

Activity 13.8

To find out how auxin affects shoots

Skills

- A03.1 Using techniques, apparatus and materials
- A03.3 Observing, measuring and recording
- A03.4 Interpreting and evaluating observations and data

Safety

Use a wooden splint or a cotton bud to smear substances onto the coleoptiles, and avoid getting IAA onto your fingers.

In this experiment, you will use a kind of auxin called indoleacetic acid or IAA. When you put it onto a shoot, you need to mix it with lanolin so that it will stick on.

- 1 Germinate some maize grains in three pots, labelled A, B and C.
- 2 Mix some IAA with a little warm lanolin. Gently smear the mixture down one side only of each coleoptile in pot A. Put the IAA on the same side of each coleoptile. Put a label in the pot to show which side of the coleoptiles the IAA was put on.
- 3 Do the same with the coleoptiles in pot B, but use pure lanolin with no IAA in it.
- 4 Leave pot C untreated.
- 5 Put all three pots onto clinostats (see Activity 13.6) in a light place, and leave them for a day.

Questions

- A1 What has happened to the coleoptiles in pots A, B and C? Explain why.
- A2 What was the reason for smearing the coleoptiles in pot B with lanolin?
- A3 Why were all the pots put into clinostats?