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#### Survival of Botryosphaeriaceae species after hot water treatment

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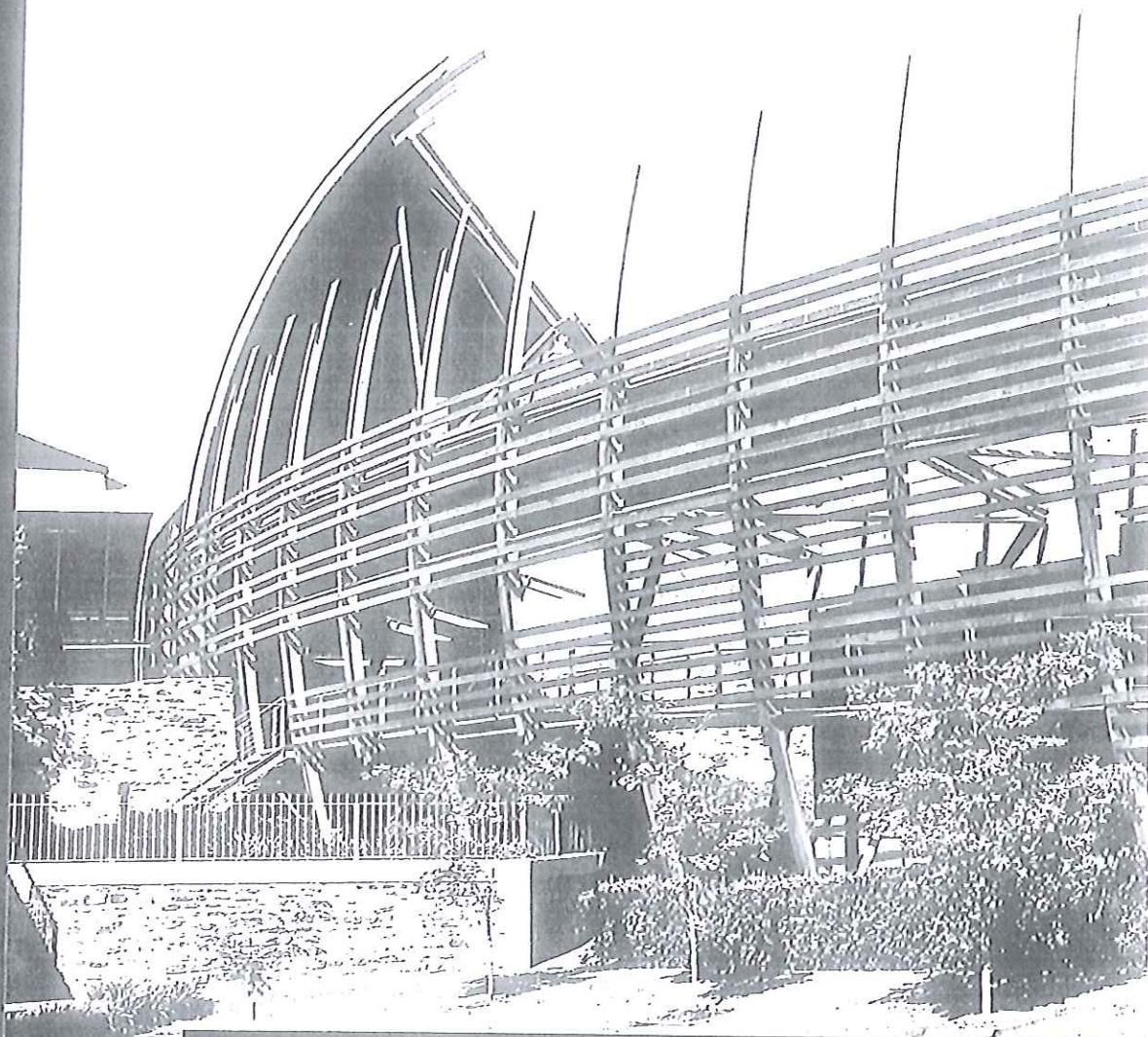
The use of hot water treatment (HWT) in the grapevine propagation process has been shown to be a potentially effective tool to control Petri and 'Black Foot' fungal pathogens. However, effects of HWT on Botryosphaeriaceae species had not been previously studied. Therefore, our objective was to evaluate the survival of eight different species of Botryosphaeriaceae after HWT in two different experiments. First, mycelial plugs contained in Eppendorf tubes with sterile distilled water were subjected to different combinations of temperature (50-54°C) and exposure time (15, 30 and 45 minutes) in a hot water bath. In a second trial, the fungi were inoculated into Richter 110 rootstock canes previously subjected to HWT. Inoculated canes were incubated at 25°C for three weeks to allow for fungal wood colonization and then were subjected to HWT in the range 50-53°C for 30 minutes. Survival of fungi after HWT was assessed in both trials. In addition, growth rates of treated mycelia were compared to untreated controls. Significant differences in survival and growth for all factors (species, temperature and time) and their interactions were observed in the *in vitro* assay. *Diplodia seriata*, *Dothiorella viticola*, *Neofusicoccum luteum* and *N. parvum* were the most susceptible species to temperature while *Lasiodiplodia* sp. and *N. vitifusiforme* were the most tolerant. In the *in planta* experiment, all species sharply reduced their survival after 30 minutes at 51°C. At 50°C, *Lasiodiplodia* sp. was the most tolerant taxon whereas *N. luteum* was the most susceptible. These results demonstrate the feasibility of controlling these pathogens by HWT.



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## PROGRAM & ABSTRACTS

