PODOSPORA AUSTROHEMISPHAERICA Lundqvist sp. nov.
(a heterothallic species)

Two mating strains: 185 and 250-8 (both originally from perithecia appearing on field-collected dung that was incubated in laboratory moisture chambers at Victoria University, Wellington, New Zealand by Ann Bell and Daniel P. Mahoney)

Strain 185 information: Dung collection information: NEW ZEALAND: N. ISLAND. Otaki Beach, ocean strand vegetation, horse dung collected 11 March 1990 by A. Bell and D. Mahoney. Herbarium material: original horse dung perithecia (WELTU 651, slides only -- The WELTU collection is housed in the School of Biological Sciences at Victoria University); additional herbarium material is being sent to the New York Botanical Garden. The latter material is a freeze-dried axenic culture (described below) of the successful mating between strains 185 and 250-8. Living axenic cultures: a single-ascospore-initiated culture was prepared - subcultures of this have been deposited at ATCC (ATCC 200699) and CBS (CBS 217.97). The same culture is currently being submitted to the Fungal Genetics Stock Center (FGSC).

Strain 250-8 information: Dung collection information: NEW ZEALAND: N. ISLAND. Waikawa Beach, ocean strand vegetation, rabbit dung (Oryctolagus cuniculus) collected Aug. 1993 by Ann Bell. Herbarium material: original dried rabbit dung with perithecia (WELTU 626); as noted above under strain 185, additional material is being sent to the NY Bot. Garden that represents a freeze-dried axenic culture of the successful mating between strains 185 and 250-8. Living axenic cultures: 2 single-ascospore-initiated cultures are available, subcultures of one, 250-8, have been deposited at ATCC (ATCC 200700) and CBS (CBS 216.97). The same culture is currently being submitted to the FGSC.

Information relevant to herbarium material being submitted to the New York Botanical Garden: A freeze-dried culture and 2 semipermanent slides are being submitted -- another such culture with semipermanent slides is being accessed as WELTU material at Victoria University. The 80 day old cultures (incubated at 17-21° C under lighting that varied from continuous fluorescent and incandescent to diurnal) were prepared by D. Mahoney (June 4, 1997 - August 23, 1997) as follows: 1) Difco corn meal agar (CMA) was poured over 4 whole, autoclave-sterilized, wild rabbit droppings which were arranged in a central row in a 9 cm plastic Petri dish, leaving approx. one third to one half of the droppings above the agar; 2) CMA agar block transfers of strains 185 and 250-8 were positioned on opposite sides of the central dung row; 3) perithecia appeared on, and near, the dung and some were mature by the 6th to 7th week -- more appeared and others matured after that time. Perithecia are large and conspicuous but not numerous (<100). Some ascospores were forcibly discharged from the perithecia but numerous spores are still present; 4) semipermanent slides were prepared and after 80 days (on August 23, 1997) the agar disks containing the rabbit droppings and perithecia were removed, frozen and freeze-dried. Cultures were axenic although other fungi (inconspicuous in the final herbarium material) may have been present on the field-collected wild rabbit dung which was autoclaved. We have found that freeze-dried cultures provide excellent herbarium specimens. Perithecia removed to water mounts from such material yield very satisfactory views of asci, ascospores and so forth.