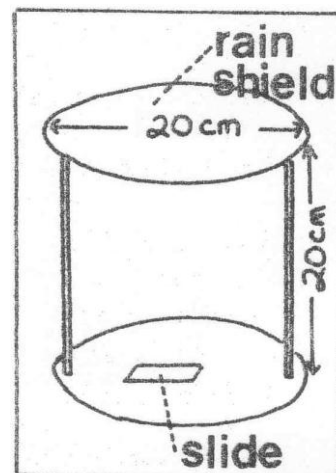


PROBLEM

Pollen in the air may cause hay fever in susceptible people. For this reason in spring and early summer, daily pollen counts are carried out and the results published in the West Australian on Saturdays. Data are only available for Perth and students from the hills district or distant country areas might find it interesting to compare the Perth data with what they can collect in their own district.

INFORMATION

1. Pollen can be collected by the gravity method – expose slides coated with vaseline for one day. Place slide about “nose height” in an exposed position away from any massive source of pollen (like a pine tree). Protect slide from rain with a shield about 20 cm above.
2. To observe pollen add a drop of Calberla’s fluid (Project 4-13) and add a long coverslip.
3. Pollen will be most abundant in spring, least common in summer and autumn.
4. Abundance is scored as 10 grains per sq. cm = low, 10-20 = moderate, over 20 = severe.
5. A microscope with a mechanical stage is helpful for scoring. Score at least 5 random transects across each slide.
6. Don’t overestimate how much you can score. An expert takes ½ hour per slide. Carefully labelled slides can be stored for later scoring.
7. Don’t try to differentiate between closely related pollens – i.e. score “grass pollen” rather than trying to figure out which belongs to a particular grass.

DESIGN OF EXPERIMENT

1. What other “objects” apart from pollen might you expect on your slides?
2. How are you going to identify the pollen you find?
3. Could a local doctor or hospital give you data on frequency of onset of asthma to correlate with your pollen counts?

REFERENCES

Asthma Foundation of W.A., 89 St. George’s Terrace, Perth for general information

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