

PROJECT 4-13

POLLEN IN HONEY

PROBLEM

Honey is sometimes sold with the different flavours kept separate (e.g. karri, white clover etc.) but more often as a blend. Honey contains a little pollen and the question is whether different sorts of honey have a distinct range of pollen types.

INFORMATION

To extract pollen from honey weigh out 10 g, dissolve in 20 mL water at 30-40 C. Centrifuge at low speed for 10 minutes. Pipette off supernatant leaving 1-2 cm above the sediment. Place a drop of sediment on straight into the stain.

_____ 5 mL glycerol, 10 mL 95% ethanol or methylated spirit, 15 mL distilled water, 3 drops of

_____ (road, Kewdale)
Glycerine jelly Gelatine 10 g, distilled water 60 mL. Mix and leave for 2 hours. Add glycerol 70 mL and phenol (crystalline) 0.25 g (take care, phenol is corrosive). Warm and stir for 15 mins until flakes produced by phenol have disappeared.

Store slides flat. Pollen will stain red. Slides will keep well if sealed with clear nail polish.

DESIGN OF EXPERIMENT

1. Are the pollen grains in honey of different shapes and sizes? (10 marks)