CULTURAL REQUIREMENTS OF PHAEOMONIELLA CHLAMYDOSPORA

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Phaeomoniella chlamydospora is a fungal pathogen of woody grapevine tissue believed to be the main causal agent of "Petri grapevine decline" or "Black Goo". In order to facilitate research into the epidemiology of this disease, a number of cultural requirements of *P. chlamydospora* were investigated. Mycelial growth and spore germination was determined over a range of temperatures (5, 10, 15, 20, 25, 30, 35, 40 and 50°C). Mycelial growth occurred at 10 to 35°C with an optimum of 25°C ($P < 0.05$). At all temperatures some conidia had germinated 12 h after inoculation, but germination was significantly higher ($P < 0.01$) in the range of 20 to 35°C with 75 to 79% of spores germinated. Mycelial growth and sporulation of *P. chlamydospora* was determined on five media. Colony diameter was 17% greater on potato dextrose agar than malt extract agar ($P < 0.01$), whilst sporulation was 53% higher on malt extract agar ($P < 0.05$) than on potato dextrose agar. A range of chemical compounds was added to agar to test their ability to suppress fungal contaminants in order to aid isolation of the pathogen. Lithium chloride and a combination of benomyl and 2-phenylphenol were shown to inhibit the growth of a range of common fungal contaminants of grapevine wood.

A LABORATORY REARING METHOD FOR PORINA

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A simple method for rearing porina (*Wiseana* spp) was developed. Larvae hatched from sterilised eggs were transferred to containers half filled with damp bark chips (fine grade, commercially available). Individual rearing was carried out in 70 ml screw top specimen jars and mass rearing in ice cream containers. Larvae were fed plugs of a semi-synthetic diet placed on the surface of the bark chips. To make the diet, 12 g agar, 0.5 g sorbic acid, 1 g methyl-p-hydroxybenzoate and 300 ml distilled water, were boiled together in a microwave and allowed to cool to 70°C. To this was added 16 g powdered yeast, 1.6 g ascorbic acid, 1 ml 10% formaldehyde and 100 g each of fresh clover and carrot previously blended together in 200 ml distilled water. The diet was poured into Petri dishes and refrigerated until required. Larvae were provided fortnightly with fresh diet, or as required, and also fed on the bark chips. Rearing was carried out at 18°C. Pupae were removed from the bark and put with other pupae on damp vermiculite in larger containers for development to adults. Using this method, larvae could be reared through to adults in approximately 8 months.