

Lamb, B.C. A simple plate cross technique.

The following method has been used successfully for plate crosses of a number of wild type and mutant strains. It provides large numbers of perithecia with fairly well synchronized development; dehiscent spores can easily be collected on the plate lid or an apposed surface.

Westergaard and Mitchell minimal reproductive medium, supplemented if necessary, in 9 cm. petri dishes is dried at 30° for about 7 days. 1 ml. of conidial suspension of the protoperithecial parent is spread evenly with a bent glass rod on each plate and incubated for 7 days. About 3 ml. of conidial suspension of the conidiating parent are then spread evenly over each protoperithecial culture. The plates are then incubated at the required temperature.

Approximately  $5 \times 10^5$  freshly-grown conidia/ml. have been used but conidial density need not be accurately adjusted. Excessive aerial mycelium is best removed from protoperithecial cultures before adding the conidial suspension. Temperatures of incubation from 17.5 to 27.5 C. have been used satisfactorily but the optimum initial period of drying of the medium varies with temperature of incubation and also with the protoperithecial strain used. ■ ■ ■ Genetics Laboratory, Department of Botany, University of Bristol.