

GCSE Biology A (Gateway)

J247/02 B4-B6 and B7 Foundation (Foundation Tier)

Question Set 7

1

In many countries, people rely on bananas for food.

Black sigatoka is a disease of banana plants.

The disease is caused by a fungus.

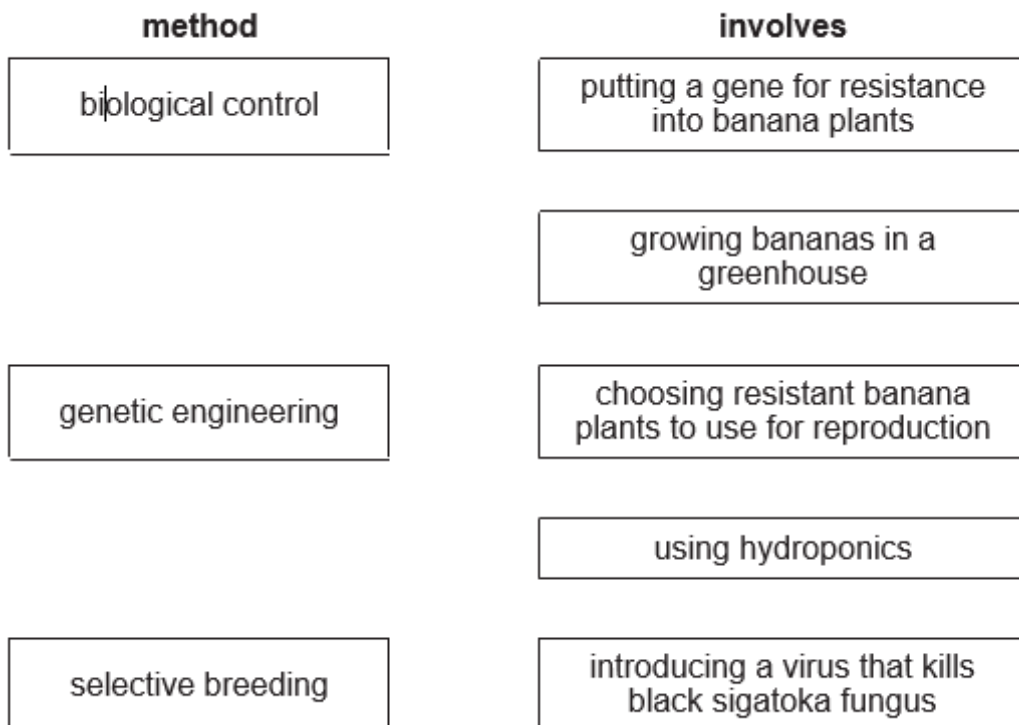
- (a) Banana plants grown by farmers are usually produced asexually. This process uses mitosis. This means that, if one banana plant dies of black sigatoka, all the bananas can die.

Explain why.

[1]

- (b) The food security of bananas could be improved using different methods.

Draw a straight line to join each **method** to a step that it **involves**.



[3]

- (c) (i) A type of pesticide called a fungicide can be used to kill the fungus.

Scientists are investigating how well a fungicide works. They also want to see if the fungicide works better if they add a chemical called a sticking agent. This helps the fungicide stick to the banana leaves.

The scientists grow banana plants in four blocks.

The table shows the treatments each block is given.

Block	Treatment	
	Fungicide	Sticking agent
A	✓	✓
B	✓	X
C	X	✓
D	X	X

Why did the scientists include the treatments given to block C and block D?

Block C.....

Block D

[2]

- (ii) After a few months the scientists gave the plants in each area a disease rating. The higher the disease rating the more disease present.

Block	Disease rating
A	20
B	35
C	45
D	60

What conclusions could the scientists make from this study?

[3]

Total Marks for Question Set 7: 9

OCR

Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge