

## PROJECT 1-4

## NEMATODE TRAPPING FUNGI

### PROBLEM

Several fungi in soil can trap and digest nematodes. Some of these fungi produce sticky hyphae or spores which become attached to, and eventually penetrate passing nematodes; other fungi produce ring traps that inflate on contact, or coiled hyphae in which the nematodes become entangled. Can you grow nematode-trapping fungi and see them catch the nematodes?

### INFORMATION

1. Use cornmeal nematode agar. Read Section G on sterile techniques.
2. Culture nematodes on potato slices (Project 5-4) then wipe a piece of infected potato over a cornmeal agar plate. Allow nematodes to grow for a few days before adding soil.
3. Sprinkle a crumb of soil over the plate and watch the fungal hyphae grow out. They only produce traps in the presence of nematodes. Examine plates once a week. Nematode trapping fungi may appear after one week, or 2-3 months (for the constricting-ring type).
4. Do drawings to record the different types of nematode traps you see.
5. This is a difficult project as you have to be able to grow both the fungi and the nematodes and either can give a lot of problems with undesirable contaminants.

### DESIGN OF EXPERIMENT

1. Are you going to examine one soil type in detail or look at different soil types; sand, compost, mud from gutt