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<http://www.apsnet.org/meetings/abstracts.asp>

Widmer, T.L. 2008. Comparing New Zealand and United Kingdom isolates of *Phytophthora kernoviae*. *Phytopathology* 98:S171.

Phytophthora kernoviae was discovered in the United Kingdom in 2003 and identified as a new species in 2005. Recent DNA sequence studies identified two unknown *Phytophthora* isolates collected in the 1950s and 2002 in New Zealand as *P. kernoviae*. The purpose of this study was to compare two isolates originating from New Zealand (PK-1 and PK-2) and two isolates originating from Cornwall, UK (PK-3 and PK-4). Mycelial growth on agar plates was similar for all isolates at 5, 10, 15, 20, 25, and 30°C. Sporangial production was about five to 10 times higher in liquid cultures for PK-3 and PK-4 than PK-1 and PK-2. However, isolate PK-3 could not be induced to release zoospores. *P. kernoviae* is homothallic and easily produces oospores in culture. Oospore production was similar for PK-1, PK-2 and PK-4, which were about three times higher than for PK-3. Inoculation of *Rhododendron* leaf disks with sporangial or oospore suspensions showed little difference in necrosis among the isolates, except for PK-3, which showed very little necrosis. Whole plant inoculations of *Magnolia stellata* and *Rhododendron* "Cunningham's White" showed higher necrosis when inoculated with sporangia of PK-1 and PK-2. These results show differences between the New Zealand and UK isolates of *P. kernoviae*. Future tests should include at least one isolate from each geographic location.