. This has saved farmers huge sums of money and has helped to feed millions of people.

B Today, scientists are interested in finding wild varieties of other crops. In recent years, the crops that we rely on have become so specialized, and have been grown for such specific climates, that any change in the global temperature could seriously affect how much food we have to eat. Around the world, seed collectors are gathering wild varieties – often ancestors of the crops we currently grow – in the hope that they contain strong genes which can be mixed with modern crops. This could be useful for protecting our food supplies in the future.

C Once the seeds have been collected, they are sent to the Millennium Seed Bank at Kew Gardens, London. Here, they are checked to make sure that they will grow properly. This is done in climate-controlled rooms, giving scientists an idea of how well the seeds grow at different temperatures. This data can be used to breed new varieties that grow well in changing conditions. Viable seeds – those that survive and grow successfully – are stored, so that plant breeders and scientists can do further experiments on them in the future.

D Many of these seeds have extremely useful features that are interesting to people involved in food production. Some seeds are able to survive attacks by bacteria and insects, while others can cope with droughts and floods. However, many wild varieties of crops are at risk of extinction due to low numbers. In an attempt to stop this decline, research has been carried out to show the economic value of storing these seeds for future use.

E It is estimated that the current value of commercial crops that have been mixed with wild varieties is over €30 billion. In the future, the value could be as high as €90 billion. Researchers hope that these kinds of figures will encourage more governments to support the collection of wild varieties. It seems that, to protect our future, we need to look at how nature can help us to widen our food supplies.

Reading

1 Answer the questions according to the information given in the text. Use your own words and full sentences.

- 1 Why are scientists interested in gathering wild varieties of crops?
.....
- 2 Why do scientists at the Millennium Seed Bank grow seeds in climate-controlled rooms?
.....
- 3 Why do scientists think that wild varieties of crops should be important to governments?
.....

2 Choose the correct answers.

- 1 When Jack Harlan first found PI178383, ...
A farmers were extremely interested.
B crops were being affected by a disease.
C people weren't interested.
- 2 Modern crops are so specialized that ...
A they might be affected by a change in global temperatures.
B they can grow anywhere.
C they are stronger than wild varieties.
- 3 Many wild varieties of crops are useful for modern food production because they can be ...
A grown cheaply.
B grown in difficult conditions.
C used to kill bacteria and insects.

Use of English

3 Find synonyms in the text for the words or phrases.

- 1 not affected by (*paragraph A*)
- 2 depend on (*paragraph B*)
- 3 capable of surviving (*paragraph C*)

4 Write questions for the answers according to the information in the text.

- 1 Jack Harlan.
.....
- 2 Because numbers are declining.
.....
- 3 Over €30 billion.
.....

Writing

5 Choose one of the tasks. Write 100–150 words.

- 1 Write a discussion essay with the following title: 'There is too much focus on technology in today's society, and not enough attention paid to the needs of people.' Discuss.
- 2 Write a description of your favourite modern building, car or gadget. Include reasons for your choice.

