

Anatomical Examination of *Phytophthora ramorum* Infection in *Camellia*

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In spring 2004 *Phytophthora ramorum* infection of camellia plants was reported at multiple nursery sites in California. Our research was initiated to examine the mode of infection of *camellia* plants with *P. ramorum* at the whole plant and cellular level. *Camellia* leaves were infected with *P. ramorum* via zoospores or plug inoculation. Leaf samples were harvested 3 hours and 1, 2 and 4 days after infection and fixed immediately for light and electron microscopy. Examination with light and scanning electron microscopy indicate that possible anatomical pathways for infection of *camellia* leaves include stomates and large sub-epidermal oil glands located on abaxial surfaces of leaves. Preliminary scanning electron microscopy in our laboratory indicates that stomates are the most likely site of initial infection.