

P.51 The effect of dual inoculation (*Seimatosporium* species with/without GTD fungi) on lesion length (symptom expression) in Sauvignon Blanc vines.

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In a survey of the endophytic fungal diversity associated with grapevines symptomatic or asymptomatic for grapevine trunk-diseases (GTDs) carried out in Marlborough, New Zealand in 2018, several fungal pathogens were isolated. Among these, members of the Botryosphaeriaceae family, *Neofusicoccum parvum* (from symptomatic vines) and *Diplodia seriata* (from both symptomatic and asymptomatic vines) were recovered. These pathogens are considered latent and virulent GTDs. Additionally, two *Seimatosporium* species, *S. vitis* and *S. lichenicola*, were recovered for the first time associated with GTD fungi in New Zealand vines. Both species were isolated from symptomatic and asymptomatic tissues, but their role as pathogens and interaction within GTD complexes is unclear. This study investigated the interaction between these *Seimatosporium* spp. and *N. parvum* or *D. seriata* in the GTD complex and the effect on symptom expression. The outcomes of *in planta* dual inoculation experiments between *Seimatosporium* spp. and *N. parvum* or *D. seriata* isolated from the same wood cankers were evaluated. Detached Sauvignon blanc grapevine green shoots and two-year-old woody stems of potted grapevines were wounded and co-inoculated with mycelial colonised agar discs of *S. vitis* or *S. lichenicola* and *N. parvum* or *D. seriata*. Controls consisted of each fungal species inoculated alone. After 2 weeks for detached shoots and 4 months for attached shoots, lesion length and colonisation distance by re-isolation were assessed. In both assays, there were differences in the lesion lengths and pathogen movement for co-inoculation of both *Seimatosporium* spp. with *N. parvum*. In contrast, co-inoculation of either *Seimatosporium* spp. with *D. seriata* did not develop a lesion, although *D. seriata* were recovered at a distance of 5 cm upward and downward from the inoculation point. No lesions developed with *D. seriata*, *S. vitis*, or *S. lichenicola* inoculation alone. Our findings confirm that *Seimatosporium* spp. are involved in the GTD complex.