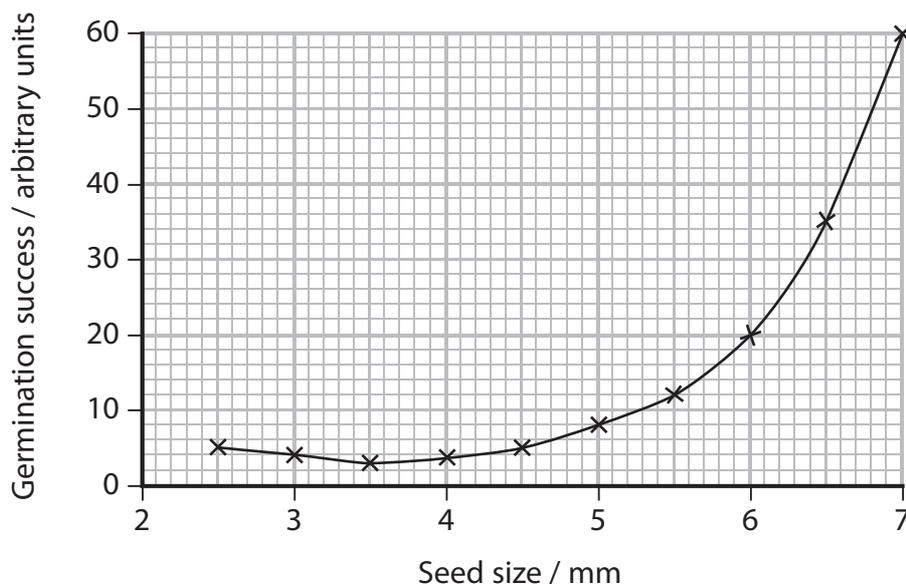


8 Seedbanks help in the long-term conservation of rare plant species by conserving the seeds of these species.

(a) Seedbanks carry out a variety of tests to select the best individual seeds to conserve. The germination success of the seeds is one of the tests that is carried out.

The graph below shows the effect of seed size on germination success for one species of plant.



(i) Using the information in the graph, suggest which seed size would be considered the best for the seedbank to conserve, giving a reason for your answer.

(1)

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(ii) Using the information in the graph, calculate the percentage change in germination success when seed size increases from 3 mm to 6 mm. Show your working.

(3)

Answer %



(iii) Seed size may be determined by the genotype of the seeds.
Suggest advantages of selecting seeds of different sizes for long-term storage. (3)

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(b) The best seeds will be selected for the seedbank.
Describe what the seedbank will do with these seeds to ensure the long-term conservation of the species. (4)

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(Total for Question 8 = 11 marks)

TOTAL FOR PAPER = 80 MARKS

