INHIBITION OF *Phytophthora* ROOT ROT OF AVOCADO WITH POTASSIUM SILICATE APPLICATION

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Phytophthora cinnamomi (Pc) causes avocado root rot which in severe cases leads to tree death. An alternative was sought to the use of phosphonate fungicides to control the disease. In greenhouse experiments, root rot in trees drenched three times with soluble potassium silicate was similar to that of uninoculated control trees. Silicate treatment of *Pc* inoculated trees rendered a better suppression of *Phytophthora* root rot than potassium phosphonate treatment, and silicate treated trees yielded the highest root mass. In field experiments done with Hass on Duke 7 trees in a *Pc* infested orchard, three soil drench applications of potassium silicate resulted in higher root densities than the untreated control as well as the potassium phosphonate (PA) treatment. Better results were obtained as regards root rot control during the drier periods (May 2005). Improved root densities were recorded for silicate treatments from Nov 2005 to July 2006. Furthermore, the data indicated that a single application of silicate was not effective. These results indicate that repeated application of potassium silicate as a soil drench has potential as an alternative control measure for avocado root rot.