**DOES INOCULATION OF HYBRID BERRY FLOWERS
(*RUBUS* SPP.) WITH *BOTRYTIS CINEREA* CAUSE BERRY ROT?**

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Grey mould of boysenberries (*Rubus* hybrid) caused by *Botrytis cinerea* has caused substantial fruit losses in New Zealand when conditions favour disease development. Flower infection in spring is believed to be an important stage in the epidemiology of *B. cinerea* in boysenberry blocks, but there is little information on the relationship between flower infection and fruit rot at harvest. In the 1995/96 growing season, unsprayed fully opened flowers of hybrid berry Waldo and Boysen were dusted with conidia of *B. cinerea* in field and shadehouse experiments, respectively. Inoculation of flowers resulted in greater incidence ($P < 0.01$) of berry rot compared to the uninoculated control treatments. Culturing from plant tissue confirmed that *B. cinerea* was present in the styles and drupelets of inoculated flowers throughout the growing season. Infection of styles was closely correlated with infection of drupelets ($P < 0.001$), although incidence of the fungus was greater in the styles than the drupelets ($P < 0.05$). The results suggest that grey mould of *Rubus* hybrid berries is caused by *Botrytis* propagules in the styles and/or latent infection of drupelets. However, berry rot may also be due to *Botrytis* inoculum trapped between developing drupelets.

**THE ACTIVITY OF HYDROLASES IN LIQUID CULTURES OF
SILVERLEAF (*CHONDROSTEREUM PURPUREUM*)**

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Chondrostereum purpureum produces substances that can degrade cell walls of leaves and fruit of infected plants while little apparent degradation of woody tissue occurs. The activity of cellulose-degrading enzymes: cellulase, endoglucanase and cellobiohydrolase and pectin-degrading enzymes: polygalacturonase, pectin lyase, pectate lyase and pectin methyl esterase produced by the fungus were determined in liquid cultures. Cultures were examined after either 2 or 10 weeks of growth on either standard minimal media or with sawdust or polygalacturonate added as inducing substrates. After 2 weeks very low levels of all 3 cellulase-degrading enzymes were detected but at 10 weeks this activity was no longer detectable. Increased activity was not induced by sawdust in the medium. A more complex pattern was shown by pectin-degrading enzymes. Pectin methyl esterase displayed a similar response as the cellulose-degrading enzymes. Polygalacturonase increased steadily with time and was higher in cultures containing polygalacturonate. Very high levels of pectate lyase were found in the older induced medium but pectin lyase was never detected. These results suggest that the fungus targets pectic rather than cellulosic components of cell walls.