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

**Parke, J.L.; Oguchi, A.; Fichtner, E.J., and Rizzo, D.M. 2008.
Viability of *Phytophthora ramorum* after passage through
slugs. *Phytopathology* 98:S121.**

Phytophthora ramorum, the causal agent of sudden oak death, produces abundant chlamydospores; however, understanding the role of these potential survival structures in the disease cycle is difficult due to the low and variable rate of chlamydospore germination. Oospore germination of other *Phytophthora* spp. may be stimulated by passage through the alimentary canal of snails, but the effects of chlamydospore ingestion by molluscs are unknown. The viability of *P. ramorum* colonies was investigated after passing them through the alimentary canal of banana slugs (*Ariolimax* spp.) and grey garden slugs (*Derocerus reticulatum*). Slugs that were fed V8 agar cultures of *P. ramorum* produced feces that contained hyphae and chlamydospores. Broth-grown hyphae and chlamydospores were also applied to strawberries and fed to slugs. Slug feces from both sources plated onto *Phytophthora* selective media yielded *P. ramorum* colonies. Microscopic observation showed that many chlamydospores in fecal samples either germinated directly, often with multiple germ tubes, or indirectly to form sporangiophores. Sporangia production was abundant on fecal surfaces. Tanoak leaves inoculated with feces from culture-fed slugs became infected by *P. ramorum*. These results suggest that a portion of chlamydospores and hyphae that pass through the alimentary canal of slugs remain viable. The potential effect of slugs on chlamydospore germination and the possible role of slugs in disease transmission will be investigated.