

WJEC England Biology

A-level

SP C2 04a - Germinating Seeds

Flashcards

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Outline how to investigate the digestion of starch agar using germination seeds.



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1. Cut seeds in half.
2. Place seeds on starch agar on a petri dish, and leave for 12-48 hours at 25 °C.
3. Set up the control.
4. Pour potassium iodide onto the plates and measure the area of the clear zone.



What does the zone of inhibition indicate?



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The clear zone indicates that starch has been hydrolysed by amylase (hence not stained by iodine). The larger the zone of inhibition, the higher the amylase concentration.



State 3 factors that may affect the rate of amylase activity.



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Age/type of seed

Gibberellin content

Temperature/pH



How is the control set up in this practical?



How is the control set up in this practical?

Heat half of the seed in a water bath over 80°C to denature the enzymes present.



Why is the control set up?



Why is the control set up?

To show that the difference in the size of the clear zone is due to the presence of enzymes in the seed.



What are some controlled variables of this practical?



What are some controlled variables of this practical?

Time left on starch agar plate

Source / age of seeds

