

PROBLEM

Flies seem to land more thickly on some people's backs than others. Do they smell nicer (to the flies!) or is it maybe because they are wearing clothes of a certain colour? If the smell is attractive enough will the flies worry about colours?

INFORMATION

1. To standardize your experiment you will need some cooperative friends to have a swim then to sunbake and work up a nice sweat. To compare between people simply count numbers of flies in a marked area on their backs at set times.
2. To compare between colours lay over their backs a patchwork of coloured squares of thin cotton material, four primaries and black and white for a start. Record the number of landings in each square over a set period of time. Also use a patchwork of colours on the ground rather than on a person.
3. Many men sweat more than women so keep the records for your individuals separate.
4. If you can't talk your friends into it use a horse, cow or a sleeping dog.
5. To see if they worry about colour when there is a fantastic smell about try putting rotten liver or damp chook manure in containers and cover the tops with your squares of colour.

DESIGN OF EXPERIMENT

1. How will you make sure all the bits of cloth smell the same at the beginning of the experiment?
2. How many repeat scorings will you do?
3. For your between person comparison it may be necessary to use a statistical test. Consult your maths teacher.
4. How will you bribe your friends not to use deodorant, suntan lotion or fly repellent?
5. Will the time of day and temperature affect your results?

REFERENCES

Carthy, J.D. (1971). Introduction to the behaviour of invertebrates (Hafner : New York).

Chapman, R.F. (1969). The Insects, Structure and Function (University Press : London).

Dethier, V.G. (1962). To Know a Fly (Holden Day : San Francisco).