

PROBLEM

Pollen carried by wind can be taken to very high altitudes or hundreds of miles out to sea. However the distance from the parent plant that most of the pollen actually gets may be surprisingly small.

INFORMATION

1. Select your pollen source and expose Vaseline coated slides at various distances from the plant. Further information is found in Project 4-12, 4-13..
2. Selecting a pollen source is the difficult bit. It must be a plant that sheds lots of pollen and the pollen must have a distinctive shape. There must be no other plants of this species in the area. Neither can there be plants of another species with a similar sort of pollen in the area. A suitable plant would be a pine tree (an introduced plant) on a farm with no other pines around; a patch of *Juncus* (rush) in a wet spot with no other rushes (or bulrushes) around etc.
3. A hand tally counter is a help in counting pollen grains.

DESIGN OF EXPERIMENT

1. Are you going to expose slides only on the windward side of the tree or on all sides. How are you going to arrange to have slides exposed all at the same time? For how long will you expose slides? Will you shut down your experiment if the direction of the wind changes?
2. What environmental factors will you monitor while the slides are exposed?
3. Are you going to count all the pollen or just random fields on each slide?
4. What evidence are you going to present to show that other plants in flower are not contributing similar looking pollen?

REFERENCES

Knox, R.B. (1979) *Pollen and Allergy* (Studies in Biology No. 107) (Edward Arnold, London).